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Negative Brand Experiences and Purchase Intention of Green Wall Coating Brands: The Mediating Effect of Brand Identity

Kongliang Zhu

Graduate School, Stamford International University, Thailand

E-mail: 316346676@qq.com

Abstract

The purpose of this study was 1) to explore the impact of consumers' negative experiences with green wall coating brands on the brand identity of wall paint, 2) to analyze the effects of brand identity with green wall coating brands on purchase intentions, and 3) to test the mediating effect of green brand identity. Utilizing a quantitative research approach and simple random sampling technique, this study engaged 402 Chinese respondents aged 18 and older, all of whom had relevant purchase experiences with green wall coating products. The data collected were subjected to Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) to assess model fit, as well as to establish the validity and reliability of the variables used in the study. The findings of this research revealed that all four dimensions of negative brand experience, which include negative functional experience (β =-0.189), negative emotional experience (β=-0.308), negative cognitive experience (β=-0.444), and negative social value experience (β= - 0. 134) , have a negative impact on green brand identity. Additionally, the study confirmed a positive relationship between green brand identity and the intention to purchase green wall coating brands (β=0.655). Finally, the study established that green brand identity acts as a partial mediator between negative brand experiences (negative functional experience, negative emotional experience, negative cognitive experience, and social value negative experience) and the purchase intention of green wall coating brands (β_{3a}=-0.124; β_{3b}=-0.054; β_{3c}=-0.126; β_{3d}=-0.050). In light of these findings, this research provides specific and practical recommendations and improvement strategies for businesses within the green wall coating industry. These insights are aimed at enhancing their services and bolstering their competitive advantage.

Keywords: Green brand identity, Green wall coating, Negative brand experience, Purchase intention

Introduction

In contemporary society, consumers demonstrate elevated discernment concerning the materials integral to their daily milieu, spanning from flooring to storage solutions and wall coatings. The global green building materials market size was valued around at USD 37 billion in 2022 (Fortune Business Insight, 2023). China's overall paints and coating market was estimated at USD 46.7 bn in 2021 Source- Nippon Paint Group. Architectural coatings account for 34% share of the total market on value basis (Jiaboli Chemical Group, 2022). This amplification in consciousness predominantly stems from health- related apprehensions associated with these materials. Paint, especially when applied expansively within residential spaces, holds notable significance. Consequently, the ecological compatibility of paint has emerged as an imperative criterion. Green paint, also known as green wall coating or environmentally friendly, refers to a type of building material used to cover and protect interior or exterior walls. It typifies a paint variant distinguished by specific attributes. It epitomizes non- toxicity, minimized environmental footprint, and proffers distinct functional advantages like UV resilience, pest deterrence, and moisture insulation (Spiegel & Meadows, 2010). Noteworthy is green paint's differentiation from traditional coatings, marked by superior hardness, tactile smoothness, durability, and anti- corrosive properties (Calkins, 2008). However, its salient hallmark remains its paramount safety concerning human health, making it a preferred choice for areas necessitating rigorous environmental adherence.

Consumer dynamics in the building material domain diverge from typical consumer goods paradigms (Eastman et al., 2011). Within the niche of green wall coatings, an offshoot of the expansive green construction material sphere, consumer patterns are sculpted by industry- specific nuances and the intricacies inherent to pioneering product integration. Manifest challenges encompass confined product familiarity, brand experience deficits, subdued green brand recognition, and a pervasive unawareness regarding specialized green wall coating enterprises (Kats et al., 2003). Scholarly discourse largely gravitates towards the green wall coatings' theoretical architecture, design, and fabrication methodologies (Wang, 2021). However, there is a noticeable gap in comprehensive investigations into green wall coatings from both business and consumer perspectives. Moreover, studies exploring consumer purchasing behavior related to green wall coatings are scarce within the academic realm. The booming real estate market has elevated building materials to essential commodities in the domain of interior decoration (Gu et al., 2023). Nevertheless, due to a lack of relevant knowledge and limited personal engagement, consumers often overlook this aspect (Wilson & Susanka, 2006). Consequently, consumers tend to have limited understanding and awareness of their interactions with brands offering green paint products.

Currently, market landscape is awash with entities purporting "green" construction material credentials, albeit with heterogenous quality benchmarks. This plethora has ignited animated deliberations regarding green wall coatings. Unfortunately, many consumers have experienced a decline in trust toward green material brands, a consequence of misinformation and the prevalence of subpar products. Notably, there is a general lack of trust in the claims made by companies. A comprehensive study revealed that merely 38% of Americans express trust in corporations most or all of the time when these companies assert their commitment to environmental friendliness. This reflects a noticeable decrease from the 47% reported in GreenPrint's 2021 study (Field, 2022). Augmenting the convolution are brands indulging in obfuscation in their promotional strategies. Such dynamics precipitate prevalent consumer misapprehensions green wall coating entities (Berawi et al., 2020). The dearth of readily

procurable and veracious product intel renders consumers incapacitated in their green wall coating selection endeavors. This informational void complicates the demarcation between genuine and ersatz green wall coatings. The resultant aftermath is a populace tainted by disingenuous green wall coating engagements, fostering cynicism and corroding faith in green material brands.

As a consequence, many consumers, influenced by negative encounters with green wall coatings or related aspects, have gradually become less trusting of green brands. This decline in trust has, in turn, led to a reduced willingness to purchase green wall coatings. Therefore, this study delves into the realm of green wall coating brand experiences to conduct an in-depth examination of how negative brand experiences impact the purchase intentions of green wall coatings. It analyzes the influence of different dimensions of brand experience on the purchase intentions of green coating brands and investigates the mediating role of green brand identity.

Objective

There are three research objectives. First, to examine the mechanism by which consumers' negative experiences with green wall coating brands impact the brand identity of wall coatings within the realm of green building materials; specifically, to analyze the influence of the four dimensions of negative experiences with green wall coating brands on the brand identity. Second, to study the mediating effect of green brand identity on the relationship between negative consumer experience and consumer purchase intention of green wall coating brands. Third, to provide specific practical suggestions or improvement strategies for green wall coating enterprises to develop effective marketing and promotion programs, so that the green brand can achieve better publicity and faster development. The findings of this research can assist green paint enterprises in strategically enhancing various aspects of their product experience. This, in turn, will assist in mitigating the adverse impacts of negative experiences, elevating their green marketing initiatives, and improving their management of green brands. Ultimately, it provides both theoretical and practical insights that can prove invaluable to building materials firms aiming to establish a robust green brand image.

S-O-R Model

The Stimulus-Organism-Response (S-O-R) Model, initially proposed by Mehrabian & Russell in 1974, originates from the neo-behaviorist domain of psychology. Its foundational concepts are rooted in the stimulus-response paradigm pioneered by Watson in 1913, the forebearer of classical behaviorism. This model delineates three primary elements: an initiating external stimulus, an intermediary organism mechanism, and a subsequent response. The term "stimulus" refers to external forces influencing an individual and affecting their mental state (Fu et al., 2021). Organism, in this context, denotes the internal processes and structures that mediate between an individual's external stimulus and their ultimate actions, reactions, or responses. This intervention process involves various activities such as perception, physiology, sensory responses, and cognitive processes (Pandita et al., 2021). Simply put, this theory suggests that specific external stimuli can lead to varied behavioral outcomes or ideation in individuals, with the organism serving as an intermediary over time (Fu et al., 2021). The S-O-R model helps explain the internal psychological changes caused by the individual being stimulated by the environment (Lin et al., 2020). The conceptual framework of this research, depicted in Figure 1, is rooted in the S-O-R model and corroborated by pertinent empirical literature from prior studies.

Negative Brand Experience Concept

In 2009, Brakus, Schmitt, and Zarantonello articulated that brand experiences are derived from brand-specific information, which includes facets like the brand's design lexicon, consumption ambiance, and affiliated services. The resultant brand experience engenders

consumer responses, precipitating a spectrum of psychological alterations, including shifts in perceived aesthetics, emotional states, and consequent behaviors (Brakus, Schmitt & Zarantonello, 2009). The current paper construes negative brand experience as the sequence commencing with brand-centric stimuli that incite adverse emotional reactions, spanning from the intrinsic psychological shifts to the overt emotional responses elicited by the brand. Drawing from Wang's (2021) classification and demarcation of negative brand experience, this research pivots primarily on delineating the attributes of negative brand experience. Integrating this with the specific features of the green wall coating brand, the negative brand experience bifurcates into four dimensions: negative functional experience, negative emotional experience, negative cognitive experience, and negative social value experience, respectively. Negative functional experience pertains to instances where the anticipated functional advantages, promised by the product, remain unrealized. For eco‑friendly paints, this might translate into deficiencies like diminished longevity, compromised durability, or a shortfall in environmental adherence standards. Negative emotional experience encompasses the absence of emotional consonance or fulfillment derived from brand interactions. For green wall coating brand, this could arise from unfulfilled emotional anticipations, culminating in diminished brand acknowledgment. Negative cognitive experience pertains to a dearth in informational enrichment concerning green paints or sustainable construction materials, both pre- and post-acquisition. Negative social value experience focuses on scenarios where the consumer's perception of social worth is lacking during their engagement with the product. Such adverse experiences are intrinsically tied to consumers' feelings of societal integration during green consumption. It mirrors how facets like personal values, educational attainment, and similar parameters are recognized or overlooked.

Green Brand Identity Concept

Underwood et al. (2001), informed by social identity theory, describe brand identity as an individual's affiliation with a brand, which is informed by their subjective interpretations. Though the notion of green brand identity is an offshoot of the broader brand identity concept, a consolidated and precise academic definition remains elusive. In his 2017 study on the catering sector, Wei underscored that consumers' brand identification often pivots on considerations about food's ecological health and its sustainability credentials. Such identification mirrors the congruence between brand ethos and individual values and aspirations. Transposing this to the realm of green wall paints, a subdomain of eco‑friendly construction materials, consumers' resonance with a green paint brand reflects their alignment with the brand's ecological principles. It also signifies an affirmation of the brand's commitment to sustainability, thereby bestowing an " environmentalist" badge on its consumers. Consequently, this research aligns with Wei's (2017) conceptualization of green brand identity. In this study, green brand identity is delineated as consumers' consonance with the environmental principles championed by a green wall paint brand. In our evolving market context, individuals possessing a green brand identity retain steadfast trust in the brand, holding the conviction that it will consistently champion ethical benchmarks, safeguard consumer interests, and ardently advocate for ecological values.

Green Purchase Intentions Concept

Shen et al. (2012) posit that green purchase intention denotes the inclination of consumers to procure green products, motivated predominantly by the products' sustainable characteristics. Contrarily, Roe et al. (2001) suggest that green purchase intention embodies a consumer's ambition to bolster environmental conservation via the acquisition of green products. Anchoring on green wall coatings as the focal point, this research delineates green

wall coating purchase intention as the propensity of consumers to opt for eco-friendly wall coating solutions that minimize environmental detriment.
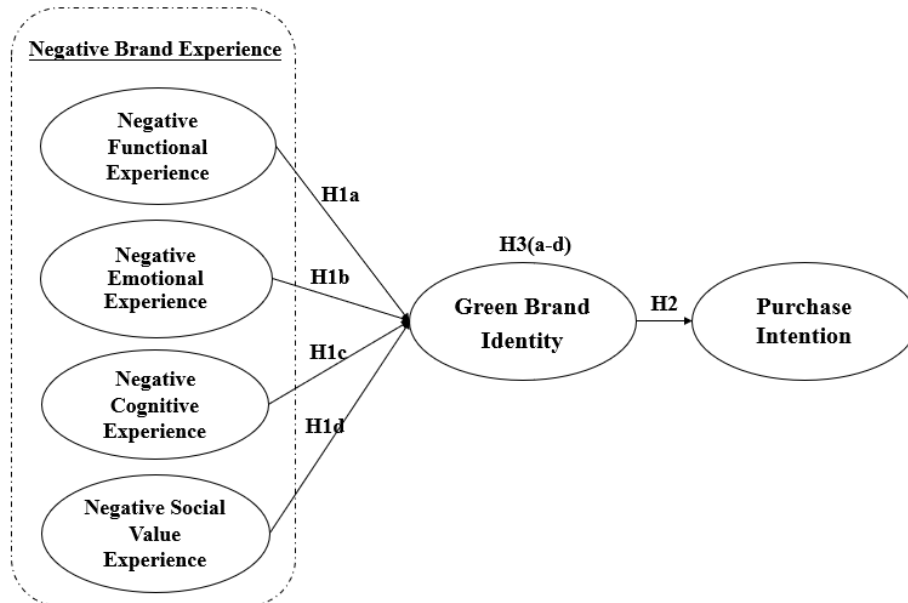
Figure 1 Conceptual framework

The Relationship Between Negative Brand Experience and Brand Identity

Consumer experiences exert a bifurcated influence, yielding both positive and negative repercussions. While positive interactions fortify the emotional ties between consumers and brands, negative encounters can attenuate these bonds and curtail consumers' intentions toward the brand. Aaker (1991) accentuates that such experiences are instrumental in molding consumers' brand identity, bridging the chasm between consumers and brands. Cova et al. (2007) postulate that experiential interactions are paramount in consumers' purchasing determinations. When brands meet or surpass consumer anticipations, it galvanizes the brand-consumer nexus and engenders a more favorable disposition. Yet, adverse encounters can erode brand allegiance. This sentiment is echoed by Tian et al. (2010), who attest those emotional experiences bolster brand identity affirmatively. Li (2013) underscores that uplifting brand encounters amplify brand identity, while Sha et al. (2010) contend that experiences exert an indirect sway over the internalized brand identity of consumers. Wang (2007) elucidates that corporations, through their marketing maneuvers, strive for acclaim from the societal and consumer spheres, achieved primarily through adept dissemination of corporate symbols via experiential touchpoints and promotional endeavors. Synthesizing insights from these academic luminaries on the nexus between brand experience and identity, this research contends that brand experiences indubitably mold brand identity. Propitious interactions proffered by firms augment consumers' affirmative brand perceptions, cementing emotional affinities and reinforcing brand identification. On the contrary, deleterious brand interactions can imperil brand identity, either undermining extant brand affections or engendering tenuous ones. From this exposition, the study advances the ensuing hypothesis:

H1: Negative brand experiences (negative functional experience, negative emotional experience, negative cognitive experience, and negative social value experience) have a significant negative effect on green brand identity.

The Relationship Between Green Brand Identity and Purchase Intention

Brand identity, as a type of brand attitude, holds a significant role among the various factors influencing consumers' purchase intentions. Río et al. (2001) ascertained that intensified consumer- brand identification amplifies tendencies for brand repurchase and ancillary behaviors, such as endorsing the brand within social circles. Cornwell & Coote (2005) emphasized that higher consumer brand identification during the consumption process makes it easier to stimulate purchase intentions. Khalid et al. (2016) affirmed that brand identification casts a favorable and marked imprint on purchase intention. Stokburger-Sauer, Ratneshwar & Sen (2012) observed that brand identification is quintessential in augmenting both brand loyalty and purchase intention of customers. Amplifying this perspective, Rather et al. (2019) contended that brands with pronounced identities magnetize consumers into higher monetary investments and iterative purchases (Rather et al., 2019). Pertinently, in the specific context of green wall coating brands, Paul et al. (2016) posit that consumers' buying tendencies crystallize only when they harbor trust in the brand's eco- centric attributes and resonate with the brand's overarching ethos. Consequently, this study formulates the following hypotheses:

H2: Green brand identity has a positive effect on purchase intention of green wall coating brands.

The Mediating Effect of Green Brand Identity

In the intricate tapestry of brand interactions, brand identity is often recognized as a mediating variable. Casaló & Guinalíu (2008) posited that brand identity intermediates the linkage between brand commitment and customer loyalty. Validating this, Río et al. (2001) elucidated that brand identity is the linchpin that connects attitudinal loyalty with behavioral loyalty. Likewise, He & Li (2011) discerned that the ripple effect of service quality on service brand loyalty transpires indirectly through the lens of brand identity. Diving deeper, Kuenzel & Halliday (2010) underscored that brand identity sits at the nexus between brand reputation and loyalty. Stokburger-Sauer (2011) advanced the idea that national brand identity channels the relationship between individual personality alignment and intentions to visit. Adding granularity, Bhattacharya & Sen (2003) highlighted that customer-brand identification brokers the bond between self- congruence and customer behavior. Supplementing this body of work, Han et al. (2019) indicated that brand identity plays an intermediary role, connecting brand prestige, symbol allure, and brand experience with brand loyalty. Ratasuk (2022) provided insights from Bangkok's convenience store coffee chain landscape, positing that brand identity serves as a complete bridge between promotional activities and brand loyalty. Translating this to the green consumption domain, consumers' tangible functional and emotional engagements with green commodities potentiate their brand cognizance and embrace of green- oriented offerings. This catalyzes a reinforced brand identity tethered to green product utilization. More profoundly, green brand identity emerges as a key determinant of behavioral outcomes, significantly coloring consumers' purchase predilections concerning green wall coating brands. Addressing the adverse brand experiences explored herein, such dissonant engagements ensue when consumers grapple with less- than- satisfactory brand interactions, precipitating an attenuated internal brand affinity for the green brand. This, invariably, dampens their green buying motivations. Consequently, this research formulates the following hypotheses:

H3: Green brand identity plays a mediating role between negative brand experiences (negative functional experiences, negative emotional experiences, negative cognitive experience, and negative social value experience) and purchase intentions of green wall coating brands.

Methodology

This research adopted a quantitative approach as a systematic and measurable method. The data of study was collected by using online questionnaires as a survey instrument which the measurement items were adapted from previous research with similar context of study. The adapted questionnaires were reviewed to validate content consistency under the Item Objective Congruence (IOC) process by three professors with doctoral degrees in marketing and a minimum of 20 years of active involvement in both academia and industry. Their expertise spans a wide spectrum of marketing disciplines, ensuring a comprehensive evaluation of the questionnaire's relevance, clarity, and effectiveness in capturing the nuances of consumer perceptions. The researcher also conducted pilot testing of verified questionnaires with 50 test participants before distributing the actual survey. Then, in total 424 answers from respondents were received but only 402 were qualified to proceed for data analysis. The collected data was then analyzed using confirmatory factor analysis (CFA) and structural equation model (SEM) to test the construct and discriminant validity, fitness of research model, as well as research hypotheses.

Population and Sample

The target population selected for this research comprises Chinese adult customers who are 18 years of age or older and have prior experience purchasing green wall coating products. We chose adults to avoid potential complexities related to obtaining parental consent and ensuring that the research adheres to legal requirements, ensuring that participants fully understand the purpose, risks, and benefits of the study before deciding to participate. This population was chosen due to their familiarity with green wall coating brands and their personal experiences related to brand selection. The green wall coating brands involved in this study mainly include Nippon Paint, ICI Paint, Beijing Red Lion, Hampel Hai Hong, Shunde Huarun, China Paint, Camel Paint, Shanghai Huli, Wuhan Shanghu, Shanghai Zhongnan, Shanghai Sto, Shanghai Shenzhen and Guangzhou Zhujiang Chemical, etc. These brands are available in China and have gained international recognition. To determine the sample size, Cochran's formula (1977) was employed, considering that the exact population size was unknown. The calculation indicated that a sample size of 384 would be appropriate to minimize errors and incomplete responses. Consequently, the researcher collected 402 valid samples to ensure adequate coverage.

Research Instrument

After the questionnaire was verified for internal consistency with IOC and pilot test, online questionnaire form was created by using Google Form. The questionnaire consisted of three sections. The initial section comprised screening questions that required respondents to answer with either a "yes" or "no" response. These questions were designed to filter and identify suitable participants. If the response was "no," it indicated that the respondent did not meet the qualification criteria, and they were instructed to terminate the questionnaire. In the second section, five demographic information questions are listed to indicate background of the respondents. The final section involved the assessment of all measurement items related to the six variables under investigation. Respondents were asked to express their level of agreement or disagreement using a seven-point Likert scale. The measurement scales employed in this study were adapted from well- established measures found in previous research conducted by reputable scholars (see Table 1 for details).

Table 1 Source of measurement item in questionnaire

Variable	Measurement Items	Source
Negative Functional Experience (NFE)	This green wall coating product does not function as advertised. This green wall coating product is not easy to use or durable. I am worried about the safety of this brand of green wall coating.	Brakus et al. (2009); Fan & Li (2006)
Negative Emotional Experience (NEE)	Throughout the entire purchasing process, my emotions did not turn out positively. The entire process of purchasing and using it is an unpleasant memory. I felt dissatisfied with the way the staff communicated with me and managed the situation.	Fan & Li (2006); Ning & Wang (2016)
Negative Cognitive Experience (NCE)	Throughout the entire purchase and use process, I learned nothing new about green wall coatings or new ways of thinking about them. Throughout the purchase and use process, I felt my own knowledge base regarding green wall coatings was inadequate. Throughout the purchase and use of this green wall coating, I did not have a very good understanding of the features and other aspects of this green wall coating brand. I did not apply my extensive prior experience with wall coatings during the entire purchase and usage process.	Brakus et al. (2009); Wang (2021)
Negative Social Value Experience (NSVE)	The entire purchase and use process did not meet my initial expectations for the brand. Buying this green wall coating does not enhance my social approval among friends. Buying this green wall coating did not provide me with a sense of achievement. This green wall coating does not reflect my uniqueness and personality.	O'Cass & Grace (2003); Ning & Wang (2016)
Brand Identity (BI)	I chose the green wall coating brand because I identify with the values it conveys. I chose the green wall coating brand because I identify with the lifestyle it conveys. I chose the green wall coating brand because the image of the personality it represents matches mine. I chose the green wall coating brand because its use reflects my social standing. I chose the green wall coating brand because its use grants me the recognition and respect of others. I chose the green wall coating brand because it helps distinguish me from various groups.	Jin (2006)
Purchase Intention (PI)	I would like to purchase the green wall coating brand. I am likely to recommend my friends to buy green wall coating brands. I am likely to return to buy green wall coating brands. I am likely to consider green wall coating brands soon.	Lertkitjanuwat (2017)

Data Collection

      The data of the study was collected by using online questionnaires as a survey instrument which the measurement items were adapted from previous research with similar context of study. Sampling techniques applied for data collection was simple random sampling. The researchers used social media (e. g., WeChat, QQ, FaceBook, Line, and Instagram) as a tool to invite people to complete the self-administered questionnaires. The data were collected in China from September to October 2023.

Data Analysis

      The data was assessed by CFA using AMOS28 to find construct validity, convergent validity (factor loading, CR, AVE), discriminant validity and model fit. After that, SEM was employed to test the relationship between all variables.

Results

Demographic Characteristics

      Among the total participants (N = 402), nearly half, specifically 49.23%, identified as male, while the remaining 50.77% identified as female. The predominant age group within the sample fell within the range of 26 to 45 years, comprising a significant majority at 70.34%. Regarding educational attainment, the largest segment of respondents, constituting 42.1% of the sample, were college students with Bachelor's degrees. This group represented the primary category of participants, followed by individuals with higher education qualifications (Master's degree and above), accounting for 29.9%. Among the respondents, those with a monthly income ranging from 5,000 to 8,000 yuan comprised the largest subgroup, with the majority being employed in either the government sector (24.6%) or the private sector (23.1%).

Common Method Variance

      To address the potential common method variance (CMV) that may arise from collecting data from a single source, this study conducted an examination to assess multicollinearity using both the variance inflation factor (VIF) and correlation coefficients. The VIF values observed in this study were comfortably below the commonly accepted threshold of 5 (Hair et al., 2019). Additionally, all pairwise correlation coefficients between variables were found to be less than 0.8 (Studenmund,1992). These findings collectively suggest that multicollinearity is not a significant concern within the dataset.

Measurement Model

      To assess the validity of the variable items and the measurement model, a Confirmatory Factor Analysis (CFA) was conducted. The study's construct validity was evaluated by examining both convergent validity and discriminant validity. The measurement model's convergent validity was assessed using three key criteria: factor loadings, composite reliability (CR), and Average Variance Extracted (AVE), as presented in Table 3. The criteria for acceptable convergent validity include factor loadings above 0.5 (Chen & Tsai, 2007), CR values exceeding 0.6, and AVE values greater than 0.5 (Fornell & Larcker, 1981). These results collectively demonstrate that the measurement model exhibits satisfactory convergent validity.

Table 2 Loading factor and validity test

Construct		Factor Loading	SMC	C.R. >0.7	AVE >0.5
Negative Functional Experience (NFE)	NFE1	0.779	0.607		
	NFE2	0.879	0.773	0.884	0.719
	NFE3	0.882	0.778		
Negative Emotional Experience (NEE)	PRI3	0.833	0.694		
	PRI2	0.758	0.575	0.845	0.645
	PRI1	0.816	0.666		
Negative Cognitive Experience (NCE)	NCE1	0.815	0.664		
	NCE2	0.717	0.514	0.879	0.646
	NCE3	0.781	0.610		
	NCE4	0.892	0.796		
Negative Social Value Experience (NSVE)	NSVE1	0.714	0.510		
	NSVE2	0.768	0.590	0.845	0.577
	MSVE3	0.811	0.658		
	NSVE4	0.743	0.552		
Brand Identity (BI)	BI1	0.721	0.520		
	BI2	0.825	0.681		
	BI3	0.895	0.801	0.915	0.645
	BI4	0.807	0.651		
	BI5	0.802	0.643		
	BI6	0.756	0.572		
Purchase Intention (PI)	PI1	0.731	0.534		
	PI2	0.919	0.845	0.905	0.706
	PI3	0.881	0.776		
	PI4	0.818	0.669		

Discriminant validity was assessed in the subsequent step of the analysis. The results, as presented in Table 3, indicate acceptable discriminant validity. This is evident because each construct's correlation coefficient with other constructs is lower than the square root of the AVE for that construct (Diagonal values). The criteria proposed by Fornell & Larcker (1981) for discriminant validity have been met, confirming that the constructs in the study are distinct and not highly correlated with each other.

Table 3 Discriminant validity

	1	2	3	4	5	6
1.NFE	**0.848**					
2.NEE	0.456	**0.803**				
3.NCE	0.469	0.446	**0.804**			
4.NSVE	0.503	0.521	0.491	**0.760**		
5.BI	0.381	0.369	0.398	0.371	**0.803**	
6.PI	0.443	0.417	0.442	0.452	0.497	**0.840**

Structural Model Analysis

In this research, structural equation models were analyzed using AMOS28. To assess the goodness of fit (GoF), which indicates how well the structural equation model aligns with the collected data (Schermelleh-Engel et al., 2003), we compared the statistical values obtained in this study with the acceptable values referenced from previous literature. The results, as shown in Table 4, revealed that the values of various GoF indices such as CMIN/DF, GFI, AGFI, NFI, CFI, IFI, TLI, and RMSEA exceeded the acceptable thresholds. This indicates that the research conceptual model fitted the data well.

Table 4 Fit indices of structural models

Fit indices	χ^2 /df	GFI	AGFI	CFI	NFI	IFI	TLI	RMSEA
Recommended Values	<3	>0.9	>0.8	>0.9	>0.9	>0.9	>0.9	<0.05
Structural Model	2.485	0.917	0.887	0.965	0.952	0.965	0.957	0.045

Hypotheses Testing

Table 5 presents the outcomes of the structural model analysis, and it is noteworthy that all the hypotheses put forth in this study received empirical support. Specifically, negative functional experiences (β = -0.189; $p < 0.001$), negative emotional experiences (β = -0.308; $p < 0.001$), negative cognitive experiences (β = -0.444; $p < 0.001$), and negative social value experiences (β = -0.134; $p < 0.05$) were found to have a negative impact on green brand identity (Hypotheses 1a-1d). Furthermore, the analysis revealed a significant positive relationship between green brand identity and green purchase intention (β = 0.655; $p < 0.001$), thus confirming Hypothesis 2. These findings collectively contribute to our understanding of how various experiential dimensions influence green brand identity, which in turn affects consumers' intentions to purchase green wall coating.

Table 5 Result of hypothesis test

Hypothesis	Path	β	Estimate	S.E.	C.R.	P	Result
H1a	NFE→BI	-0.189	-0.241	0.068	-3.527	***	Accepted
H1b	NEE→BI	-0.308	-0.353	0.064	-5.528	***	Accepted
H1c	NCE→BI	-0.444	-0.281	0.023	-12.156	***	Accepted
H1d	NSVE→BI	-0.134	-0.148	0.058	-2.570	*	Accepted
H2	BI→PI	0.655	0.675	0.049	13.883	***	Accepted

Note: *P< 0.05; **P<0.01; ***P<0.001

Mediating effects testing of Green Brand Identity

In accordance with the approach recommended by Preacher & Hayes (2008), the mediation hypothesis was evaluated using bootstrapping to scrutinize indirect effects. The outcomes of the mediation testing are presented in Table 6. Concerning H3a, the indirect effect, quantified at -0.124, with a 95% Bootstrap Confidence Interval (Boot CI) of [Lower Limit (LL) = 0.012, Upper Limit (UL) = 0.113], demonstrated a lack of overlap with zero in either direction, as delineated in the method outlined by Preacher & Hayes (2008). This signifies the presence of a significant mediating effect for H3a. Correspondingly, H3b was subjected to examination, revealing that brand identity acted as a mediator in the relationship between negative emotional experiences and purchase intention (H3b: 95% Boot CI [LL = 0.008, UL = 0.086]). Furthermore, H3c proposed that brand identity mediated the impact of negative cognitive experiences on purchase intention. Lastly, the indirect effect stemming from negative

social value experiences on purchase intention through the intermediary of brand identity yielded a negative coefficient of -0.050 (H3d), with a 95% Boot CI of [LL = 0.016, UL = 0.147]. This outcome suggests that negative social value experiences exert a negative influence on purchase intention through the mediating role of brand identity, thereby affirming the validity of H3d.

Table 6 Analysis of mediating effect of green brand identity

Relationships	Point Estimate	p	Bias-corrected 95% CI		Mediating or not?
			Lower	Upper	
Indirect Effects					
H3a: NFE→BI→PI	-.124	***	.012	.113	Yes
H3b: NEE→BI→PI	-.054	**	.008	.086	Yes
H3c: NCE→BI→PI	-.126	***	.013	.034	Yes
H3d: NSVE→BI→PI	-.050	**	.016	.147	Yes

Note: $*P< 0.05$; $**P<0.01$; $***P<0.001$

Table 7 Result of all hypotheses

Hypothesis	Path	β	Result
H1a	NFE→BI	-0.189	Accepted
H1b	NEE→BI	-0.308	Accepted
H1c	NCE→BI	-0.444	Accepted
H1d	NSVE→BI	-0.134	Accepted
H2	BI→PI	0.655	Accepted
H3a	NFE→BI→PI	-0.124	Accepted
H3b	NEE→BI→PI	-0.054	Accepted
H3c	NCE→BI→PI	-0.126	Accepted
H3d	NSVE→BI→PI	-0.050	Accepted

Discussions

The research landscape concerning green wall coatings predominantly pivots around their production methodologies and the broader spectrum of eco- friendly construction materials. Yet, there remains an observable lacuna in scholarly endeavors probing into the consumer engagement and experiential facets of green wall coatings. Addressing this gap, the present investigation positions green wall coatings at its epicenter and propels empirical inquiry into this realm. The cardinal objective of this research is to discern the reverberations of four distinct facets of negative brand experience on the edifice of green brand identity. Concurrently, the study endeavors to quantify the ramifications of green brand identity on purchase intention tied to green wall coating brands. An ancillary exploration is directed towards uncovering the potential intermediating dynamics of green brand identity within these interrelations.

Firstly, it is important to note that the four dimensions of negative brand experience, encompassing negative functional experience, negative emotional experience, negative cognitive experience, and social value negative experience, all exert a negative influence on green brand identity. To elaborate further, there exists a significant negative correlation between negative functional experience and green brand identity ($β$ = -0.189; $p < 0.001$). This outcome aligns with prior research conducted by Wang (2021) and Li (2013). Green wall coatings possess functional attributes, particularly pertaining to health and safety. These

environmental attributes are closely intertwined with consumer interests in health and safety. Consequently, consumers make choices regarding green paint products based on considerations related to various functions, including health, durability, and environmental protection, among other factors. When consumers' real-world experiences fail to align with their expectations, or when they perceive a discrepancy between advertised standards and actual experiences, their recognition of the green brand diminishes. This dissonance results in a negative perception of the green wall coatings' brand identity.

Secondly, there exists a significant negative correlation between negative emotional experiences and green brand identity (β = -0.308; $p < 0.001$), which corroborates the findings of a previous study conducted by Tian et al. (2010). Consumers have come to recognize that the consumption of green wall coatings extends beyond the functional attributes of the product itself. It encompasses the brand's service and emotional connections as essential criteria. With the advancement of living standards and education levels, there is an increasing emphasis on the emotional aspects of service during the consumption process. When negative emotions arise in the course of consumption, or when consumers find themselves dissatisfied with the service provided by relevant personnel, it becomes challenging for them to establish a sense of identification with the green brand.

Thirdly, a significant and noteworthy result of this study is the observed negative correlation between negative cognitive experiences and the formation of a green brand identity (β = -0.444; $p < 0.001$). This result emphasizes the substantial influence of negative cognitive experiences on how consumers perceive the consumption of green wall coatings, subsequently affecting their alignment with the attributes of green brands. Consequently, these altered perceptions have a clear impact on their intentions to purchase green wall coatings. This finding is consistent with the findings of Li (2013) and Wang (2021).

Additionally, a significant negative correlation was observed between negative social value experiences and the development of a green brand identity (β = -0.134; $p < 0.05$). This finding resonates with the conclusions drawn in the research conducted by Stokburger-Sauer et al. (2012). Consumers engage with green wall coating products not only for personal benefits but also for social recognition and to emphasize their individuality. Within the context of "face culture," individuals aspire to receive commendation from peers for their environmentally conscious choices and to project an image of environmental stewardship to the external world. Furthermore, when surrounded by peers making green brand choices, consumers tend to align themselves with the trend to avoid standing out, thereby gaining a sense of social value recognition.

Moreover, the results of this study formalize the positive relationship between green brand identity and the intention to purchase green wall coating brands (β = 0.655; $p < 0.001$). In the context of green products, it is widely acknowledged that when the environmental characteristics of green wall coating products align with consumers' expectations, individuals are more inclined to perceive the use of these products as environmentally beneficial. They tend to believe that their personal green purchasing behavior contributes to mitigating environmental issues, consequently reinforcing their brand identity and fostering a heightened willingness to engage in such purchases. In essence, when consumers genuinely experience the favorable attributes of green wall coatings during their consumption and use, their intentions to make green purchases become more resolute. This is consistent with the findings of Khalid et al. (2016) and Rather et al. (2019).

Finally, this study confirms that green brand identity plays a partially mediating role between negative brand experience (namely negative functional experience, negative emotional experience, negative cognitive experience, and social value negative experience) and

purchase intention of green wall coating brands ($\beta_{3a}=-0.124$; $\beta_{3b}=-0.054$; $\beta_{3c}=-0.126$; $\beta_{3d}=-0.050$). The majority of prior research has primarily focused on examining the influence of positive brand experiences. Their findings consistently demonstrate that positive brand experiences directly contribute to the formation of brand values, establishing a shared consumption attitude with consumers. This alignment often serves as a pivotal driving force behind consumers' inclination to engage in brand purchases and exhibit purchase intentions. In contrast, the impact of negative brand experiences has received relatively scant attention. Furthermore, scholars have not provided a definitive conceptualization of brand attitude and recognition that significantly influence consumer purchase intentions. Hence, this study introduces the variable of green brand identity as a mediator in this context, and verifies that it partially mediates the relationship between negative experiences with green wall coating brands and purchase intentions.

Conclusion and suggestions

The findings of this study offer valuable insights and recommendations for managers, marketers, and owners of green wall coating brands. Firstly, companies should focus on enhancing the publicity of their green wall coating brands while avoiding false advertising. It is crucial that in their efforts to increase brand awareness, companies prioritize improving factors related to green wall coating brand publicity. Rather than blindly expanding publicity, the emphasis should be on ensuring the long-term and sustainable development of the business. When conducting green wall coating brand publicity, it is essential to strike a balance between increasing visibility and maintaining the authenticity of the product. The information presented in publicity materials must align with the actual consumer experience to reinforce its effectiveness. Any discrepancies will erode consumer trust. Additionally, wall coating enterprises should actively engage in sponsoring social welfare and environmental protection initiatives. This involvement helps convey a positive image of the company as a responsible and environmentally conscious brand. By doing so, companies can establish a positive corporate culture and image that resonates with consumers.

Subsequently, it is essential for enterprises to disseminate knowledge related to their products and raise awareness about environmental issues among consumers. During the process of brand publicity, companies should not only promote their own green wall coating products but also continuously educate consumers about the fundamental aspects of green wall coatings and industry standards. This educational effort aims to ensure that consumers have a comprehensive understanding of the benefits of green wall coatings and that they develop a strong sense of green consumer values. This, in turn, can stimulate the growth of the broader green building materials industry. Furthermore, companies should ensure that their products meet high-quality standards and comply with relevant regulations. Products that demonstrate excellent quality and meet the necessary requirements are more likely to appeal to consumers, thereby reinforcing their purchase intentions. Additionally, intensified publicity within the green industry can foster greater recognition among consumers for green consumer values and corporate culture. Simultaneously, enterprises should integrate their publicity efforts with the seriousness of environmental pollution. By conveying the gravity of environmental pollution issues, consumers will recognize the close connection between environmental pollution and their daily lives. They will understand that environmental pollution poses significant threats to their well-being. While emphasizing the severity of environmental pollution, companies should also emphasize the ways in which their products contribute to resource conservation and reduce harm to the environment. This messaging helps consumers believe that their green purchasing

behavior can genuinely alleviate or resolve environmental problems. Consequently, they develop stronger purchase intentions as they see themselves playing a meaningful role in addressing environmental challenges through their personal actions.

Furthermore, companies should place a strong emphasis on service training to elicit positive consumer emotions. Enhancing the service training for relevant personnel is vital for securing positive evaluations from consumers regarding their products or brands. This study underscores that negative emotional experiences have a significant impact on consumer purchase intentions. Hence, enterprises must pay close attention to the emotional needs of consumers and continuously refine their service offerings. By doing so, companies can foster positive emotional connections throughout the entire consumer journey. By initially improving the emotional experiences of consumers, companies can swiftly establish their own competitive edge within their industry. Additionally, this approach ensures that consumers feel comfortable and valued during their interactions with the company, thereby enhancing the company's competitiveness relative to its peers.

Finally, companies should proactively assist consumers in developing a green brand identity. Many consumers lack a strong green brand identity due to limited understanding of green brands and green products. When consumers recognize their knowledge gaps regarding green brands or products, they tend to develop an interest in green brands. This interest can be channeled into learning about relevant knowledge, comparing green brands with non-green counterparts, and ultimately strengthening their identity with green brands. Therefore, enterprises need to take advantage of consumer curiosity, as well as for consumers to show interest in learning about green product knowledge, take the initiative to solve their related problems, popularize the relevant product knowledge, and guide them to establish a sense of identity for the green wall coating brand, thus strengthening their willingness to buy the green wall coating brand.

New knowledge and the effects on society and communities

In the specific domain of green paints, scholarly investigations have predominantly revolved around the production processes of green paints and related building materials, with minimal attention given to the consumption patterns of green paints. Remarkably, there is a dearth of studies focusing on the impact of negative brand experiences in this domain. This study seeks to address this gap by conducting a comprehensive exploration of Chinese consumers' negative brand experiences with green wall coatings, taking into consideration the unique characteristics of these products. Through this research, we have not only confirmed the adverse influence of four distinct dimensions of negative brand experiences with green wall coatings on purchase intentions but have also examined the mediating role played by green brand identity. These findings contribute significantly to the existing body of knowledge on consumer brand experiences and offer empirical substantiation for future investigations into the purchasing behavior of green paints. Furthermore, our results provide valuable insights for green wall coating enterprises, enabling them to tailor their product experiences to mitigate the negative repercussions of such adverse experiences. This, in turn, aids in the establishment of a robust green brand image for building materials companies. Additionally, our study can assist green wall coating enterprises in refining their green marketing strategies and enhancing their management of green brands, enabling them to effectively counter the detrimental impacts of negative brand experiences. Ultimately, our research contributes to the formulation of policy recommendations for green paint brand that can support the long-term sustainable development of green brands in the industry.

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02

Environmental Laws Awareness and Green Household Practices among Pre-service Teachers of Batangas State University-JPLPC Malvar, Philippines

Genalyn P. Lualhati, Kim Angela H. Natividad and Diana Mae C. Sarmiento

College of Teacher Education, Batangas State University, The National Engineering University, JPLPC Malvar, Malvar, Batangas, Philippines

E-mail: mrslualhati@gmail.com

Abstract

The significance of schools and educators in fostering environmental awareness cannot be overstated. This descriptive correlational study aims to evaluate the level of awareness of environmental laws and the adoption of green household practices among pre-service teachers at a state university in the Philippines. By utilizing a modified research questionnaire and appropriate statistical analyses, the study reveals that respondents possess awareness of the environmental laws in place in the Philippines. When it comes to green household practices, respondents practiced waste management and demonstrate a high practice of resource management. Upon correlating these two variables, a significant relationship emerges, underscoring the influence of pre-service teachers' environmental law awareness on their adoption of green household practices. To further enhance environmental awareness and promote sustainable living, the study recommends the implementation of seminars or webinars that focus on imparting knowledge about green household practices and their role in fostering sustainability.

Introduction

The environment encompasses all that surrounds us, including living and non-living elements, which collectively support life on Earth. In recent years, our environment has been undergoing profound and often alarming transformations, deviating from a sustainable path. The natural world is strained, pushed to its limits by human activities and negligence. Amid these challenges, the awareness and practices of pre-service teachers hold great significance, as they are entrusted with the responsibility of imparting environmental knowledge to their students.

Education plays a crucial role in shaping attitudes and behaviors toward the environment. Therefore, educators must be well-informed about the environment and the environmental laws that govern it in the Philippines.

The practices of pre-service teachers within their households carry particular weight, as these habits directly influence their ability to instill environmental awareness in their future colleagues and students. Education coupled with action constitutes a powerful force for change in the realm of environmental consciousness. Households, as central units within communities, wield substantial influence, not only on the individuals residing within but also on government policies and decision-makers (Lane & Gorman-Murray, 2011).

Educators are tasked with the vital mission of raising environmental awareness through environmental education. As articulated in the Belgrade Charter by UNESCO (2013), the overarching goal of environmental education is to cultivate a population that not only understands and empathizes with environmental issues but also possesses the knowledge, attitudes, motivation, and dedication to take action individually and collectively, addressing current environmental challenges and preventing future ones.

The Philippines has enacted Republic Act 9512 of 2008 to advance environmental awareness through environmental education. This legislation mandates that educational institutions, organizations, and relevant agencies incorporate environmental education into their curricula at all levels, whether public or private.

A critical assessment of public policies, environmental policies, and environmental education literature reveals a pressing need for a well-informed society, given the escalating environmental issues of recent decades. Students, as future leaders, can serve as catalysts for environmental change. Environmental education has the potential to reshape the understanding and attitudes of both teachers and students. To initiate change, individuals must be well-informed about their environment, as awareness is the foundation and starting point for environmental literacy (Butcher, 2015). The current state of public environmental literacy significantly influences whether individuals are inclined to take action and participate in shaping public policies aimed at improving the environment.

However, environmental awareness alone is insufficient to ameliorate environmental degradation. Household practices must align with this awareness to effect positive change. Humans possess the capacity to either utilize natural resources to their advantage or detriment. The diversity of species benefiting from the natural environment underscores the importance of responsible resource usage. Misuse of these resources has led to the depletion of ecosystems and natural habitats, potentially harming other species. Harnessing our full potential as humans for the betterment of all species can lead to substantial benefits and a more sustainable future.

In light of these considerations, this study seeks to explore the environmental awareness and green household practices of pre-service teachers in the Philippines. By understanding

their knowledge and behaviors related to the environment, this aims to shed light on their role as future educators and advocates for sustainability. Moreover, this study is vital for the researchers, who are future science teachers, because it empowers them with the knowledge and awareness of environmental laws, enabling them to incorporate up-to-date and accurate information into their science curricula. It also emphasizes the practical application of green household practices, equipping them with firsthand experience they can share with students, fostering a culture of sustainability.

Theoretical Framework

The Theory of Planned Behavior (TPB) by Ajzen (1991) is the most appropriate theoretical framework for this study because it focuses on behavioral intentions, attitudes, subjective norms, and perceived behavioral control, all of which are central to understanding how pre-service teachers' environmental awareness and green household practices are influenced. TPB enables an in-depth examination of their intentions to engage in sustainable behaviors, their attitudes toward environmental issues, the impact of societal norms, and their perceived control over green practices. This theory's adaptability to various contexts and behaviors makes it a strong choice for investigating the complex interplay between awareness, environmental laws, and sustainable practices among pre-service teachers.

In summary, TPB enhances the depth and breadth of this research because it provides a structured framework to explore the motivations and intentions that drive pre-service teachers' actions concerning environmental awareness and green household practices. By doing so, it equips us with valuable insights that can inform strategies for promoting sustainability within educational settings and beyond.

Objectives

The purpose of this study is to determine the level of awareness on environmental laws and household practices among the teacher education students of Batangas State University JPLPC- Malvar during the academic year 2020- 2021. Specifically, the study aims to:
1. Identify the respondents' level of awareness on environmental laws;
2. Describe the respondents' green household practices in terms of:
    2.1 Waste Management; and
    2.2 Resource Management;
3. Correlate respondents' awareness on environmental laws and their household practices; and
4. Propose a webinar on sustainability.

Methodology

Research Design

This study utilized descriptive correlational research design because it allows for a thorough and systematic examination of two key aspects which are the accurate description of respondents' awareness of environmental laws and green household practices. Further, this study explored potential relationships between environmental law awareness and their green household practices. Descriptive research, as outlined by McCombes (2020), is dedicated to the precise portrayal of a population's characteristics. Additionally, the correlational aspect of the design is particularly relevant because it facilitates the measurement and investigation of relationships between variables without manipulating or controlling them.

Respondents

The participants in this research are pre-service teachers who were enrolled at Batangas State University-JPLPC Malvar during the academic year 2020-2021. Ensuring the validity and reliability of the results, the researchers aimed to obtain a representative sample through an appropriate sampling technique.

Among the total population of 507 pre-service teachers at Batangas State University JPLPC-Malvar, the researchers employed a calculated approach to determine the sample size. Utilizing Raosoft's online tool, the study aimed for a sample with a 5% margin of error and a 95% confidence level, leading to a final sample size of 219 respondents.

To ensure a proportional representation of the sample, the study employed the simple random sampling method. This involved grouping the pre-service teachers according to their respective year levels, and then randomly selecting the specified number of students to participate based on their availability. Importantly, the selection criteria for respondents were established to enhance the relevance and validity of our study. We prioritized pre-service teachers who were actively enrolled during the 2020-2021 academic year at Batangas State University-JPLPC Malvar, as they were most likely to provide accurate insights into the relationship between environmental awareness, knowledge of environmental laws, and green household practices. This methodological approach helps ensure that our findings are both meaningful and representative of the target population.

Instrumentation

The researchers utilized a modified questionnaire made by Lualhati (2019) which served as the study's main instrument. There are items that were slightly modified to better suit the target respondents. The questionnaire was validated with the help of respective individuals. After setting up the validity and the reliability of the questionnaire, the final version was administered to the target respondents. To facilitate the interpretation of the computed mean, the following mean ranges with their corresponding verbal interpretations (VI) were used: 3.51 – 4.00 – Highly Aware (HA) / Highly Practiced (HP); 2.51 – 3.50 – Aware (A)/ Practiced (P); 1.51 – 2.50 – Slightly Aware (SA)/ Slightly Practiced (SP); 1.00 – 1.50 – Not Aware (NA) / Not Practiced (NP).

Data Collection Procedure

To facilitate data collection for this research, a formal request for permission to administer the questionnaire to the pre-service teacher respondents was submitted to the office of the Dean of the College of Teacher Education. In addition to this, a consent form was presented to each respondent to ensure they had a clear understanding of the research's objectives and willingly agreed to participate. The researchers received valuable support from the university, aiding in the successful distribution and retrieval of the research instrument from the target respondents.

Once the data was collected, it was subjected to statistical analysis. Mean and Standard Deviation were employed to gain insight into the central tendency and variability of the collected data. Furthermore, the Pearson correlation coefficient (Pearson r) was used to investigate whether a statistically significant relationship existed between the level of environmental law awareness and the green household practices among the respondents.

This comprehensive approach to data collection and analysis ensures the reliability and validity of the research findings, enabling us to draw meaningful conclusions regarding the connection between environmental law awareness and sustainable household practices among pre-service teachers.

Results

1. Awareness on Environmental Laws of Pre-service Teachers

Environmental laws play an important role in protecting not just the nature as the environment, but also the humans, animals, resources, and habitats. Table 1 presents the respondents' level of awareness on environmental laws in the Philippines.

Table 1 Awareness on Environmental Laws of Pre-service Teachers

Item Statements	$\bar{x}$	SD	VI
As a student I know that…			
1. Philippine Clean Water Act of 2004 applies to the water quality management in all water bodies.	3.44	0.59	A
2. Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990 restricts the importation, processing, sale, distribution, use, and disposal of chemical substances and mixture.	3.25	0.67	A
3. Environmental Protection Act of 1990 empowers local authorities to deal with noise constituting a statutory nuisance.	3.21	0.66	A
4. Philippine Mining Act of 1995 regulates the utilization of mineral resources in the country.	3.35	0.68	A
5. Philippine Code of Sanitation requires food establishments in cities and municipalities to create a collection and disposal system.	3.47	0.64	A
6. The Garbage Law of 1995 prohibits littering in public places.	3.42	0.68	A
7. Philippine Ecological Solid Waste Management act of 2000 encourages people to discipline themselves on proper waste disposal.	3.46	0.67	A
8. P.D. 705, known as the Forestry Reform Code of the Philippines, emphasizes the protection, development, and rehabilitation of forest lands.	3.42	0.65	A
9. Philippine Clean Air Act of 1999 promotes and protects the global environment to attain sustainable development.	3.46	0.60	A
10. Local Government Code of 1991 provides responsibilities to the local government of their waste management programs.	3.31	0.67	A
Overall	**3.38**	**0.65**	A

The data in the table reflects the agreement among pre-service teachers, with an overarching mean score of 3.38. This suggests that the respondents possess a commendable level of awareness of the Philippine Code of Sanitation. They recognize the existence of environmental policies designed to ensure proper sanitation, particularly concerning the collection and disposal of waste in food establishments. This heightened awareness is pivotal, as it fosters a cleaner and more sustainable environment.

Despite scoring the lowest mean of 3.21, the respondents also express agreement with the Environmental Protection Act of 1990, which grants local authorities the power to address noise issues that constitute a statutory nuisance. This indicates that the respondents are cognizant of the policies in place to mitigate noise pollution, which can be disruptive and detrimental to human well-being.

Overall, the respondents' agreement with all the item statements underscores their awareness of the environmental laws and policies enforced in the Philippines. As Butcher

(2015) has emphasized, such environmental consciousness forms the bedrock of literacy and understanding. This heightened awareness among pre-service teachers holds promise for future generations, as they will play a pivotal role in imparting knowledge about environmental laws and policies to their students, thereby fostering a culture of environmental responsibility (Tekin, 2010).

As per Das et al. (2010), environmental awareness encompasses a broad spectrum of knowledge, including a deep understanding of the environment, values, and the necessary skills to address environmental challenges. Being environmentally aware serves as the initial step toward nurturing responsible citizenship behavior over the long term.

In the Philippines, several key educational institutions, such as the Department of Education (DepEd), Commission on Higher Education (CHED), Technical Education and Skills Development Authority (TESDA), in collaboration with the Department of Environment and Natural Resources (DENR), the Department of Science and Technology (DOST), and other relevant agencies, are actively engaged in spearheading educational and awareness programs. This concerted effort aims to educate a vast majority of institutions on environmental protection and conservation, as mandated by Rabiatul et al. (2018). The primary objective of this program is to equip students with knowledge and awareness, ultimately producing a more environmentally conscious populace. It is important to acknowledge that people's awareness is a potent tool in the realm of environmental conservation, as highlighted by Gonzales et al. (2015). The acquisition of information over the years of education can indeed be a catalyst for behavioral change.

2. Green Household Practices of Pre-service Teachers

Green household practices are the act of preserving the environment through various household activities. Tables 2 and 3 show the green household practices of pre-service teachers in terms of waste management and resource management.

Table 2 Green Household Practices of Pre-service Teachers in terms of Waste Management

Item Statements	$\bar{x}$	SD	VI
As a student I …			
1. segregate garbage.	3.42	0.63	P
2. use reusable utensils when there are occasions.	3.40	0.74	P
3. pay bills online.	2.66	0.96	P
4. dispose hazardous wastes properly.	3.58	0.62	HP
5. make sure that wastewater will not flow to fresh water source.	3.66	0.53	HP
6. use jars or other glass containers to store foods.	3.61	0.64	HP
7. use cloth napkins in the kitchen.	3.35	0.80	P
8. repair items first before buying a new one.	3.67	0.52	HP
9. use own bags or reusable bags when shopping.	3.72	0.52	HP
10. repurpose household trash.	3.30	0.66	P
Overall	**3.44**	**0.66**	**P**

Within the realm of waste management, the data highlights a positive trend. Half of the item statements demonstrate a consistent practice, with the highest mean of 3.72, indicating that respondents actively employ sustainable waste management strategies. One notable practice is the frequent use of personal and/or reusable bags when shopping, reflecting a strong

commitment to reducing waste. Bogner et al. (2020) underscore the critical importance of effective waste management in achieving sustainability. Its core objective is to curtail the volume of non-reusable materials and mitigate potential health and environmental risks. The respondents' commitment to these practices aligns with this sustainability agenda.

Despite the slightly lower mean score of 3.30, the respondents still engage in sustainable waste management by repurposing household waste, especially items like paper, glass, and metal, which are commonly recycled or handed over to recycling centers (Barloa et al., 2016). As future educators, the respondents bear the potential to be influential figures in promoting waste management. Labog (2017) highlights the significance of integrating waste management into the classroom environment, as consistent reminders can shape students' waste management habits, extending to their households. Notably, the respondents exhibit a broad spectrum of waste management practices, with an overall mean of 3.44. Thus, it is vital for them to sustain and further enhance these practices to continue contributing to a greener future.

Further, the data underscores that every individual can play a role in shaping a more environmentally friendly future by minimizing waste generation and actively participating in recycling or reusing efforts (Lualhati, 2019).

Table 3 Green Household Practices of Pre-service Teachers in terms of Resource Management

Item Statements	$\bar{x}$	SD	VI
As a student I …			
Turn off the lights if not in use.	3.85	0.45	HP
Use rainwater for cleaning and for watering plants.	3.34	0.82	P
Keep electric fan or air conditioner on during day and off at night.	2.99	0.87	P
Fix faucets if there are leaks.	3.54	0.70	HP
Use scratched papers instead of new ones.	3.63	0.58	HP
Unplug appliances when not in use.	3.76	0.54	HP
Use glass instead of running water while brushing my teeth.	3.58	0.73	HP
Check if the faucet is completely off before I leave the bathroom.	3.84	0.43	HP
Use automatic washing machine for full loads only.	3.15	0.92	P
Turn off the breaker when in vacation.	3.66	0.66	HP
Overall	**3.44**	**0.66**	**HP**

The table provides insights into the respondents' green household practices, specifically in the domain of resource management. Impressively, more than half of the item statements indicate a consistent commitment to green household practices in resource management, with the highest mean of 3.85. This signifies that the respondents diligently adhere to practices like turning off lights when not in use, a fundamental and sustainable approach to resource management. Lualhati's (2019) study underlines the paramount importance of instilling environmental awareness and education in younger generations. This education is an essential step in nurturing responsible citizens who will assume the mantle of nature and resource conservation and preservation.

Even though they scored the lowest mean of 2.99, the respondents still play a role in sustainable resource management by adopting a specific practice: keeping electric fans and air conditioners on during the day and switching them off at night. Norshariani et al. (2018) stress the significance of recognizing and understanding local resources, a crucial element in their efficient administration, preservation, and conservation.

In general, the respondents consistently engage in resource management practices, culminating in an overall mean score of 3.53. Their dedication to these resource management behaviors demonstrates their proactive role in safeguarding and utilizing resources judiciously for a more sustainable future.

3. Relationship between the Respondents' Level of Awareness on Environmental Laws and Green Household Practices of Pre-service Teachers

Table 4 presents the relationship between the respondents' level of awareness on environmental laws and green household practices. The correlation of the variables was tested using the Pearson r formula.

Table 4 Relationship between the Respondents' Level of Awareness on Environmental Laws and Their Green Household Practices

Variables	Computed r	Verbal Interpretation	p value	Decision Ho	Interpretation
Awareness on Environmental Laws and Green Household Practices in terms of Waste Management	0.506	Moderate Positive Relationship	0.000	Reject	Significant
Awareness on Environmental Laws and Green Household Practices in terms of Resource Management	0.506	Moderate Positive Relationship	0.000	Reject	Significant

The findings bring to light a compelling connection between the awareness of environmental laws and the adoption of sustainable household practices among pre-service teachers, as demonstrated by the study conducted by Sebastian et al. in 2021. Whether it pertains to waste management or resource utilization, individuals who elevate their understanding of environmental laws tend to exhibit a greater tendency for responsible and eco-conscious behaviors within their homes, echoing the views of Suzana et al. in 2020. These results underscore the influential role of education and awareness in nurturing environmentally responsible behaviors and emphasize the potential for informed individuals to make substantial contributions to environmental conservation through everyday household actions.

The calculated correlation coefficient (r) of 0.506 uncovers a moderate, yet meaningful, positive association between respondents' environmental law awareness and their green household practices in waste management, as highlighted by Rabiatul et al. in 2018. This means that as individuals' awareness of environmental laws increases, their commitment to responsible waste management in their households tends to follow, aligning with the insights provided by Shyang-Chyuan (2018). Importantly, the p-value remains notably lower than the chosen significance level (alpha), denoting a strong statistical significance. This p-value gives a strong basis to confidently reject the null hypothesis (Ho), which initially posited no significant relationship between environmental law awareness and green household waste management practices.

Similarly, in a parallel manner to the findings in waste management, the computed correlation coefficient (r) of 0.506 reveals a moderate positive relationship between respondents' environmental law awareness and their green household practices related to resource

management. Once again, the p-value remains below the chosen significance level (alpha), underlining substantial statistical significance. In congruence with the case of waste management, this study rejects the null hypothesis (Ho) for resource management, reinforcing the assertion of a substantial relationship between environmental law awareness and green household resource management practices. These results substantiate the essential role that awareness of environmental laws plays in steering individuals towards more eco-conscious actions within their households.

4. Proposed Webinar on Sustainability

The proposed webinar on sustainability, reflected on Table 5, is a carefully designed initiative with the primary objective of fostering a culture of environmental responsibility among pre-service teachers. Through a series of well-structured activities, this webinar aims to equip participants with a deep understanding of sustainability principles and practical strategies for implementing green household practices.

Table 5 Proposed Webinar on Sustainability

Activity	Duration	Description
Webinar Launch and Introduction	15 minutes	Welcome and introduction of speakers and participants. Overview of the webinar's objectives and agenda.
Session 1: Understanding Sustainability	30 minutes	Presentation on the concept of sustainability, its importance, and its relevance in daily life. Discuss the environmental challenges and individuals' roles in addressing them.
Session 2: Sustainable Household Practices	45 minutes	In-depth exploration of sustainable practices within households, including waste reduction, energy conservation, water efficiency, and resource management. Real-life examples and success stories.
Session 3: Practical Strategies	30 minutes	Interactive session for participants to share their current practices and sustainability challenges. Facilitated discussion on practical strategies and solutions.
Session 4: Policy and Advocacy	15 minutes	Discussion on the role of policy and advocacy in promoting sustainable practices. Emphasize pre-service teachers becoming advocates for sustainability.
Session 5: Q&A and Panel Discussion	20 minutes	Open the floor for questions from participants. Panel discussion with sustainability experts and experienced educators.
Session 6: Action Planning	20 minutes	Breakout groups for pre-service teachers to create individualized action plans. Share and discuss action plans within the groups.
Session 7: Closing Remarks and Pledge	15 minutes	Summarize key takeaways from the webinar. Invite participants, especially pre-service teachers, to make a sustainability pledge.
Follow-up Resources	Ongoing	Provide access to a resource hub with articles, videos, and tools related to sustainable living. Establish an online community for ongoing support and sharing of experiences.
Post-Webina Evaluation	1 week after	Send out a post-webinar survey to gather feedback and assess the impact of the webinar. Use feedback to refine future sustainability initiatives and webinars.

The outlined webinar agenda presents a well-structured and comprehensive approach to addressing sustainability, particularly in the context of household practices and education for pre-service teachers. It offers a balanced mix of informative sessions on sustainability fundamentals, practical strategies, and policy advocacy, ensuring participants have a holistic understanding of the subject. The interactive elements, including the Q&A, panel discussion, and action planning, encourage active engagement and knowledge application. Moreover, the post-webinar evaluation and ongoing resources demonstrate a commitment to continuous improvement and long-term support, enhancing the webinar's potential to inspire lasting change and environmental stewardship. This well-designed event has the capacity to leave a meaningful impact on participants' attitudes and behaviors towards sustainability.

Discussions

Majority of pre-service teachers exhibit a commendable awareness of the environmental laws implemented in the Philippines. Notably, both waste management and resource management practices are embraced by these individuals. However, it's noteworthy that resource management is more highly practiced compared to waste management, which can be characterized as moderately practiced.

Importantly, a significant correlation emerges between pre-service teachers' awareness of environmental laws and their green household practices. This connection underscores the importance of educating individuals about environmental policies and fostering their personal commitment to sustainable living.

In light of these findings, the researchers propose a webinar aimed at enhancing green household practices among pre-service teachers. The focus of this webinar will be on disseminating knowledge about environmental laws and policies, empowering individuals to make informed and sustainable choices in their daily lives. Additionally, the researchers recommend follow-up workshops to further refine and improve the green household practices of the respondents, offering a platform for practical, hands-on learning and skill development in the realm of sustainability. This multi-pronged approach ensures a comprehensive strategy for promoting eco-conscious behavior among pre-service teachers, fostering a positive impact on their households and communities.

Conclusion and suggestions

In light of the study's findings and conclusions, several recommendations emerge.The institution may consider establishing an online page through a Facebook page or a website. This platform could serve as a hub for sharing regular updates, trivia, and valuable information related to environmental laws and policies. Such efforts could effectively motivate and remind students to actively engage in practices promoting environmental sustainability. Furthermore, the institution may organize an educational event comprising a series of activities focused on enhancing participants' knowledge of environmental laws and their role in sustainable living. This event could encompass webinars and workshops, providing a hands-on and immersive learning experience.

To foster a practical connection to environmental sustainability, the school organization may propose an environmental science fair. This fair could encourage students to create

projects utilizing recyclable materials, offering innovative solutions for environmental preservation. In addition, incorporating environmental protection into orientation programs, with an emphasis on resource and energy management, can serve as an essential step in integrating sustainability into the institutional culture.

Regular assessments in the form of yearly practical examinations can be implemented to gauge students' awareness of environmental laws and green household practices. These assessments help identify areas that may require further development and refinement.

For future research endeavors, researchers might consider conducting similar studies aimed at measuring and determining the level of environmental laws awareness and green household practices among teachers, or a combined study involving both students and teachers. This comparative approach could yield valuable insights into the differences and commonalities between these two groups in terms of their knowledge and implementation of environmental laws and green household practices.

New knowledge and the effects on society and communities

The study highlights the level of environmental awareness among pre-service teachers, offering the potential to create a more informed and environmentally conscious society. The significant relationship identified between environmental law awareness and green household practices emphasizes the role of education in driving sustainable behaviors, impacting households and communities. The study's recommendation for educational seminars or webinars focusing on green household practices provides a practical means to translate knowledge into action, benefiting both pre-service teachers and interested community members.

Moreover, the findings may have policy implications, influencing the development and enforcement of eco-friendly policies at various levels, ultimately contributing to a more environmentally responsible society. Finally, this study opens doors for further research in the field of environmental education and sustainability, offering opportunities to explore different approaches, interventions, and demographic groups for a broader societal impact.

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03

The Face and Politeness on Philippine Press Briefings:
A Content Analysis

Love Faith B. Dalisay
Department of Education, President Roxas District, President Roxas, Cotabato, Philippines
Jerson S. Catoto[*]
Cotabato Foundation College of Science and Technology, Doroluman, Arakan, Cotabato, Philippines
E-mail: faithhopedalisay@gmail.com and jcatoto13@gmail.com[*]
*Corresponding author

Abstract

Face of the speaker and hearer matters in a communication. This qualitative study employing the content analysis was conducted to understand the different types of face threatening acts and politeness strategies in Philippine Press Briefings. There were 12 corpora used in this study. Results revealed that Face Threatening Acts have impacts on the hearer and speaker's face. This study found two types of faces to the hearer's face. First is the negative face and followed by the positive face. Each has its own elements which provided wider perspectives on the influence of language in the contexts of discourse. From the corpora, there is only one face which is the negative face. In particular, this presented about the expression of thanks. Moreover, the politeness strategies identified were bald on, positive, negative, and off-record. Face Threatening Acts transpired in the Press Briefings of the Philippine Malacañang Palace. Each face was threatened or affected by the exchange of discourses. In can be noted that speaker and hearer's echelon matters in the presentation of faces. One has the control and the other has to follow. This manifested that imposition changed someone's face. Furthermore, different elements were indicated in each of the politeness strategies. The utilization of politeness markers makes a difference in preserving and affecting the face of the speaker and the interlocutor. Notwithstanding, this concludes that press briefings are rich sources of information that may deepen the explanation of Face Threatening Acts as well as the politeness strategies.

Keywords: Press briefing, Face threatening acts, Politeness strategies, Negative face, Positive face

Introduction

Everything that a person utters has effects on the interlocutors. Thus, it is a must to consider the feelings so that these could not cause negative face to the hearer or to the speaker. Positive face corroborates on how the speaker want to be admired, looked, and respected. Meanwhile, negative face occurs when one needs free from imposition and autonomy. Similarly, face threatening acts can be found in different media such as the press briefings which is usually provided by the government to provide the necessary and relevant information to the members of the press.

As defined by Brown and Levinson (1987) defined face threatening acts (FTAs) whose face is being threatened and which type of face is being threatened which composed the positive or negative face. Acts that threaten an addressee's positive face included acts such as complaints, criticisms, accusations, and interruptions. Meanwhile, an act that threatens addressee's negative face may be an offer and promise. Despite the difference of power between interlocutors, it was suggested that speakers with higher status may use politeness strategies in their speech compare with those in the lower class.

Hence, the concept of power is believed to closely correlate with negative politeness of not wanting to impose to others and allow them to have the freedom to act. For Liu (2005) defines power as a status on a hierarchy from powerful to powerless. Rank of imposition is necessary in choosing politeness strategies used especially in performing request. It can be said that the greater the request is, the more respectful one must be because it may be inconvenient for the hearer or bringing them into trouble (Santosa & Iskandar, 2022).

Moreover, Face Threatening Acts during the online classes indicated the power of the teacher which had the impact on the negative face of the hearer (Santosa & Iskandar, 2022). Also, students utilized impolite strategies such as bald on record, positive, negative, and sarcasm (Permana et al., 2021). This theoretical framework has been found useful in explaining debates during the presidential candidate debate in the United States of America as revealed by the study of Adi (2021). The findings of Tsoumou (2021) indicated that people tried to employ varied strategies in intensifying impoliteness as they responded to Facebook posts.

The present study looked into the different aspects of Face Threatening Acts as well as the politeness strategies found on press briefings. Usually, people responded to these by posting on their social media accounts questioning the government programs. Without knowing, the statements of the spokesperson already made an effect on the face of the interlocutors. This tried to build a gap in the local context. Most of the studies on politeness theory are foreign (Ambuyo et al., 2011; Darong et al., 2022; Dewi, 2022; Gusthini et al., 2022). Hence, this study paved the way for presentation of this handiwork in the local parlance.

Similarly, this study gave a total understanding about the applicability of politeness theory in the discourse. It can add to the bodies of knowledge and could provide better opportunities for pedagogy. In the same manner, this will guide speakers as they respond to questions. Hence, this can be crucial to classroom interactions especially on teachers' dealing with students during the teaching-learning process. More importantly, this will guide people to as they respond to questions raised. The aforementioned rationale served the source of motivation for pursuing this study.

Statement of the Problem

This qualitative study employing content analysis aimed at determining the Face Threatening Acts by Brown and Levinson (1978) found in press briefings of the Malacañang Palace. Specifically, it intended to answer the following questions:

1. What face threatening acts are found in press briefings; and
2. What politeness strategies are found in press briefings?

Objectives of the Study

This qualitative study employing the content analysis was conducted to understand the different types of face threatening acts and their corresponding meaning. Also, this determined the different politeness strategies that are found on press briefings. These are those delivered by the Presidential Spokesperson Harry Roque on the Peoples Television (PTV 4). Topics were on the aspects of the fight of the Philippines on the COVID-19 pandemic.

Scope and Limitation of the Study

This study focused at determining the different faces on face threatening acts by Brown and Levinson (1978, 1987). In addition, this study uncovered the different politeness strategies embedded on the press briefings of the Malacañang Palace. The press briefings are the media conference which address questions from the members of the Philippine media. There were 12 corpora used taken from the official YouTube Channel of the Peoples Television (PTV4). All of which covered during the times of the COVID-19 pandemic in the Philippines.

Methodology

This study employed the qualitative-content analysis as the method of gathering and analyzing the data. Qualitative research has been defined as a methodology that deals with human experiences where it explores using phenomenology, case study, narratology, as well as grounded theory (Crabtree & Milelr, 2022; Flick, 2022; Jackson & Mazzei, 2022). Conversely, there are other processes where texts and other aspects of language studies need the in-depth meanings of texts that may have impacts in the society (Hersh et al., 2022; Stickler & Hampel, 2023).

Indeed, content analysis is a qualitative methodology wherein the main tool for collection of the data would be books, newspapers, magazines, speeches, and interviews and the like (Vears & Gillam, 2022). By using the qualitative approach, content analysis focuses on understanding and analyzing the underlying meanings from the corpora (Vaismoradi et al., 2013). The purpose of using this content analysis is to determine the underlying effects of the communication content (Goksu et al., 2022).

In this regard, this paper was qualitative since there are no statistical analysis to be involved. Likewise, it employed the content analysis since the press briefings were used as the source of identifying the two faces of acts. Another, this merely interprets the data based on the contexts of the lens which serves as the guidance to the researcher in giving meaning to the texts.

Sources of Data

The main source of the data was the PTV 4 videos on the YouTube. These were the press briefings made by the Malacañang Palace especially by the Presidential Spokesperson during the height of COVID-19 in the Philippines. As well, these served as the corpora of the

study. These the best sources of explaining the occurrence of Face Threatening Acts wherein the mode of questioning and responses indicated the occurrence of this linguistic phenomenon.

Sampling Technique

The researcher employed the purposive sampling. Specifically, the corpora were taken from the official YouTube Channel of the PTV 4. These covered the periods of 2020-2021 where cases of COVID-19 in the Philippines were at its highest level. There were 10 recorded press briefings used in identifying the different aspects of Face Threatening Acts by Brown and Levinson (1978, 1987) as the main framework for the analysis. These were taken during the time of the COVID-19 pandemic since it explained the timeliness of the data and most there was the urgency for the government to provide information to the people every now and then.

Procedure of the Study

The following procedures were observed in this study. First, the researcher read about the underlying theories relative to the Face Threatening Acts. After which, the kind of corpora was considered. It was observed that the press briefings used by the Malacañang Palace especially by the Presidential Spokesperson were full of dynamism of the lens of politeness theory. Thus, the FTA by Brown and Levenson (1978) was used as the main process in the analysis of the texts.

Secondly, the researcher transcribed the recorded press briefings taken from the YouTube Channel of the Peoples Television (PTV4). Each was coded for the easy identification. This was followed by the determination of the elements of the Face Threatening Acts. Subsequently, member checks were observed. Colleagues in the school were asked to give their comments and suggestions.

Moreover, the analysis and the discussions were sent to peer debriefers. They were asked to review the correctness of the process of the analysis of the data. To provide the panel members with the corpora of the study, the audit trail was provided to cross checked the sources of the data with the texts in the discussion.

Ethical Considerations

This study used the secondary data as the corpora of the study. Hence, the following ethical considerations were observed. Since the data was available online, these were considered as public. Anybody who can watch and read them would not be liable ethically unless the data contained anonymity of individuals involved in the study.

Issues such as rape, murder, and the like which involved minors should conform to the ethical norm of research. From the press briefings, there were no issues related to the former. All of which were about the fight of the government against COVID-19 pandemic. Nevertheless, the source of the data as well as the date was clearly indicated.

Each of the corpora was coded for the easy identification. In the like manner, the researcher provided the members of the panel with the copies of the corpora for their reference. Through this, they confirmed that all of the data used were true and uphold the sense of veracity.

Data Analysis

The analysis of the data involved strict process of qualitative research. Each of the corpora was first grouped based on the dates. Then, the research questions were followed. The elements of Face Threatening Acts of Brown and Levinson (1978, 1987) were identified from the press briefings of the Malacañang Palace.

Results

This section underscores the results based on the analysis of the data. It provides an in-depth discussion of the findings with explain the different elements of Face Threatening Acts of Brown and Levenson (1978, 1987) on the press briefings delivered by the Malacañang Palace of the Republic of the Philippines during the COVID-19 pandemic.

Face Threatening Acts Found in Press Briefings

The first research question deals with the identification of the Face Threatening Acts found in the press briefings of the Malacañang Palace. There are two types of FTAs. These are FTAs on hearer's face and the listener's face.

Face Threatening Acts Threatening the Hearer's Face

This study found two types of faces to the hearer's face. First is the negative face and followed by the positive face. Each has its own elements which provided wider perspectives on the influence of language in the contexts of discourse.

Negative Face

The negative face values the face of the hearer or the interlocutor in the conversation. Under this face is order and compliment.

Order is one of the elements of a negative face in the Face Threatening Acts on the hearer's face. For example, from the extract below in which Sec Harry Roque Jr was giving a compliment to Dr Solante as a true expert of infectious disease. His words may have an impact on the accessibility of the vaccines of the Filipino people. As an interlocutor, that compliment may have an impact on his face especially on his performance as a medical doctor who has the first-hand knowledge about the disease.

> **Sec Harry Roque Jr**: At pangalawa po, kung pupuwede po, i-explain rin Ninyo kung anu-ano iyong pagkakaiba noong mga iba't ibang mga bakuna at sabihin na nating totoo, ano ang ibig sabihin ng 50% efficacy rate po ng maintindihan po ng 36abuti ng ating mga kababayan; bagama't ang Sinovac po ay 60% daw po ang affectivity rate. **Dr. Solante, a true expert on infectious diseases, the floor is yours, sir.** (PB1, P5)
>
> **Dr. Solante:** Thank you, Sir Harry Roque. Unang-una, I will have to explain, we have been working since March of last year, when DOST convened this group experts. During that time we are already having talks and meetings with some of these vaccine manufacturers, where they present all their platforms to us and in fact, that was one of the busiest times because when they were still doing their presentation, they are also presenting their phase 1, phase 2, and even the pre-clinical studies. (PB1, P5)

In the same manner, on PB4, P6 conversation, it shows that Sec Harry Roque Jr was asking for clarification to Dr Gap Legaspi relative to the condition of the Philippine General Hospital. Using the word please ignites the negative face of the interlocutor. Thus, as a response to the question the first statement indicates that he expresses thanks to the secretary.

> **Sec Harry Roque Jr.**: Dr. Gap Legaspi, **pakilinaw naman po, ano ba ho talaga ang nangyayari diyan sa PGH? (please clarify, what really is happening in PGH).** Talaga bang nauubusan na kayo ng kama dahil napakadami ng COVID-19 patients o mayroon pong ibang dahilan? **The floor is yours, Dr. Gap Legaspi**. (PB4, P6)
>
> **Dr. Legaspi**: Thank you very much, Sec. Gusto ko lang pong balikan ng kaunti ang mga pangyayari sa COVID. Tayo po ay nagsara noong March of last year at dahan-dahan pong binubuksan ang hospital bandang mga Hunyo at July because of the demands of the non-COVID patients. Actually, po may mga araw na 100 ang pasyente sa emergency room, tatlo lang ang COVID doon, karamihan po non-COVID na. So, napilitan po kaming buksan ang maraming beds ng PGH sa non-COVID. (PB4, P6).

Similarly, the secretary is polite when asking the governor of Negros Occidental about the cases of COVID-19 and the readiness toward vaccination. Hence, this affects the negative face of the governor.

> **Sec. Harry Roque Jr**.: "Gov. kamusta ang mga kaso ng Covid-19 sa inyong probinsya at handa na ba tayo para sa bakuna at kung handa na tayo, anong bakuna ang pinaghahandaan natin? **Governor, the floor is yours**. (PB3, P2)
>
> **Governor Degamo**: Good morning, Sec. Roque. Nagpapasalamat (we are very grateful) po kami na nagpunta ka dito sa Negros Oriental to talk about the importance of the vaccine na ano bang bibilhin natin na vaccine na ituturok natin sa taong-bayan ng Negros Oriental. You know, as Governor of Negros Oriental, I am pretty confident na 'yong bakuna talagang nakuha ng national government through DOH ay talagang yon ang aasahan naming na ituturok dito. (PB3, P2)

The result implies that as one of the elements of the negative face, ordering with the sense of politeness can have a good impact to the interlocutor. Here, faces of interlocutors were constrained where the authority of the secretary has been imposed to them. Nevertheless, when their faces were affected, they responded in a manner that they sounded tact polite. Through this, the result applies that behaviors may be affected through the negative face of a person. However, these orders are coupled with high sense of respect to the participator of the conversation.

The second identified type of the negative face to the hearer's face is compliment. The extract reveals that the Dr Solante was expressing compliment to the mode of questions raised by Sec Harry Roque about the variations on the efficacy rate of Sinovac from three identified countries.

> **Sec. Harry Roque Jr.:** Ang question ko naman po tungkol dito sa Sinovac 'no. Bakit po sa clinical trials – kasi wala pong clinical trials sa Tsina, dahil wala na sila masyadong kaso ng COVID doon ano – eh iba-iba iyong efficacy rate na lumabas? Sa Turkey 91.25, sa Indonesia 91.25 at sa Brazil ay 50.4…(My question is about Sinovac. Why there are no clinical trials in China? Does that mean that they have least cases of COVID and that there is

a difference in the efficacy rate like 91.25 in Turkey, 91.25 in Indonesia, and 50.4 in Brazil?)

Dr. Solante: Okay, that is a good question. Iyong efficacy rate is not always consistent with any population, depende iyan (that depends). Number one, the efficacy rate will always be, one, how the vaccine will elicit an antibody response. Number two, how the reproduction number of a particular country; and then number three, is the host immune response. How the host can elicit and produce this antibody.

Under PB5, P6 the undersecretary was congratulated by Sec Roque about the type of system to be implemented in the Philippines especially by the Local Government Units and different hospitals to combat the spread of the deadly virus.

Usec Vega: So siguro po mga middle of May, we will transfer and we will be able to provide you a better service and a better functionality. Kasi we hope na this will not just be for COVID but even in post-COVID, we will have a national referral system all over the Philippines, connecting the different hospitals, LGU for access and even for financial services that are needed by the patient. (PB5, P6)

Sec. Harry Roque, Jr.: Well congratulations Usec. dahil sa totoo lang po, sinusundan po talaga namin iyong capability na ma-contact ang One Hospital Command Center at kanina po pinarinig naman namin na sumasagot po ang 1555. Hindi gaya ng siguro mga one month or two months ago na busy ang lahat. So **congratulations Usec. Vega**. At again ang reminder po natin sa ating mga kababayan, kung nais ninyo pong malaman kung saan kayo pupunta, tumawag lang po kayo sa mga numero ng One Hospital Command Center dahil kung hindi po, talagang mangyayari sa inyo na baka ang mapuntahan ninyo ay puno na po iyong COVID bed allocation nila. So tawag lang po sa One Hospital Command Center. (PB5, P6-7)

It can be inferred from the findings that the face of the interlocutor was affected due to the given appreciation. This complimentary statement infused a good standing of how the hearer's negative face has been raised because of the good actions they did in response to the problem. As such, it validates that the speaker intention can actually change the face of the interlocutor or vice versa.

This type of face-threatening act happens when the speaker is succumbing to the power of the hearer (Cahyaningrum et al., 2022). Common face threatening acts to the hearer's negative face are suggestions, promises, requests, threats, challenges, dares, reminders, compliments, offers, and suggestions (Aporbo, 2022). An act that affirms or denies a future act of the hearer creates pressure on the hearer to either perform or not perform the act (Hutabarat, 2019).

Positive Face

The positive face of the interlocutor or the hearer can be affected based on the contexts of the discourse. It may be in the form of criticism as well as the expression of the emotion.

Criticism underscores the beauty of the language in itself. It provided an idea that humans use this as a weapon to intensify the destruction of the hearer. In this case, the response of Sec Harry Roque has a detrimental effect on the face of the one who asked the question.

Usec. Ignacio: Third question po niya: How does the Palace respond to concerns that the military has been too focused on red tagging to guard Philippine waters versus threats posed by China? (PB2, P12)

Sec Harry Roque Jr.: Wala pong katuturan iyan, iyan na po iyong propaganda na sinasabi ni Vice President Leni at hindi iyong WHO figures. (That is nonsense. That is a propaganda by Vice President Leni and not the WHO figures). (PB2, P12)

In addition, another response of Sec Harry Roque affects the positive face of Pia Tirada related to the contexts of her question. She has been criticized when she has been corrected about the cases of human rights violations under the Duterte Administration. However, it entails to destroy the face of the hearer as indicated from the responses of the secretary.

Pia Tirada: Does it also prove that there's truth to the accusations and complains of the victims and some human rights critics in the country and what does the government plan to do about these violations. Is war on drugs or the way on pursuing our law enforcement, you know, the way it should go? (PB3, P6)

Sec. Harry Roque Jr.: Well, I will talk as a former professor of law. **Let me correct you, it does not prove editing.** Because what is accepted as proof of the commission of applied, is generally the decision of a court. What it does prove is that we are in the discharge of our state to investigate and prosecute violation to the right of life. (PB3, P6)

Correspondingly, another member of the Malacañang Press Club was criticized when he stated that the country was last in receiving the vaccine. He was corrected by the secretary and that disproved his accusations against the government's effort to have the vaccines ready for the people.

Roy Agustillo: Thank you Sir. You have mentioned that the vaccine is arriving. Yesterday, Malaysia just received their vaccine, the other day or two, Brunei. Unfortunately, we are the last country to receive vaccine. What are the factors Sir ….(PB3, P11)

Sec. Harry Roque Jr: I **don't think we are the last. I don't think we're the last. There are only ten countries that have used the vaccine, noh. So, does that's disproved the fact that we are the last.** The rest of the world still have to receive their vaccine, pero I have to admit kung tayo po ay nag-insist on Western brands, mag-aantay pa rin tayo ng pagdating at hindi natin alam kung kailan darating. Kaya nga po natin sinasabi, basta aprobado ng ating FDA tanggapin po natin yan bilang ligtas at epektibo. Talagang nag-uunahan po ang buong daigdig para sa mga Western brands. (PB3, P11)

Furthermore, one of the questions raised affected the positive face of the secretary. This caused an intimidation. Thus, by looking into the choices of words, one can infer that he has raised his voice in response to the question raised. This is also true to extracts in PB8, P6 where Pia Ranada a Rappler reporter has been one of the staunched critics of the Duterte Administration. Her line of questioning infuriated the secretary that eventually affected the positive face.

Usec Ignacio: Ang follow up question po ni Leila Salaverria, Secretary: Why won't the government just cooperate in the probe to prove the ICC wrong if it believes it has done nothing wrong? (PB8, P4)

Sec Harry Roque Jr: **How dare you say that the Philippine legal system is not working.** Emotional issue po ito for all lawyers and for all Filipinos. Hindi po, hindi tayo ganiyan sa Republika ng Pilipinas. (PB8, P5)

Usec Ignacio: Okay. Secretary, from Pia Rañada pa rin: If Duterte administration is indeed sincere about bringing drug war abuses to justice, why are the only conviction of drug-related EJKs the cops in Kian delos Santos murder? (PB8, P5)

Sec Harry Roque Jr: Excuse me! Kailan ba nagsampa ng kaso si Trillanes **(When did Trillanes file the case?) 2018**. Anong taon ngayon **(What year was that?) 2021**. Anong stage natin? Formally mag-i-investigate ka pa lang! Kung mabagal ang proseso sa Pilipinas, mas mabagal po ang proseso sa ICC dahil wala pa ngang preliminary investigation, tatlong taon na ang lumipas. Eh bakit nagdi-demand tayo nang napakabilis na proseso dito sa Pilipinas? (PB8, P6)

Another question which changed the positive face of the interlocutor yields in PB9, P8. Here the secretary was criticizing the contexts of the question by citing a presidential decree which justifies the inconsistencies on the quoted comments of former Chief Justice of the Supreme Court.

Usec Ignacio: Yes. Secretary, from Jason Gutierrez ng New York Times for Secretary Roque and Justice Jardeleza: Comment on Justice Carpio saying he believe that Jardeleza's proposed bill was unnecessary because President Duterte could simply issue a presidential proclamation listing the geologic features complete with names and coordinates, and that this would be faster than passing legislation. (PB9, P8)

Sec Harry Roque Jr.: **That's so wrong**. Unang-una, the tribunal said na nga, iyong ating domestic law, PD 1596, is inconsistent with the UNCLOS. Now tama po, it does not automatically nullify the domestic law. But pursuant to pacta sunt servanda, we have a treaty obligation and an obligation under customary international law to amend our existing law to comply with the UN Convention on the Law of the Sea. (PB9, P8-9)

Truly, criticism changes affect the positive face of the hearer or the interlocutor as revealed from the aforesaid extracts. The expression of responses of the secretary to the questions evaluates against the deepest accusations against the government. Furthermore, it can be surmised that the positive face evaluated the negative face of the hearer because of the elements being raised from the questions.

The expression of emotion shows an impact to the positive face of the hearer. In this regard, PB10, P13 indicates that the secretary was expressing his sadness about the fate of Pasig River. Being listed as one of the plastic polluters of the world, the secretary showed his feelings that the Philippines should not be proud of the news.

Usec Ignacio: Yes, Secretary, thank you. Question from Kris Jose of Remate/Remate Online: Reaksiyon ng Malacañang dahil napabilang daw po ang Ilog Pasig at 18 iba pang ilog sa bansa sa listahan ng world's top plastic polluter? (PB10, P13

Sec Harry Roque Jr: Well, nakakalungkot po iyan (That is sad)**, that is not something na we should be proud of.** Dati nga po ay mayroon pa tayong komisyon just on Pasig River, pero wala ring nangyari. So sa akin po, talagang kinakailangan ipatupad ang ating existing laws, ipatupad iyong obligasyon ng mga water concession agreements na magkaroon talaga ng

wastewater treatment at ipatupad talaga iyong pagbabawal ng pag-discharge ng kahit anong nakakasira sa kalikasan diyan po sa Pasig River. (PB10, P13)

More so, this finding explains the role of emotion in changing the face of the hearer upon hearing a sad news. In particular, this connotes that the speaker is greatly affected by the mere fact that the body of water is the main source of pollution in the world. This can have a negative impact in the image of the country as it tries to combat against global warming and natural calamities.

The findings are in consonance that a hearer's positive face threatening acts are complaints, criticism, mention of taboo topic, and interruptions (Brown & Levinson, 1987). Threatening the positive face of the hearer can be marked with an action that expresses the speaker's indifference toward the addressee's positive face (Cahyaningrum et al., 2022). Above all, it aims to destroy the face of the hearer and vice versa (Aporbo, 2022).

Face Threatening Acts Threatening the Speaker's Face

The Face Threatening acts also threatens the face of the speaker. From the corpora, there is only one face which is the negative face. In particular, this presents about the expression of thanks.

Negative Face

The negative face on the speaker's face values the essence of respect from this point of view.

The speaker face has been affected by the credit being expressed by the interlocutor. Here, word of thanks has been expressed by Dr Solante when the floor for him to talk was offered by the secretary.

> **Sec Harry Roque Jr.**: At pangalawa po, kung pupuwede po, i-explain rin Ninyo kung anu-ano iyong pagkakaiba noong mga iba't ibang mga bakuna at sabihin na nating totoo, ano ang ibig sabihin ng 50% efficacy rate po ng maintindihan po ng mabuti ng ating mga kababayan; bagama't ang Sinovac po ay 60% daw po ang affectivity rate. Dr. Solante, a true expert on infectious diseases, the floor is yours, sir. (PB1, P5)
>
> **Dr. Solante: Thank you, Sir Harry Roque**. Unang-una, I will have to explain, we have been working since March of last year, when DOST convened this group experts. During that time we are already having talks and meetings with some of these vaccine manufacturers, where they present all their platforms to us and in fact, that was one of the busiest times because when they were still doing their presentation, they are also presenting their phase 1, phase 2, and even the pre-clinical studies. (PB1, P5)

In the same vein, the governor of Negros Occidental was grateful of the presence of the secretary to talk about the government's plan against the spread of COVID-19 pandemic in the province.

> **Sec. Harry Roque Jr**.: "Gov. kamusta ang mga kaso ng Covid-19 sa inyong probinsya at hand ana ba tayo para sa bakuna at kung hand ana tayo, anong bakuna ang pinaghahandaan natin? Governor, the floor is yours. (PB2, P2)
>
> **Governor Degamo**: **Good morning, Sec. Roque. Nagpapasalamat po kami na nagpunta ka dito sa Negros Oriental** (thank you for visting Negros Oriental) to talk about the importance of the vaccine na ano bang bibilhin natin na vaccine na ituturok natin sa taong-bayan ng Negros

Oriental. You know, as Governor of Negros Oriental, I am pretty confident na 'yong bakuna talagang nakuha ng national government through DOH ay talagang yon ang aasahan naming na ituturok dito. (PB3, P2)

Also, in PB3, P10, the secretary was happy upon hearing the agreement signed between the industries and the Sinovac to vaccinate their employees. This entails that the face of the secretary has been affected.

Melo Acuña: yeah. **Thank you**. Covid-19 related issue, I just talk to former Special Envoi to China, Dr, Francis Chua, and The Federation of the Filipino Chamber Commerce and Industries signed an agreement with the Sinovac early last night. Are there any groups signing up with the Sinovac for a vaccine supply to the Philippines? (PB3, P10)

Sec. Roque: **I'm happy to hear that**. I have not been officially informed of this, pero kung pupuwede po talagang magpirma ng tri-partite agreement for Sinovac, I am very happy because right now po ang ating allocation is 25M, if we can get more, that will be good. So far po 15 countries in the world have ordered and are using Sinovac. And, I believe if they have allotted 300M dosage of vaccine for export in addition to the more than 1 Billion that they need in China. So, kung masa marami pong supply ang makukuha natin ng Sinovac, that is the welcome development po. (PB3, P10)

This finding provides that the expression of things can be associated from the source of the discourse. Hence, the face of the hearer was affected. The negative face has been elevated through the mode of questions raised. Aside from that, this implies the role of the politeness markers such as -happy and -thank you which demonstrate a good impact on the hearer.

Indeed, face threatening acts to the speaker's negative face include expressions of gratitude, thanks, apology, offer, and making promises (Brown & Levinson, 1987). An act that shows that the speaker is in some sense wrong, and unable to control himself (Hutabarat, 2019).

Politeness Strategies Found in Press Briefings

The second research question determines the different politeness strategies found in the press briefings of the Malacañang palace at the height of the pandemic. Different issues were tackled that might have impact in the government's effort in running the country.

Bald-On Record

The first politeness strategy which was determined is the bald-on record. This is more in the aspect of imperative or request. Thus, in PB1, P8 shows that the secretary was requesting the reporter to come closer in order for him to clearly ask his question.

Roy Lomotan: Good after Secretary, and to our governor Degamo and Mayor Degamo. At this point, we will entertain 1 question from our lacal media. I would like to call on Mr. Boy Pelongo of Radyo Bandera. (PB1, P8)

Sec. Harry Roque Jr: Walang, walang volume Roy?... Seguro lumapit ka na lang. go ahead (no volume Roy? Come closer. Go ahead). (PB1, P8)

Bald-on record also happens in PB9, P3 when the secretary was asking his interlocutor to proceed with his message.

Former Justice Jardeliza: Hello? (PB9, P3)

Sec. Harry Roque Jr: Yes, go **ahead po. Go ahead**, Justice, as you were saying. (PB9, P3)

As well, this strategy is indicated from the request of the secretary to unmute his microphone in a teleconference in order for him to be heard.

Sec. Harry Roque Jr: Thank you, Professor Bagares. At si Dr. Melissa Loja naman, si Dr. Melissa Loja has a PhD in international law from the University of Hong Kong. Long time no see, Dr. Loja! Ano hong magiging hugis nitong teritoryo ng Pilipinas kung maipapasa po itong batas na inyong pino-propose. Dr. Loja, go ahead. (PB9, P5)

Dr. Loja, paki-unmute po ang Zoom ninyo. Paki-unmute. (Unmute your Zoom). (PB9, P5)

Dr. Loja: Yes. (PB9, P5)

Meanwhile, the interlocutor in PB10, P8 was requesting someone to play the slides of his presentation**.**

Sec. Harry Roque Jr: Okay. Mayroon po kayong power point presentation on COVID vaccine clinical trials updates. The floor is yours, Dr. Yu. (PB10, P8)

Dr. Yu: Sige po. Can I have the first slide po? (PB10, P8)

Sec. Harry Roque Jr: Okay na po, nandiyan po ang first slide. (PB10, P8)

This politeness strategy indicates the critical role of everyone in the conversation. It can be noted that making request or the imperative statement may have an impact to the hearer, however, it has a politeness value that can create an understanding between the speaker and the hearer.

Indeed, bald-on record does not save face. It can be used to threaten if it is used out of context (Waziana et al., 2021). The main reason of using is that speaker avoids to mitigate a Face Threatening Act to the hearer especially they are not in a close relationship (Santoso, 2015). Here, the speaker is more powerful than the hearer like the secretary acting as the interlocutor (Culpeper, 1996).

Positive Politeness Strategy

Positive politeness also appears in the corpora. It manifests that the questions raised were asking the secretary to explain clearly about the contexts of the question. As such, on PB1, P15, the response of the secretary can be understood when he used the word -because in his answer.

USEC. IGNACIO: Second question po niya: Did he give any assurance of safety and efficacy and did he address concerns raised about Sinovac in the Philippines? (PB1, P15)

Sec. Harry Roque Jr: No information po because umuwi po ako sa probinsiya noong dumating po si Minister. Wala po ako sa pagpupulong. (No information because I was in the province when the minister arrived). (PB1, P15)

PIA RAÑADA/RAPPLER: Sir, there have been a lot of killings of people who have been red-tagged under the Duterte Government and there have been no convictions so far, no justice. Sir, why doesn't the President create a task force on this since he's so quick to create task force for other things like typhoons, communism? I mean, isn't this a priority of the President given the growing numbers? (PB4, P16)

Sec. Harry Roque Jr: Because Secretary Meynard Guevarra already created that inter-agency committee. (PB4, P16)

PIA RAÑADA/RAPPLER: But, sir, how come there have been no convictions yet? There are no results yet of any investigation into people who died and were red-tagged before dying? (PB4, P16)

Sec. Harry Roque Jr: Because that's how the wheel of justice operate 'no. It's not instant justice, ala Kangaroo Court ng NPA, it takes time. But we are taking steps even with the support and the cooperation of the judicial branch of government to expedite the hearing of these cases. (PB4, P16)

As revealed from the extracts, it implies that the secretary was trying to respond to the questions raised by the reporter. Another, the conjunction -*because* deeply explains that reasons for the questions are being expressed by the secretary. Responses have full information that could suffice and satisfy the interlocutor.

More importantly, there was an agreement on the question being raised by the reporter. As PB5, P12 shows that Sec Dizon agreed with the statement. In the same extract and the exchange of questions, again the secretary agreed and thus, appreciated the reported on that regard.

JOSEPH MORONG/GMA7: Na ipu-procure 'di ba? And then, right now you have an existing 50 plus but dadagdagan iyan for NCR Plus ng 30. So if you add all these up, you're looking at at least 530,000 antigen tests. (PB5, P12)

SEC. DIZON: That's right. (PB5, P12)

JOSEPH MORONG/GMA7: But, sir, ang question ko, sir: In terms of allocation, because I think as we will agree, we need to urgently test iyong NCR Plus, so I'm interested in the allocation per city if you have. Kumbaga, sir, if these were… kung laser, saan ninyo itututok itong at least 30,000 so that we will be able to identify the cases and contain them so we prevent the spread? (PB5, P12)

SEC. DIZON: Great question, Joseph. First of all, we have to understand the nature of how to use the antigen test kits. So far antigen test kits, the experts have guided us by using these, number one, for symptomatic cases. So many of these antigen test kits will be deployed to hospitals 'no because hospitals need not only more tests, they also need fast turnaround tests so that they can act quickly if a person tests positive using this test. (PB5, P12)

Conformably, the undersecretary agreed on the statement of the reporter where figures should be provided especially on the cases of COVID-19 pandemic. The purpose is to inform the public and to warn them about the rising case of those who get infected by the virus.

MELO ACUÑA/ASIA DAILY PACIFIC: Maybe next time we can come up with figures so that we will have a clearer picture, Mr. Undersecretary. (PB6, P15)

DOH USEC. VEGA: Yes, we can do that. (PB6, P15)

The result harmonizes that positive politeness can make as a strategy can be delivered by agreeing into the meaning of the statement. In the same manner, this explains that the interlocutor should have the total understanding of the statement before they respond to the question. Digging deeper, this creates an understanding between the participants of the conversations.

This corroborates from the point of view of Clayman and Heritage (2002) that this mode of questioning and response is called as direct agreement. It asserts that this compromises the

neutrality of the interviewer/interlocutor. In addition, this type of politeness strategy was used when the interlocutor has a high level of economic or social status. On the contrary, this expresses solidarity between the speaker and the hearer who do not know each other (Dzikriyah, 2018).

Negative Politeness Strategy

The extracts show the negative politeness strategies found in the press briefings. It can be noted that speakers used honorifics in addressing their counterparts. For example, in PB1, P5 that Secretary Roque used the word *-doctor* Solante to give an explanation related to the clinical trials being made by vaccine manufacturers. Likewise, the *-sir* was used by Dr Solante in response to Sec Harry Roque.

> **Sec Harry Roque Jr**.: **Dr. Solante**, a true expert on infectious diseases, the floor is yours, **sir**. (PB1, P5)
> **Dr. Solante: Thank you**, **Sir** Harry Roque. (PB1, P5)…

Conversely, the use of hedges like *-I think* and *-you know* justify that indeed the response or statement falls under the negative politeness strategy

> **JOSEPH MORONG/GMA7:** Sir, you've seen obviously the portfolio of vaccine manufacturers that the government is talking to and you've seen their data. From the portfolio, sir, what vaccine would you recommend for the President? (PB1, P9)
> **Dr Solante**: So, **I think** most of the vaccines now are really safe. (PB1, P9)
> **JOSEPH MORONG/GMA7: Sir**, just one last question. How much longer can we afford to stay under GCQ? Mayroon ba tayo, sir, point of no return such that if we spend this number of months under still GCQ eh iyong damage to the economy will be irreparable?
> **SEC. CHUA:** Well, **you know**, we have been in GCQ or higher 'no in the Metro Manila area for already 12 months, so to the extent that we can continue with it, it's really going to put our economy in a very difficult position.

In the same manner, Sec Roque gave the floor to the leader of the province of Negros Occidental by calling him as *-governor*. And in response, a greeting as well as the position of Harry Roque as mentioned.

> **Sec. Roque** Jr.: …**Governor,** the floor is yours. (PB2, P2)
> **Governor Degamo**: **Good morning, Sec. Roque. Nagpapasalamat po kami na nagpunta ka dito sa Negros Oriental** (thank you for coming to Negros Oriental) …(PB2, P2)

This infers that the speaker shows respect to the hearer or the interlocutor of the conversation. Hence, the findings showed that honorifics were mentioned in deference to the person in authority. In the same vein, this connotes that there is a mutual respect with the utterance of greetings as well as the used of hedges in communication.

A sense of respect is represented in the negative politeness strategy. As stated by Kuzhevskaya (2019), the use of negative politeness is commonly used in formal situation rather than positive politeness for example in a business meeting intended the meeting look formal and professional. Generally, this involves some speech acts and one of this is thanking (Kristina, 2022). Opposing to this is the use of hedges as one of the features of negative politeness strategy (Zunaidah et al., 2022).

Off Record

The off-record statements are found in the extracts of PB2, P8 and PB2, P14. Here the secretary contradicts and opposes the questions raised by Pia Tirada and Joseph Morong. Their questions are beyond knowledge. That is why by looking into the responses of the secretary he was trying to counter justifying his knowledge as a lawyer and the information that he has.

> **Pia Tirada**: Does it also prove that there's truth to the accusations and complains of the victims and some human rights critics in the country and what does the government plan to do about these violations. Is war on drugs or the way on pursuing our law enforcement, you know, the way it should go? (PB2, P8)
>
> **Sec. Harry Roque J**r.: Well, I will talk as a former professor of law. let me correct you, it does not prove editing. Because what is accepted as proof of the commission of applied, is generally the decision of a court. What it does prove is that we are in the discharge of our state to investigate and prosecute violation to the right of life. (PB2, P8)
>
> **Joseph Morong**: Does that mean that no government agency will pay for any vaccine?(PB2, P14)
>
> **Sec. Harry Roque Jr**.: That's wrong because although it is funded loans, it is ultimately government funds that will pay for the vaccines. (PB2, P14)

From the aforesaid extracts it signifies that off-record strategy really happens in the press briefings. Questions raised were out of contexts where they are immediately contradicted. The fear of disposing these types of questions may ignite the minds of the people that the government is not doing anything in responding to the problems. In particular, discourses may play a crucial role in imparting politeness strategy so that responses may not sound annoying to the hearer.

Off-record statements affirm that agents who utilized this tactic were able to obtain more concessions from their human partners (Terada et al., 2021). This strategy is used when the speaker asks an indirect question that requires the listener to interpret. In other words, the speaker does not impose himself on the listener. As a result, there is no direct threat to the face. This strategy frequently necessitates the listener to interpret what the speaker is saying. The off-record indirect strategies relieve some pressure and Avoid FTA (Sukarno, 2018).

Discussions

This qualitative study employing the content analysis was conducted to understand the different types of face threatening acts and their corresponding meaning. Also, this determined the different politeness strategies that are found on press briefings. These were those delivered by the Presidential Spokesperson Harry Roque on the Peoples Television (PTV 4). Topics were on the aspects of the fight of the Philippines on the COVID-19 pandemic. There were 12 corpora used in this study. Results revealed that Face Threatening Acts have impacts on the hearer and speaker's face.

This study found two types of faces to the hearer's face. First is the negative face and followed by the positive face. Each has its own elements which provided wider perspectives on the influence of language in the contexts of discourse. From the corpora, there is only one face which is the negative face. In particular, this presented about the expression of thanks. Moreover, the politeness strategies identified were bald on, positive, negative, and off-record.

Conclusion and suggestions

Conclusion

Face Threatening Acts transpired in the Press Briefings of the Malacañang Palace. Each face was threatened or affected by the exchange of discourses. In can be noted that speaker and hearer's echelon matters in the presentation of faces. One has the control and the other has to follow. This manifested that imposition changed someone's face. Furthermore, different elements were indicated in each of the politeness strategies. The utilization of politeness markers makes a difference in preserving and affecting the face of the speaker and the interlocutor. Notwithstanding, this concludes that press briefings are rich sources of information that may deepen the explanation of Face Threatening Acts as well as the politeness strategies.

Suggestions

This study used the Press Briefings as the corpora of the study. Thus, it is recommended in this study that future researchers may use different materials that can provide the bigger picture of Face Threatening Acts and politeness strategies. In order to apply this in the parlance of pedagogy and to better understand the discourse that happens inside the classroom setting, it is deemed necessary to conduct similar studies that may show interactions between teachers and students. Also, the limitation of this study can be further enhanced by integrating the post-pandemic press briefings. Above all, teachers may also develop activities that exhibits the different aspects of FTAs and politeness strategies to make class more interactive. Finally, this study can be the basis by the politicians as they properly respond to questions brought by the member of the press.

New knowledge and the effects on society and communities

Face Threatening Acts by Brown and Levenson (1978, 1987) has a significant effect to the society. For example, in the contexts of teaching-learning process, the teacher will be guided properly on how to respond to questions asked by their respective students. They can contextualize their responses that it would not insult or hurt their learners. In turn, they will be able to motivate them to become active individuals in the classroom. Moreover, this study implies that the speaker has to always have to be particular of the details of their questions in order for them to have the response that they would want. Indeed, politeness happens in different facets of life. Sometimes, we are unaware of what we are saying, but eventually this already has an impact to the hearer. We can be impolite or polite depending on the person whom we are dealing with. Therefore, one has to be careful of every word that comes out one's mouth.

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Same Same or Different?: Comparing Perceived Internationalization, Experiences and Satisfaction of Domestic and International Tertiary Students in Thailand

Rowena Alcoba
National University Philippines, Philippines
Waranya La-ongsri and Waewwan La-ongsri
Chiang Mai Rajabhat University, Thailand
E-mail: rcalcoba@nu-lipa.edu.ph, waranya_lao@g.cmru.ac.th and
waewwan_lao@g.cmru.ac.th

Abstract

There appears to be a lack of literature analyzing and comparing experiences and behavior of foreign and domestic tertiary students in non-traditional destinations. Using quantitative approach, this study examined and compared how international and home students in Thailand perceive the extent of internationalization of their host institution, their sense of belongingness, discriminatory experiences and satisfaction. Findings showed that both groups of students did not perceive differently the academic, social and organizational dimensions of internationalization. However, foreign students felt a stronger sense of belongingness and higher level of satisfaction than their local counterparts. They had a more positive perception of the course contents and the university's physical environment. They indicated less positive perception of the availability of opportunities to socialize, to participate in exchange study, and to use the English language in learning and communication. The differing perceptions and attitudes of domestic and foreign students suggest that the institution may consider to further develop and improve the various aspects of internationalization in order to satisfy their needs and enhance their student experience.

Introduction

In the past ten years, the movement of students to get international education and credentials has been directed not only towards the Anglo-saxophone countries such as the United States, United Kingdom and Australia, but has slowly veered towards Asia. Statistical report states that "inbound students to Asia has increased almost three-fold from 323,487 in 1999 to 928,977 in 2015" (Kuroda et al., 2018, p3). This was a result of intra-regional mobility, with 72% or almost half a million students originating from countries also within the Asian region. Thailand, along with Malaysia and South Korea, is one of the emerging attractions for international students, showing inbound growth more than doubled from 2006 to 2015 (UNESCO Statistical Yearbook, 1988).

As Thailand aspires to become an educational hub, the offering of international programs has been encouraged, resulting to a considerable increase in the number of international programs taught at Thai higher educational institutions (HEIs) (Chang, 2008). However, Wachira (2022) posits that the main market for international programs in Thai universities remains to be Thai students. International education in Thailand has become popular among domestic students who want to improve their language skills and upgrade their profile for better job opportunities (Lertjanyakit, 2019). In 2002-2003, 85% to 98% domestic students accounted for the total number of enrollees in some foreign programs in Thai universities, particularly in the field of business administration (Pad, 2005 in Wachira, 2022).

A comparative study on the domestic and foreign students in Australia found that the learning experiences are largely similar. However, the overseas students were less satisfied with the facilities and resources such as cafeteria, shops, sports and religious facilities, social activities and clubs, among others. International students reported more discriminatory experiences than local counterparts, which had negative direct effect on sense of belongingness and indirect effect on average grades earned and cross-cultural interactions (Glass & Westmont, 2013). These findings had implications for administrators to identify the areas where there are significant differences and address specific areas of concern to ensure quality learning experience for the student body.

It is not too often that both international and home students are researched together and asked the same questions about their experiences of internationalization (Spencer-Aotey & Dauber, 2019), particularly in non-Anglophone settings. Studies on this topic can be useful in better understanding and managing the increasing diversity of student population (Grebennikov & Skaines, 2006). This study attempts to cover this gap in literature by examining how foreign and domestic students perceive the extent of internationalization of their host institution, as well as understand their sense of belongingness, discriminatory experiences and satisfaction. The study attempts to answer the following research questions:

1. Do international students perceive internationalization differently than domestic students in terms of:
    1.1 academic dimension?
    1.2 social dimension?
    1.3 organizational dimension?
2. Do international students feel a sense of belongingness differently than domestic students?
3. Do international students experience discrimination differently than domestic students?
4. Do international students feel satisfaction differently than domestic students?

The objectives of the study are six-fold. It compares the local and foreign students' perception in three dimensions: academic, social and organizational. It also compares the sense of belongingness, discriminatory experiences and satisfaction of the two groups of students, respectively.

Theory and Hypotheses

This research is anchored on Tinto's (1998) student integration theory and Oliver's (1996) expectancy-disconfirmation theory. A student's formal academic integration and informal academic engagements can have positive effect on his values, attitudes and perceptions (Tinto, 1998). Academic integration can be normative and structural (Chrysikos et al., 2017). Normative integration occurs when the student identifies with an academic system's attitudes and values structures, while structural integration refers to being embedded with the curriculum structures. Social integration is the student's connection and compatibility with the institution's social system. Integration takes place with interactions and engagements with teachers and academic staff, and involvement in extra-curricular and social activities and student associations (Tinto, 1998). The student forms positive or negative perceptions based on his experiences of integrating with the academic community. International and domestic students may accumulate different experiences during their course of study which could result to differing viewpoints.

Expectation theory posits that satisfaction or dissatisfaction may result from comparison of predetermined expectations with the actual experience (Oliver, 1996). Expectations explains satisfaction, which occurs if the perceived performance meets or exceeds expectations (Zhang et al., 2021). Foreign and home students, coming from various backgrounds and with different prior knowledge will have different expectations of their learning environment, which can shape how they perceive it (De Lange et al., 2018). Studies show that international students come to their host universities with high expectations of their learning environment, and a great need for social and organizational support from their teachers and academic staff (Glass & Westmont, 2013). Domestic students, on the other hand, enroll in international programs with the expectations of achieving an education that improves their English-language skills and prepares them for working in an international setting (Nguyen, 2022). Differing viewpoints and perspectives about internationalization may come from these two groups of students due to their expectations and experiences during the study period.

Differences in Perception of Internationalization

Previous studies have examined the different factors considered by students when thinking about an internationalized university. The Australian Education International (AEI, 2002 as cited in Zimitat, 2005) identified three dimensions of international education: academic, social and organizational dimensions.

Curriculum, teaching and learning comprises the academic dimension, which includes the use of foreign language for instruction and the courses containing substantial amount of intercultural and international contents (Knight, 1994). Internationalization of academic dimension also means faculty has opportunities to introduce international perspectives and approaches in teaching and learning, and interacts and integrates with students from diverse backgrounds within classrooms and courses (Spencer-Aotey & Dauber, 2019). Studies show that domestic students experience low levels of academic integration compared to international students. They also felt it was not important to be academically embedded into the university community which suggests different viewpoints and perceptions among the two groups of students (Spencer-Aotey & Dauber, 2019).

Social dimension reflects the students' non-academic life and the opportunity to socialize with other students (Spencer-Aotey & Dauber, 2019). Social interaction is an important dimension that may positively or negatively affect students' academic acquisition and their ability to integrate into the school context (Kondakci et al., 2008). Studies show that international students may perceive and experience that mixing with other students from diverse backgrounds has great benefits, while domestic students may have less engagement. International students also attributed great importance to social integration compared to domestic students (Spencer-Aotey and Dauber, 2019).

Organizational dimension refers to the institution's service capabilities to cater to international students, including the presence of personnel with cross-cultural competencies and the capacity to speak other languages. This dimension also includes facilities and resources, such as the availability of website in different languages, library with wide selection of international texts and signs that are written in different languages (Fit & Gologan, 2018). Nguyen (2022) posits that in the present modern era, people tend to set high expectations and standards. With much higher tuition fees charged to international students, they may have higher expectations than home students for modern, high-standard, and high-quality learning environment, facilities and support services (Nguyen, 2022).

In line with these propositions, the study suggests the following hypotheses:

H1: There is a significant difference between the perceived internationalization of domestic and international students in the academic dimension.

H2: There is a significant difference between the perceived internationalization of domestic and international students in the social dimension.

H3: There is a significant difference between the perceived internationalization of domestic and international students in the organizational dimension.

Differences in Sense of Belonging

Students' sense of belongingness refers to their connection and strong identification with the campus community. Studies show the correlation between persistence and academic success of college students with their sense of belongingness (Glass & Westmont, 2013). However, having a sense of belonging is considered especially important in the academic success of international students because they handle the same rigorous academic requirements as domestic students but without social support. Compared to domestic students, international students may experience struggle and distress as they negotiate their place within their college community and new cultural environment (Glass & Westmont, 2013). Hence, foreign students may exert extra effort to engage and integrate with their academic community. The research predicts the following hypotheses:

H4: There is a significant difference in the sense of belonging of domestic and international students.

Differences in Discriminatory Experience

The experience of discrimination is a risk that international students may encounter and can have negative effect on their sense of belonging and academic success (Glass & Westmont, 2013). Perceived discrimination reflects a great social distance between the host and sojourner because of racial discrimination (English & Zhang, 2020). The social dominance theory argues that the dominant ethnic group has ingrained beliefs of superiority in a multiethnic society (Devos & Mohamed, 2014). Hence, foreign students may be seen as a racial minority in the host countries, which increases their vulnerability to be treated unfairly in their host country

by the administration, teachers, or classmates (Yang et al., 2022). Consistent with these findings, the following hypothesis is proposed:

H5: There is a significant difference in the discrimination experience of domestic and international students.

Differences in Student Satisfaction

Student satisfaction is the student's emotional reaction or attitude resulting from his subjective and personal process of evaluation of experiences and perceptions about educational services received during the study period (Weerasinghe et al., 2017). The assessment of these educational experiences, services and facilities provided by the academic institution shapes student satisfaction (Sơn et al., 2018). Pleasurable emotions may result as the student finds his or her educational environment and experiences positive and desirable. However, frustrations and dissatisfaction may result if the opposite. Measuring satisfaction is important for academic institutions to become more responsive to the needs and expectations of students. Studies show that resources and capabilities such as teaching and learning, technology, library, student services and student orientation may contribute to student satisfaction (Mavondo et al., 2004).

While the presence of international students brings diversity in terms of cultures, values, skills, ideas and new ways of thinking, these differences present challenges at the same time. Studies show that foreign students come to their host university with a higher level of expectations and requirements for inclusivity in learning and teaching in host university (Ramburuth & Tani, 2009). Being away from their homes and adapting to a new culture, they are also most in need of social support. Domestic students, on the other hand, enroll in international programs with the expectations of achieving an education that improves their English-language skills and prepares them for working in an international setting. These expectations can affect their perception of internationalization of the academic institution, and consequently their satisfaction. The study predicts the following hypotheses:

H6: There is a significant difference in the satisfaction of domestic and international students.

Methodology

The research employed quantitative approach using cross-sectional survey study. T-test was used to compare the two cohorts of students in terms of their perception of the institution's internationalization, sense of belongingness, discriminatory experience, and satisfaction. Mean and standard deviation were used in presenting the demographic profile of respondents. The level of acceptable significance was set at $p < .05$. Cronbach's alpha assessed the scales' internal consistency and reliability.

The study examined the responses captured through self-reported survey. Despite the attributional biases, scholars still consider self-report data as a useful research method to capture the respondents' feelings, views and attitudes directly and expediently (Carlos & Rodrigues, 2015).

The survey questionnaire was administered online using Google survey platform, which could be accomplished within 15-20 minutes. To avoid language barriers, the questionnaires were prepared originally in English, and then translated to Chinese and Thai languages with the help of official translators. The survey was conducted directly in classes across all programs and year levels with the support of faculty of the International College. It was administered on voluntary basis where participants were instructed to answer on their own,

truthfully and from their own perspective. They were requested to sign a consent form to indicate their voluntary agreement to participate in the research project. The researcher gave them assurance that the survey would remain anonymous and confidential, allowing them to give honest and unambiguous answers.

Research Setting and Target Population

For the purpose of this study, the unit of analysis is the individuals, specifically the Thai and non-Thai students of the CMRU International College (CMRU-IC). Chiang Mai Rajabhat University (CMRU), an academic institution of higher learning located in the northern province of Thailand, officially established the International College in 2009 which has provided opportunities for international students to study in the university. CMRU is slowly positioning itself as a preferred alternative for international education in the country's northern region. Five programs are offered in the International College: Aviation Business Management (ABM), Business Chinese (BC), English for International Communication (EIC), International Business Management (IBM), and Thai for Business Communication (TBC).

The research population was the domestic and international student population of Chiang Mai Rajabhat University International College.   According to the CMRU-IC Annual Report (2021, p. 32), there was a total of 811 students enrolled in the IC, out of which 180 were foreign students and 631 were local.

The study used total population sampling method, a type of purposive sampling technique, which included all the population of foreign and home students. 748 duly-completed responses were collected, out of which 124 were from foreign students, and 624 from local students. Table 1 shows the number of respondents sorted by nationality and by program.

Table 1 International student respondents by nationality and by program

Nationality	ABM	BC	EIC	IBM	TBC	Total
American		2	1	1		4
Bhutanese	1		6	2		9
Chinese	2	6	12	7	29	56
Filipino			1	2		3
Indonesia			1			1
Japanese				1		1
Korean			2	1		3
Laotian					1	1
Malaysia			1			1
Myanmar	3	1	23	13		40
Nepalese			1			1
Russian				1		1
Scottish					1	1
Taiwanese				2		2

Measurement Scales

The study adopted measurement scales that have already been used in a number of previous research studies and have been tested for relevance, reliability and validity. The measurement of perception of internationalization covered three dimensions which reflected the different types of internationalization. Academic dimension (13 items), and organizational dimension (4 items) were measured using the scales validated by Zimitat (2005). Social dimension (6 items), sense of belongingness (4 items), and discriminatory experience (1 item) were adapted from Spencer-Oatey & Dauber (2019). The measurement of student satisfaction (3 items) used the scale validated by Liu & Liu (2004).   The scales had a total of 31 items answerable on a five-point Likert scale, corresponding to 1 strongly disagree, 2 disagree, 3 uncertain, 4 agree and 5 strongly agree.

To ensure validity, ease of use and understanding, the data collection instrument was pretested with 28 respondents. Some modifications and rewording were made to make the questionnaire more understandable and to avoid ambiguity. The pretesting resulted to acceptable Cronbach's alpha of .92 for all variables tested.

Results

Demographic Characteristics of Respondents

Table 2 shows the demographic characteristics of the two groups of respondents. Majority of domestic (63%) and international (52%) respondents were 20-22 years old. Among the international students, 6% belonged to the older age group of 29-43 years old pertaining to the students who were taking the Thai for Business Communication program as a second degree to enhance their Thai language skills.

For both groups of respondents, the majority were female with international female students 53%, and domestic female students 72%. The various nationalities of foreign students consisted of 45% Chinese nationals, 32% Myanmar, and the remaining 20% were American, Bhutanese, Filipino, Indonesian, Japanese, Korean, Lao, Malaysian, Nepalese, Russian, Scottish, and Taiwanese.

Among the international respondents, majority were enrolled in the English for International Communication (EIC) program (39%), followed by Thai for Business Communication (25%), and International Business Management (24%). 34% were in fourth year level of studies, 24% in first year, and the rest in the middle years. Among the domestic students, majority were enrolled in the Business Chinese program (39%), followed by EIC (34%). 39% were in second year level of studies, and 34% in third year.

Table 2 Demographic Characteristics

Item	International student respondents		Domestic student respondents	
	n=124	**Percentage**	*n=624*	**Percentage**
Age				
17 - 19	16	13%	202	32%
20 - 22	65	52%	390	63%
23 - 25	23	19%	30	5%
26 - 28	12	10%	2	0%
29 - 33	3	2%	0	0%
36 - 40	3	2%	0	0%
41 - 43	2	2%	0	0%
Gender				
Male	58	47%	173	28%
Female	66	53%	451	72%
Course				
Aviation Business Management	6	5%	110	18%
Business Chinese	9	7%	243	39%
English for International Communication	48	39%	215	34%
International Business Management	30	24%	56	9%
Thai for Business	31	25%	0	0%
Year Level				
First year	30	24%	110	18%
Second year	25	20%	243	39%
Third year	27	22%	215	34%
Fourth year	42	34%	56	9%

Mean Difference Between Domestic Students and International Students

The results of t-tests showed that there were no significant differences in the responses of the two groups of students in all the dimensions of perceived internationalization: academic (p=.339), organizational (p=.084), and social (p=.566), thereby rejecting hypotheses 1, 2 and 3.

Table 3 T-test, means and standard deviation

Variables and factors	International students (n=124)		Domestic students (n=624)		Group comparison		
	Mean	SD	Mean	SD	t	df	p
Academic Dimension							
AD1 The content in my courses is often illustrated with examples from, or applied to a range of cultural and international situations.	3.90	0.582	3.76	0.025	2.252	746	0.03*
AD2 The content of my courses is presented from a range of different cultural and international perspectives.	3.81	0.683	3.77	0.027	.578	746	0.56
AD3 The learning focuses more about international issues than on Thai issues.	3.98	0.888	4.25	0.028	-3.760	746	0.00*
AD4 Assessment tasks in my courses are framed in international scenarios or require me to apply course materials or concepts to different cultural or international situations.	3.77	0.613	3.88	0.028	-1.683	746	0.09
AD5 In my courses, we have been given a good introduction on how to work effectively in cross-cultural groups.	3.77	0.825	3.73	0.030	.601	746	0.55
AD6 Group work in my courses provides a real opportunity to learn about different cultures and gain different perspectives about my area of study.	3.87	0.765	3.80	0.029	1.026	746	0.31
AD7 The teachers in my courses appear to have a deep understanding of how my discipline or profession operates in different cultures and countries around the world.	3.77	0.774	3.87	0.028	-1.424	746	0.16
AD8 In my courses this year I have become aware of how culture, religion and values have influenced, or shaped my area of study.	3.75	0.772	3.55	0.034	2.384	746	0.02*
AD9 I am aware of, or have had, the opportunity to include courses on language studies, country or culture studies or study overseas as part of my degree program.	3.78	0.889	4.22	0.028	-6.107	746	0.00*
AD10 There are teachers from other countries in my programme.	4.09	0.786	4.04	0.039	.574	746	0.57
AD11 Programs or courses are delivered in English.	3.65	1.06	4.01	0.037	-3.819	746	0.00*
AD12 My programme prepares me to work in an international environment.	3.75	0.833	3.64	0.033	1.361	746	0.17
AD13 Academic staff encourage me to contribute relevant examples from my background experience in class discussions.	3.81	0.823	3.70	0.029	1.445	746	0.15

Variables and factors	International students (n=124)		Domestic students (n=624)		Group comparison		
	Mean	SD	Mean	SD	t	df	p
Organizational Dimension							
OD1 University and college websites are available in different languages.	3.66	1.011	3.85	0.029	-2.449	746	0.02*
OD2 The library has a wide range of international texts.	3.52	0.924	4.07	0.027	-7.738	746	0.00*
OD3 Signs on campus are written in different languages.	3.53	0.906	3.60	0.036	-.797	746	0.43
OD4 Support staff is welcoming and open to international students.	4.06	0.758	4.07	0.028	-.156	746	0.88
OD5 Support staff can speak other languages besides Thai.	4.02	0.704	4.09	0.029	-1.000	746	0.32
OD6 University looks international when you walk around.	3.4	1.043	3.09	0.044	2.947	746	0.00*
Social Dimension							
SD1 There are good opportunities to participate in volunteer activities during my course.	3.56	0.913	3.65	0.032	-1.159	746	0.25
SD2 There are good opportunities to socialize with people in campus from many different cultural backgrounds.	3.8	0.826	3.67	0.034	1.607	746	0.11
SD3 There are international activities and events that help home students and those from other countries to mingle.	3.62	0.959	3.86	0.036	-2.633	746	0.01*
SD4 There are good opportunities on my course to meet people from many different cultural backgrounds.	3.95	0.805	3.93	0.030	.319	746	0.75
SD5 Socialising with students from other cultures/countries is part of my daily campus life.	3.75	0.813	3.83	0.034	-.911	746	0.36
SD6 The social environment on campus enables me to gain an understanding of different cultural and international perspectives of the world.	3.7	0.806	3.66	0.036	.443	746	0.66
Sense of Belonging							
SB1 I have a strong sense of affiliation with my college/university.	3.51	0.86	3.40	0.033	1.366	746	0.17
SB2 I have been encouraged to develop my strengths and talents at my college/university.	3.85	0.823	3.52	0.033	4.190	746	0.00*
SB3 I feel I am a part of a close and supportive community of colleagues and friends.	3.82	0.625	3.81	0.029	.213	746	0.83
SB4 I am both challenged and supported at my college/university.	3.77	0.787	3.50	0.033	3.319	746	0.00*
Discrimination Experience							
DE1 I have felt insulted or threatened based on my cultural/ethnic background at my college/university.	2.46	1.171	3.96	0.044	-13.77	746	0.00*
Student Satisfaction							
SS1 I believe that my studies at University are giving me the necessary content knowledge, skills and perspectives to work effectively in overseas countries.	3.89	0.757	3.78	0.029	1.498	746	0.14
SS2 If you could start over again, would you go to the same institution you are now attending?	3.46	1.007	3.41	0.039	.499	746	0.62
SS3 Overall, how satisfied are you with all aspects of your university/institution experience?	3.76	0.769	3.32	0.038	4.81	746	0.00*

*<.05

Discussions

These results confirm previous studies suggesting similarity in the learning and teaching experiences of foreign and local students in Australia (Grebinnikov & Skaines, 2006). Another study in North America suggests that students, despite of origin, did not perceive differently that the campus honors diversity, as well as the engagement and participation in co-curricular activities (Glass & Westmont, 2013). Said study implies that both international and domestic students place importance into being academically and socially embedded into the university community, and have similar perceptions about the organizational support, facilities and services provided by the institution. However, the study of Spencer-Aotey & Dauber (2019) covering six universities in four different countries contradicts the above-mentioned findings. Domestic students had different viewpoints from foreign students about academic and social integration. The contradicting findings could be attributed to the expansive coverage of the latter study where the dissimilar HEI practices between the four countries could have shaped the differing experiences of domestic and local students.

There were significant differences in the responses in three areas: sense of belonging (p=.001), discriminatory experience (p=.000) and satisfaction (p=.001). These findings support Hypotheses 4, 5 and 6. As foreign students consider the sense of belonging especially important in their academic success, they may tend to exert more effort to connect and be part of the college community (Glass & Westmont, 2013). The difference in discriminatory experience suggests that there might have been instances of discrimination among the international students. Glass & Westmont (2013) pointed out that discrimination is a risk that international students may encounter in the course of their study abroad.

Considering the t-test results of individual items, international students were more likely than domestic students to think that the institution is more internationalized in terms of course contents (AD1=.025, and AD8=.017). They were also more likely to perceive that the university's physical environment looks international when you walk around (OD6=.003). In terms of sense of belonging, this group of students were more likely to feel that they were receiving support and encouragement to develop their strengths and talents (SB2=.000, and SB4=.001).

However, there were also many areas that foreign students perceived less than the local students. Foreign students were less likely than domestic students to think that their learning focuses more on international issues than Thai issues (AD3=.000). They were also less likely to believe that there are opportunities to participate in study overseas as part of their degree program (AD9=.0000). They have less positive perception of the use English language in course delivery (AD11=.000), and the use of different languages in university and college websites (OD1=.015), as well as the availability of a wide range of international texts in the library (OD2=.000). Foreign students were less likely to think that there are international activities and events that help home and international students to mingle (SD3=.009). These results have similar patterns with the outcomes of existing studies which suggest displeasure of overseas students in some areas of their learning experience and environment Glass & Westmont, 2013; Grebennikov & Skaines, 2006; Spencer-Aotey & Dauber, 2019).

International students were more likely to have felt discriminated against (DE1=.000), which is not surprising as reported by previous studies. Nevertheless, despite the discriminatory experience and the low perception of some areas of academic and social dimensions, this study found that foreign students were generally more satisfied with their university experience than

the home students (SS3=.000). The study of Glass & Westmont (2013) could somehow explain this phenomena. He used the resilience-based model of acculturation to explain the buffering effect of belongingness in the success and cross-cultural interactions of international students. Despite the challenges faced by international students, they learn to be resilient in adapting to their new academic and social environment, hence they reported higher level of sense of belongingness and satisfaction. They appreciate even minimal cues of social connectedness affecting their achievement motivation, which could be different with local students (Glass & Westmont, 2013). Domestic students do not face the challenges of being away from home and would likely have access to resources that might divert their connection and integration with the university.

Conclusion and suggestions

Domestic and international students did not perceive differently the extent of internationalization of the host institution. Significant differences were found, however, between the two groups in terms of sense of belongingness, discrimination and satisfaction. Foreign students reported to feel a stronger sense of belonging and higher level of satisfaction than their local counterparts. However, they were also most likely to have felt discriminated against.

Measures of the individual items showed that international students had a more positive perception of the course contents and the university's physical environment. However, they indicated less positive perception of the availability of opportunities to participate in exchange study, and having student activities and events to mingle and socialize. They also think less positively about the use of English language in teaching and communication websites. The differing perceptions and attitude of domestic and foreign students suggest that the institution may consider to further develop and improve the various aspects of internationalization in order to satisfy their needs and enhance their student experience.

The study has the following implications on research: first, it contributes to literature on HEI in Asia by examining a cross-section of domestic and international students, and presenting the similarities and differences in the perceptions, sense of belonging, discriminatory experiences and satisfaction of these two groups of students. Second, it empirically shows the risk of discrimination that may be perceived by international students. Third, the differing perceptions and attitude of domestic and foreign students suggests that the institution may consider to further develop and improve the various aspects of internationalization to benefit both foreign and domestic students, hence enhancing their student experience and satisfaction.

New knowledge and the effects on society and communities

Future research studies would benefit from using a larger sample size for international respondents. A mixed approach of quantitative and qualitative methods can be used to better understand the perspectives of the respondents. A regression study that would determine the antecedents of perceived internationalization would help in further understanding what factors cause some people to have more positive perception and higher level of satisfaction. It would also be of interest to examine the motivation of students in selecting their course, acceptance and expectations.

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Factors Affecting the Weaving Wisdom Management of the Weaving Group Members in Luang Prabang Province, Lao People's Democratic Republic

Somchay Phaignavong
Faculty of Education, Souphanouvong University, Lao People's Democratic Republic
Saisakul Fongmul*, Phahol Sakkatat and Kangsadan Kanokhong
Program in Resources Development and Agricultural Extension, Faculty of Agricultural Production Maejo University, Thailand
E-mail: somchaiph20@gmail.com, saisakul@mju.ac.th*, phahol@mju.ac.th and kangsadan@mju.ac.th
*Corresponding author

Abstract

The purpose of this research was to study basic personal, social, economic and factors related to weaving wisdom management of members of Luang Prabang Weaving Group. Lao People's Democratic Republic By collecting data from members of the weaving group of Luang Prabang Province, Lao PDR; The data was collected by the questionnaires from 326 samples of weaving group in 15 villages The sample group were sampled using a computational method and using descriptive statistics to analyze frequency, percentage, mean, and standard deviation and conducting Enter Multiple Regression Analysis

The findings of this study revealed that sampling average age group are 50.12 years old; 82.8 percent of sampling group are weaving as their major job; 85 percent are registered as weaving group members; and had 29.35 years of experience, the annual family income from weaving activities totaling around 20,279 Thai Baths (THB) and the factors related to knowledge management of weaving wisdom among weaving group members in Luang Prabang Province Lao People's Democratic Republic. It was found that all 15 independent variables had 47.50 percent ($R^2 = 0.475$) of weaving wisdom knowledge management of the members of the weaving group in LuangPrabang Province. The remaining 52.50 percent were influential from other factors not determined in this study. and when considering the independent variables affecting knowledge management of weaving wisdom in Luang Prabang province. statistically significant It was found that there were altogether 3 variables, with 2 positive effects, namely the position in the village. Receiving information about weaving and negatively affecting one variable, experience about weaving. which has a statistically significant correlation at the 0.05 level.

Keywords: Factors, Weaving wisdom, Management, Affecting

Introduction

Woven cloth is one part of a cultural heritage that has been passed down from the past to the present. Weaving is a work of art. Folk crafts represent the art of wisdom, and the ways of life, culture and community. Jomthong (2003) Weaving is a body of knowledge arising from experience. Thoughts and beliefs related to the culture of life of the local people are deeply embedded in each person, and are passed on from one generation to another generation. Through the use of social costs that exist in the community, including the natural capital that facilitates the transformation of resources into an intellectual product, the weaving process of rural communities, had as its original production the purpose of subsistence or to make for their own use, or to exchange between members of the community. When there is leftover product from the consumption of people in the community, it is sold to generate income for the family. Boonrueng et al. (2016)

Weaving, for the Luang Prabang community, is a secondary occupation after farming. In most villages, at the end of the farming or harvesting season, a group of housewives will weave cloth. It is done for the benefit of the family, when it is more productive. And as it has become popular with the general public, so it has evolved into a business. The business community is important to economic development. The society within Luang Prabang Province, helps the community to have work. The additional income from the community weaving operations is largely funded and promoted by government agencies. In the past, the production of handicraft products and services had expanded. The province has promoted the added value of local handicrafts such as cloth weaving, production of goldware, silverware, wood carving and souvenirs by opening a market for villagers to bring local handicrafts to sell at tourist attractions in Luang Prabang Province. This is to solve the problems of suffering and improve the quality of life of the people. Department of Industry and Handicraft, (2016)

The expansion of the weaving business, originally a local wisdom made for household consumption, has changed its form. Nowadays, weaving has become one of the main occupations that can generate income for the family throughout the year. Theeravanich (2003) and Wicharueng (2000); In addition, this is to meet the needs of local consumers, but also to produce to meet the needs of the market as well. Importantly, woven fabrics of Laos are made from cotton and silk which are a unique local handicraft product, in particular the woven fabrics of the Luang Prabang community, Pak Ou and Nam Bark districts. They were originally produced for family use and most of the producers were women. But as the market growth increased, communities could bring woven fabrics to sell more as products for tourists. The state encourages women in co-production, which is a new weaving process. This is a new phenomenon in the community of Luang Prabang Province, Lao PDR. Department of Planning and Investmen, (2016)

According to the above context of the weaving management in LuangPrabang showing such important and benefit to the peoples in terms of the local economic to make an income to weaving group for a many years ago; However, in the reality we found that the weaving management here in LuangPrabang province is facing with challenges particular the weaving wisdom in order to transfer this local wisdom for generations, this is very important and necessary to study and finding the way to address the challenges and conserve this kind of local wisdom the weaving management. Na Thalang (2003)

The research has an objective to study the characters of weaving member in Luang Prabang including of personal factors, social factors and economic factors, and the relationship between the factors of weaving and weaving wisdom management.

Therefore, regarding the factors related to weaving management of the members of the Luang Prabang weaving group, Lao PDR, the results of this study will provide useful information for the development of weaving, as a career to ensure the wealth of the community in order to be strong and sustainable.

Methodology

Population and sample group

The population used in this study were selected from three districts of Luang Prabang Province, Lao PDR, consisting 15 villages with a total of 1,751 people. The sample group were sampled using a computational method at a reliable level of 95 % and a 0.05 level of projection was allowed for a sample of 326 people. Yamane, T (1973)

Data collection

The data was collected using a questionnaire to collect information from members of Luang Prabang Province Weaving Group, Lao PDR in 2020. A four-part questionnaire was completed by the sample group of 326 people. To find study an impact factor to weaving management by following with the reporting of province on the impact and challenges of handicraft promotion policy in Luang Prabang province which it aligns of 3 impacted factor name as the personal, social and economic factors. Jomthong (2003)

1) The personal factors were age, occupation, educational level, marital status and ethnicity.

2) Social factors including holding a position in the field of weaving, belonging to a weaving group, receiving training information and the observations from field trips.

3) Economic factors namely the number of family workers who weave, weaving experience, the length of time it takes to weave, capital used for weaving, and family income from weaving per year.

Data Analysis

After collecting the data, the accuracy of the data was checked and analyzed using the quantitative data by using the instant statistics program (SPSS for Windows) to distribute the data as follows:

1) Personal Factor Analysis: social factors, economic factors and weaving management of the members of the Luang Prabang Province weaving group Lao PDR. This research used statistics to describe the statistical data to interpret the meanings of frequency, percentage, mean, and standard deviation, minimum (Min) and maximum (Max).

2) Analysis of the factor that relationship to weaving management of the members of the Luang Prabang Province weaving group Lao PDR by descriptive analyses to find percentage and enter multiple regression analysis statistics. Wadecharoen et al. (2017)

Results

Personal factors

The result of personal factors analytical for the member of weaving group Luang Prabang Province weaving group Lao PDR found that below:

Age:

The average age of weaving group members was 50.12 years, the lowest age was 20 years, and the highest age was 76 years. Most of the weaving group members were between 40-60 years old, representing 65.1%, followed by 60 years, representing 22.1%, and 20-40 years, representing 21.2%. and the lowest ere 20 year that accounting only 0.6; in this case we found that the member who are among 20-40 years and blow 20 years old seemly has quite low management of weaving due to this range of age are the student who are taking their colleges, they are normally went to colleges in the city or carry-on other service job after finish high school

Occupation:

Most weaving member are conducting weaving as their main occupation in about 82.8%, following farmer presenting of 12.6%, and the last 4.6% of weaving member are gardener, we notice that the farmer and gardener are very low percentage due to this work are not convenient to women to do. In the same way, the province has campaign promote the market of local handicraft, the people could distribute their product in a Fair, the street market or tourist place in order to fight the poor and developing their living; this process could inspire other women to do more weaving. Luang prabnig Provincial planning and Investment (2020)

Education:

Most weaving member had a Elimentary level or lower, representing 94.8%, followed by lower secondary school, representing 2.5%, the Upper secondary school, representing 1.8% and last 0.9% are graduated a diploma from the college; In fact, the member who graduated their college are majorly working in the city, work with government or other services, therefore the majority of the weaving group member are holding educational level for primary school or lower.

Marital Status:

Most weaving member were married, representing 95.4%, only 2.5% of member who are single and the last 0.5% of weaving member are divorce and 1.5% are widowed; we noticed that most member are in the middle age and quite higher therefore the married status are the majority of them.

Ethnicity:

Most weaving member are Thai Lue, representing 96.0%, followed by 30.1% being Thai-Lao ethnic group, and the Thai Yuan ethnic group, representing 0.9%; in other reasons Thai Lue had very unique language and cultural that is why the weaving wisdom are majority holding be this ethnic group, respectively (Table 1).

Table 1 Percentage of weaving group members classified by personal factors

personal factors	Quantity	Percentage
Age		
Less 20 Years	2	0.60
20 – 40 Years	69	21.20
41 – 60Years	183	56.10
60 Years More	72	22.10
Total	326	100.00
Mean = 50.12 S.D. = 11.97 Max-Min = 76-20		
Occupation		
Weaver	270	82.80
Farmer	41	12.60
Gardener	15	4.60
Total	326	100.00
Education		
Elementary school or less	309	94.80
Lower secondary school	8	2.50
Upper secondary school	6	1.80
Diploma	3	0.90
Total	326	100.00
Marital Status		
Single	8	2.50
Married	311	95.40
Divorce	2	0.60
Widowed	5	1.50
Total	326	100.00
Ethnicity		
Thai - Lao	98	30.10
Thai Lue	225	69.00
Thai Yuan	3	0.90
Total	326	100.00

Social factor

The results of the analyses on social factors for the weaving group member in Luang Prabang province, Lao PDR showed the following factors:

Tenure in weaving

Most of the weaving positions were group member, representing 85.00%, following with the group manager that representing 10.10% and the less of 5.00% are the villager member.

Weaving Membership

Regarding joining the weaving group, on average at 19.02 years, the lowest and highest member age are in range of 10 – 40 years; there are 24.30% of member who joined between 21-30 years; the member who joined longer than 30 years, 11-20 years and less than 5 years are respectively 23.30%, 23.00% and 22.10%; also the 5-10 years membership are representing only 22.10%.

Information Receiving

Members of the weaving group mostly received information about weaving through social media (Facebook), representing 42.30%; followed by television media representing 28.20%; from their friend representing 14.70%; and radio media representing 10.10%; in the same way there are only 4.60% of member who received an information from the official

In addition, the number of receiving an information about weaving are annually of 11-20 time, representing 42.60%; 5-10 time representing 27.00% and other 21-30 time, over 30 time are respectively representing 23.70% and 1.50%; also, the information receiving less than 5 time a year are representing only 5.20%

Training

There are 76.10% of weaving member received weaving training sessions and the less 23.90% of member are never; there are average of 4.93 training sessions in a year. the lowest participation is 1 course and highest are 9 courses per year, there are over half of member who received 5-7 sessions, representing 51.20% and about 28.3% are received 2-4 session, 8.50% are over 7 sessions and the last 12.00% are member who participated less than 2 sessions a year

Weaving filed trip

There are 64.40% of member who went for weaving filed trip and other 35.60% are never; the weaving group members had an average of 4.32 weaving field trips, with the lowest being 1 and the highest being 12 times. The weaving group members had taken 1-2 weaving field trips, the most common number at 42.90%, followed by over 5 times, representing 35.60%, and 4-5 times and 2-3 time are representing 13.20% and 8.80% respectively

Table 2 Percentage of weaving group members classified by social factor

Social Factors	Quantity	Percentage
Tenure in weaving		
Group manager	33	10.10
Group member	277	85.00
Villager member	16	4.90
Total	326	100.00
Weaving Membership		
Less than 5 years	61	22.10
5 – 10 years	20	7.40
11 – 20 years	64	23.00
21 – 30 years	67	24.30
More than 30 years	65	23.30
Total	326	100.00
Mean= 19.02 S.D.= 12.68 Min - Max = 0 - 40		
Information channel		
Radio	33	10.10
Television	92	28.20
Social media	139	42.30
Official	15	4.60
friend	48	14.70
Total	326	100.00
Information receiving (Per year)		
Less than 5 times	17	5.20
5-10 times	88	27.00
11-20 times	139	42.60
21-30 times	77	23.70
More than 30	5	1.50
Total	326	100.00
Mean = 15.39 S.D.= 6.96 Min - Max =5-32		

Social Factors	Quantity	Percentage
Training		
Never	78	23.90
Ever	248	76.10
Number of sessions		
Less than 2 sessions	30	12.00
2 - 4 sessions	70	28.30
5 - 7 sessions	127	51.20
More than 7 sessions	21	8.50
Total	326	100.00
Mean = 4.93 S.D.= 3.96 Min - Max = 1 - 9		
Weaving filed trip		
Never	116	35.60
Ever	210	64.40
Number of trips		
Less than 2 trips	90	42.90
2 - 3 trips	18	8.80
4 - 5 trips	28	13.20
More than 5 trips	74	35.60
Total	326	100.00
Mean =4.32 S.D.= 4.61 Min - Max = 1 - 12		

Economic Factors

The results of the analyses on economic factors for the weaving group member in Luang Prabang province, Lao PDR showed the following factors:

The weaving worker

the average number of weaving workers in the family was 2.02 persons, with the lowest number of 1 weaving worker and highest of 5 workers; Most family has under 2 workers accounted for 71.20%; following with family of 2-3 weaving workers accounted for 17.50% and family of 4-5 worker accounted for 9.80%; the family with 6 workers and over were found at only 1.50%; the explaining on the statistics about weaving worker that most family has less than 2 persons instead of 5 persons due to the labour traffic that many of young peoples leaved to find out their job in the city or working in other occupation

The Weaving experiences

The average in experiences of weaving member was 29.35 years, with highest and lowest years at 46 and 1 years respectively; most of member has over 30 years of weaving experience accounting for 36.60%; follow with 21-30 years that accounting for 36.50%; and 21.50% of 11-20 weaving years; in addition, the weaving experience between 5-10 years and under 5 years are accounted for 4.00% and 1.20% respectively

Weaving time

Most member spend fulltime for weaving in a year as their main work accounting for 87.10% and about 8.90% take their time after plantation and 4.00% take weaving after harvesting. Meanwhile the plantation in family as under took by the man

Funds for weaving

The average amount of fund that weaving member used for weaving is 8,439.23 Thai bath; while the lowest amount is 652 Thai bath and highest at 35,780 Thai bath; over half of member spend more than 6,000 Thai bath; follow with between 3,001-6,000 Thai bath that accounting for 27% and between 1,000-3,000 Thai bath that accounting for 9.50%; the member whom spend under 1,000 Thai bath for weaving are accounting only 0.30%

Income from weaving

The family incomes from weaving in a year of the member are average amount of 20,279. 40 Thai bath per year; the lowest incomes are 2,391 Thai bath and highest at 66,857 Thai bath; the member whom incomes over 12,000 Thai bath a year accounting for 83. 40%; while incomes of 9,001-12,000 Thai bath and 6,001-9,000 Thai bath are accounting for 8,60% and 6,70% respectively; the member whom incomes between 3,000-6,000 Thai bath and under 3,000 Thai bath are accounting only 0.90% and 0,30% respectively. These are in comes from the weaving only but not included from other plantation or business.

Table 3 Percentage of weaving group members classified by economic factors

Economic factors	Quantity	Percentage
The weaving worker		
Under 2 persons	232	71.20
2 – 3 persons	57	17.50
4 – 5 persons	32	9.80
More than 5 persons	5	1.50
Total	326	100.00
Mean = 2.02 persons, S.D. = 0.73 Min = 1.0 people Max = 5.0 persons		
Weaving experience		
Under 5 Years	4	1.20
5 – 10 Years	13	4.00
11 – 20 Years	70	21.50
21 – 30 Years	119	36.50
Over 30 years	120	36.80
Total	326	100.00
Mean =29.35 Years S.D. =11.56 Min = 3.0 Years Max = 46.0 Year		
The Weaving time		
all year weaving	284	87.10
After rice plantation	29	8.90
After harvesting	13	4.00
Total	326	100.00
Funds for weaving		
Under 1,000 THB	1	0.30
1,000 – 3,000 THB	31	9.50
3,001 – 6,000 THB	88	27.00
Over 6,000 THB	206	63.20
Total	326	100.00
Mean =8,439.23THB S.D.= 5.793.29 Min= 652.0 THB Max=35,780.0 THB		
Family income from weaving		
Under 3,000 THB	1	0.30
3,000 – 6,000 THB	3	0.90
6,001 – 9,000 THB	22	6.70
9,001 – 12,000 THB	28	8.60
Over 12,000 THB	272	83.40
Total	326	100.00
Mean =20,279 THB S.D.= 11.385 Min= 2,391 THB Max= 66,857 THB		

Factors related to weaving management of weaving group members

The results of the analysis of factors related to knowledge management of weaving wisdom of weaving group members in Luang Prabang Province Lao PDR, it was found that all 15 independent variables had had only 47.50% ($R^2 = 0.475$) influence on weaving wisdom knowledge management in the weaving group in Luang Prabang Province; this is quite low statistic for the influent factor; meanwhile the remaining 52.50% were influential from other factors that does not determine in this study. and when considering the independent variables affecting knowledge management of weaving wisdom of weaving group members in Luang Prabang province with statistically significant found that there were altogether 3 variables with 2 positive effects, namely the position in the village, receiving information about weaving and had a negative effect variable about weaving experiences that statistically significant relationship at the 0.05; meanwhile the factors of age, occupation, education level, status, ethnicity, membership in the weaving group, training on weaving, field trip, weaving worker, weaving time, funding and income are not affect the knowledge management of the weaving wisdom (Table 12)

All 3 independent variables that affected the dependent variable was the knowledge management of weaving wisdom of weaving group members in Luang Prabang Province. can be explained as follows

1. Tenure in weaving

When every fixed value of the weaving group members holding a position in the village increases by 1 position, it will result in the weaving wisdom knowledge management average of the weaving group members increased by .134 points. Therefore, the position in the village is an important part in managing the knowledge of weaving wisdom of weaving group members**.**

2. Information receiving

When every constant value of the weaving group members receiving information about weaving increased by 1 time, it resulted the mean of weaving wisdom knowledge management increased by $.006$ points because receiving information about weaving is an important part of learning to develop oneself about tools, materials, weaving equipment, weaving techniques and develop more woven fabric patterns

3. Weaving experience

When the fixed value of the weaving group members with more weaving experience for every 1 year, it will result in a decrease in the weaving wisdom knowledge management average at $-.005$ points This is because weaving requires a lot of skill and expertise of the weaver. Because weaving has a delicate process. and takes time to weave Therefore, having more experience in weaving will shorten the weaving time.

Table 4 Shows the test results of the relationship between various factors on weaving management of weaving group members

No	Independent variables	Dependent Weaving management of weaving group members		
		B	**t**	**Sig.**
1	Age	.004	1.564	.119
2	Occupation	-.034	-.598	.550
3	Education level	.050	.529	.597
4	Marital status	-.010	-.100	.921
5	Ethnic	-.029	-.686	.493
6	Tenure	.134	2.124	.034*
7	Weaving Membership	-.002	-1.038	.300
8	Information Reception	.006	2.034	.043*
9	Training Received	.011	1.880	.061
10	Educational Trip	.003	.684	.494
11	Weaving labour	.009	.474	.636
12	Weaving Experience	-.005	-2.010	.045*
13	Weaving time	-.047	-.796	.427
14	Weaving fund	-1.357E-6	-.346	.730
15	Weaving Income per Year	1.292E-6	.754	.451
	Constant	3.423	20.871	.000**
	R^2 = .475 (47.5%) F = 13.67 Sig. F = .000			

In conclusion, we found only 3 independent variables which it impacts to weaving management name as the tenure in weaving, the Information received, and the weaving experience. The reason of these 3 impact factors is directly related to the literacy of weaving and need more time to gain the knowledge on this; in addition, these 3 factors are significancy of relation to the weaving management at the level of .05; meanwhile the other 12 remaining factors are generally about their personal information or background of the weaving member, technically this is not significant related or influenced to their management weaving skills

Discussions

From the research results, it is possible to discuss factors related to weaving management of the members of the Luang Prabang weaving group, Lao PDR, as follows:

The subsistence of positions in the village is related to the management of knowledge and weaving wisdom of the members of the weaving group in Luang Prabang, Lao PDR; The results was in line with Ngernthong (2016) who studied the problem of Mudmee silk production group in SiBunruang Subdistrict, Rural District, Khon Kaen Province; this study found the Fabric Group There are currently 2 groups that are continuously developing, namely Ban SiBunruang Silk Weaving Group and Thai Charabot Silk Weaving Group. among these group, a new design has been invented and used as the selling point of the group itself and have their own branding; this research also in line with in with the theory of role; Chumparat (2001) states that role is the fulfillment of the duties of status or position that a person has, such as having the status of father and mother is to raise children. the human could hold many roles depending on where they are or what they do; some people playing role of parents at home then having role as supervisor or subordinate at the office…; The role of human beings is reflected in the way of coexistence in society. In addition, this also In line with the concept of gender roles in development, the Lao women's Union (2000) states that women now have equal roles with men in socio-economic development. According to the concept of gender roles and development, women have 3 roles, namely the role of taking care of family members, the role of production, and the role of the community. Jutaviphat (2012) Family care roles involve taking care of the livelihoods and health of those in the household such as infants and school children. Such roles may include activities of daily living such as cooking, laundry and washing. Dishes, house cleaning, etc.

Receiving information about weaving is related to the management of weaving knowledge and wisdom of members of weaving groups in Luang Prabang. Thai and foreign customers' needs for hand-woven silk products were found to have similar content needs. They want content about the unit price, shipping channels, and how to maintain hand-woven silk products; referred in NaSungChon (2006). Demonstrate that the content, pricing, delivery channels, and how it is maintained are content or information necessary to make a customer's purchasing decision. So, the message we need to communicate with the target audience is to get what they want, and how to communicate with any platform to reach our target? When considered, it can be seen that entrepreneurs must communicate with their target audience through channels that target Thai and foreign customers most wanted, namely modern media, such as online media such as social networks, social media, and search engines, or in various websites, etc. Akanit (2006); who studied Marketing communication of Khmer civilization silk and product design to create added value for the community: A case study of Ban Takro Nuea Silk Weaving Group, Huay Prasad District, Nakhon Ratchasima Province. referred in Sangsida (2003) His study reveal that the customer needs an exhibition shops and communication through social media such as Study on the problem situation and needs of local textile products in Loei province; referred in Kiatmaneerat (2003). It was found that 95.6 percent knew about local textile products in Loei province from various sources and 3.6 percent did not. Sources of known information are recommended, followed by media (radio, television, broadcast tower), print documents (folding plans, magazines, banners) and the Internet, which is in line with the research of Khulelang (2006) who The Relationship Between Marketing-Oriented Business Operations and Performance. The work of the silk producer group OTOP project in the northeastern region. It was found that the appropriate integrated marketing communication

tool for OTOP silk products is to set up a booth to exhibit products. Government campaigns that encourage government agencies to dress with Thai fabric and the use of online media to reach all target groups and Suwannaas (2016) who study Development of marketing strategies for silk wall striped products from geographical indications Through the participation of the San Kamphaeng community, San Kamphaeng District, Chiang Mai Province, it was found that in terms of marketing communications, the current forms of operation are public relations through Sankampaeng Walking Street, word of mouth, the use of famous presenters such as senior government officials, and public relations via Line/Facebook/Instagram, public relations through local cable TV, and promotion from the government.

Weaving Experience is related to the weaving management of the members of the weaving group, Luang Prabang Province, Lao People's Democratic Republic. The research results are in line with the study of Khulelang (2006) on the relationship between marketing-oriented business operations and the performance of OTOP silk producers in the Northeast. It was found that the experience correlates with the relationship between the market-oriented business operation and the performance of the OTOP silk producers in the Northeast. Kenpitak (2004) A study on business management potential of agricultural cooperative managers in Khon Kaen province found that experience correlates with business management potential of agricultural cooperative managers. Chumparat (2001) Study on Role of conducting group business activities of farmers housewives group members In Khon Kaen province, it was found that the experience correlates with the role of the group business activities of the members of the farmer housewives' group.

Conclusion and suggestions

The results of the analysis of factors related to the management of knowledge and weaving wisdom of members of the weaving group in LuangPrabang province. In the Lao People's Democratic Republic, it was found that a total of 15 independent variables influenced the management of weaving knowledge among weaving group members in LuangPrabang province by 47.50% ($R2 = 0.475$), while the remaining 52.50% was influenced by other factors not specified in this research. we found that the personal factors are not significant related to weaving wisdom management of members of Luang Prabang Weaving Group refer to the analytical of those factors, It was found that there are 3 variables, with 2 positive effects: Position in the village. Receiving information about weaving and had a negative effect on 1 variable, namely experience with weaving, which was statistically significantly correlated at 0.05 levels, age, occupation, education level, status, ethnicity, weaving group membership, weaving training. Field trips, number of family labour weaving, time spent weaving, funds spent on weaving. Family income from weaving It does not affect the management of knowledge and weaving wisdom of members of the weaving group in LuangPrabang, Laos;

Anyhow, after the research we could have the suggestion as below:

1) Younger women should be encouraged to participate in the weaving process, especially young people who can learn how to weave, as well as inherit the wisdom of weaving in a sustainable way.

2) Low-income families should be encouraged to join the group in more weaving operations to create a career and income for the community, as well as improve the quality of life of the family and the community to be better.

3) the result of the factor analytical reveal that over 35 percent of weaving member are never experience to visit and exchange with other weaving group in another places, meanwhile this factor is importance to relate weaving wisdom management to enhancing the member to

see and learn new style of weaving with new group and visiting new places could enrich them to new marketing and increasing their income from weaving.

New knowledge and the effects on society and communities

This research reveals many deep information and understand about the reality of the weaving group in LuangPrbang province, Lao PDR; the significant impacted factors we found is the very helpful for us and local weaving group in order to be a fundamental data for the weaving development planning especially its management and wisdom safeguarding and make it sustainable

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06

Approaches to Developing the Manufacturing Industry of Small and Medium Enterprises for Readiness Towards Large Businesses in Thailand

Nilawan Sawangrat
Faculty of Business Administration,
King Mongkut's University of Technology North Bangkok, Rayong Campus, Thailand
E-mail: nilawan.s@fba.kmutnb.ac.th

Abstract

This research aims to 1) study the structure and operational characteristics of the manufacturing industry in small and medium- sized enterprises (SMEs) in Thailand for readiness towards becoming large- scale businesses; 2) investigate the components of development approaches for the manufacturing industry in SMEs for readiness towards becoming large- scale businesses; and 3) develop a structural equation model (SEM) for the development approaches of the manufacturing industry in SMEs for readiness towards becoming large- scale businesses. The study employed a mixed- methodology approach, incorporating both quantitative and qualitative research. The qualitative research involved in-depth interviews with a sample of 9 experts from 3 different groups: 3 entrepreneurs or executives in the manufacturing industry, three from the government sector, and three academics. For quantitative research, data was collected via surveys from 500 entrepreneurs or executives and analyzed using frequency, percentage, average, standard deviation, and structural equation modeling (SEM) with the advanced statistical analysis software AMOS.

The research on the general characteristics of organizations found that they have been operating for 10-15 years, are predominantly Thai- owned, use financial institutions for funding, are established as limited companies, and mostly have offices located in Thailand. In terms of structure and operational characteristics, the research revealed that the most suitable business strategy for these organizations is creating a product advantage, emphasizing mentorship systems from knowledgeable employees, and key leadership qualities, including treating colleagues with kindness and generosity and developing leadership at various levels focusing on experience, comprehensive knowledge, and business expertise.

The study on the importance of different components indicated that all aspects were highly important, with the order of importance from highest to lowest being digital technology, entrepreneurial leadership, knowledge management, and innovative organization. The results of the analysis of the structural equation model for small and medium- sized enterprises management for sustainable strength found that the chi- squared probability (CMIN- ρ) was 0.128, the relative chi-squared (CMIN/DF) was 1.126, the GFI was 0.955, and the root mean squared index of error estimation (RMSEA) was 0.015. It can be concluded that the model is consistent with the empirical data.

Keywords: Digital technology, Knowledge management, Entrepreneurial leader and innovative organization

Introduction

Small and medium‑sized enterprises are important engines in driving the economy of Thailand. The Ministry of Industry has given importance to the development of small and medium‑sized enterprises by raising awareness and by encouraging small and medium‑sized enterprises to explore a research and innovation‑driven enterprises. In addition to making the business survive, it paves the way for success with the combination of using technology and creativity to achieve exponential business growth. The development approaches for small and medium‑sized enterprises (SMEs) by the Ministry of Industry align with Thailand's Twenty-Year National Strategic Plan (2018-2037) in building competitiveness for modern SMEs. This includes prioritizing foundational education for the youth to equip them with skills and an entrepreneurial spirit, developing essential and diverse labor skills, and nurturing entrepreneurs at all levels, especially in SMEs, to foster an entrepreneurial mindset. Businesses must be driven by technological innovation and creativity to add value and promote grouping and networking among entrepreneurs. There are five overall development strategies: 1) Develop entrepreneurial skills, 2) Create and develop entrepreneurs at all levels with an entrepreneurial spirit, 3) Develop start-ups by promoting the extension of ideas, 4) Encourage SMEs to adapt to new business models, and 5) Promote grouping and strong domestic and international networks of entrepreneurs (Ministry of Digital Economy and Society, 2021).

For small and medium‑sized enterprises in Thailand, investments in innovation and research are increasingly important. When compared to the proportion of the number of small and medium‑sized enterprises in Thailand, of more than 3 million, it was found that less than 1 percent, or less than 30,000, used research and innovation to transform their business. The main reason is the lack of knowledge, the inability to access information both within and outside the country, and the lack of funding due to the high cost of producing research or innovation. Therefore, there is no opportunity to jointly develop innovations or use research results commercially; there is lack of manpower whether it is personnel with knowledge in the workplace; lack of modern tools, digital systems and technology. As a result, Thailand is unable to enhance its global competitiveness. According to the rankings from the International Institute of Management in 2021, Thailand's economic competitiveness has decreased, ranking 28th out of 64 countries around the world. This is partly due to the fact that the Thai economy focuses on cost and price competition rather than qualitative development or value creation. As a result, Thailand is unable to fully respond to global needs (Mreport, 2019). Simultaneously, SMEs are highly sensitive and significantly impacted by economic recessions, recovering slower than larger enterprises, especially in international markets. Although SMEs adapt and improve the quality of production factors, they struggle to compete due to limited market access and increased financial fragility due to liquidity risks and rising debts. In contrast, large businesses have more resources and business potential, allowing them to develop diverse production models and invest more in research and development (Ministry of Industry, 2021).

Based on such importance, the researcher focuses on studying Approaches to Developing the Manufacturing Industry of Small and Medium Enterprises for Readiness Towards Large Businesses in Thailand by bringing the factors of digital technology, factors of knowledge management, factors of entrepreneurial leader and factors of innovative organization to build sustainable strength.

Objective
1. Study the structure and operational characteristics of the manufacturing industry in small and medium-sized enterprises (SMEs) in Thailand for readiness towards becoming large-scale businesses.
2. Investigate the components of development approaches for the manufacturing industry in SMEs for readiness towards becoming large-scale businesses.
3. Develop a structural equation model (SEM) for the development approaches of the manufacturing industry in SMEs for readiness towards becoming large-scale businesses.

Literature review
Digital technology
Digital technology is a tool to develop competitiveness that creates economic value for small and medium- sized enterprises. With the advancement in digital technology, entrepreneurs are able to receive news quickly and reach target groups around the world. The use of digital technology creates opportunities for small and medium-sized enterprises to make business modern and efficient. From the study of the theoretical concepts, it was found that digital technology is related to knowledge management. Ting et al. (2021) revealed that digital technology is a tool for storing knowledge to support the work of the entire organization. You can search, evaluate and retrieve information quickly. In addition, technology supports the collaboration of all parties. This helps to effectively communicate both internally and externally. Consistent with the study of Nwankpa et al. (2022), it was found that the emergence of digital technology helps organizations deal with big data. Data is analyzed via social media. There are various platforms arising from the good knowledge management capabilities of the organization. In addition, an organization should focus on learning results in employees having new knowledge and analytical thinking skills. The above relationship leads to research hypothesis as follows:
H1: Digital technology has a direct influence on knowledge management.

Studies of Erhan et al. (2022) have shown that due to changes in the internal and external environment of the organization, the organization must adapt to that change, for example, employees can work from anywhere without having to travel to work at the organization always. Such behavior results in creativity. Employees exhibit innovative behaviors. Skills are developed and adapted to accept the use of innovation in the organization. The organization has used digital technology to effectively reduce costs. Consistent with the study of Ardito et al. (2022), it showed that digital technology is rapidly changing, so organizations use knowledge management factors to deal with information systems by organizing information to be ready for use in the organization. As a result, it is an innovative organization with high economic growth value and one that uses state-of-the-art technology in manufacturing development, design and big data analytics to reflect the entrepreneurial vision. The above relationship leads to research hypothesis as follows:
H2: Digital technology has a direct influence on innovative organizations.

Entrepreneurial Leadership
Leadership is a fundamental quality that entrepreneurs must have. A good leader must be committed, always willing to learn new things, brave enough to make decisions, responsible for one's decisions, intelligent, has social competence, has an intrinsic motivation to succeed and has good human relations. Effective leaders must help subordinates to achieve their goals and can use the art to motivate others to follow for the organization to achieve success. From

the theoretical study, it was found that entrepreneurial leadership was related to knowledge management. For example, a study by Shahzadi et al. (2021) found that entrepreneurial leadership plays a role in promoting the knowledge management process in the organization so that employees can use knowledge to create success for the organization. Organizations with proactive leaders have the characteristics of working together as a team. The knowledge is shared. There is a high likelihood of success. Good leadership adapts to change. A good leader must have a visionary strategic mindset, must have the ability to adapt and be ready to deal with future crises. Knowledge management will help entrepreneurs increase their potential at all levels, from the operational level to the entrepreneurial level. This ensures that all employees have equal access to the knowledge available. The study of Latif et al. (2021) found that good leadership will make the organization achieve a good knowledge management process, which guides to the success of the organization. The above relationship leads to research hypothesis as follows:

H3: Entrepreneurial leadership has a direct influence on knowledge management.

In addition, entrepreneurial leadership has a direct influence on innovative organizations. For example, a study by Hoang et al. (2023) found that leadership is important for bottom-up innovation. Innovation promotes continuous development and modernization. Employees are more collaborative in their work which leads to higher work efficiency. Thus, entrepreneurial leadership is essential for small and medium-sized enterprises. On the other hand, a study by Sipahi & Artantas, (2023) found that entrepreneurial leadership influences the performance of small and medium-sized enterprises. It creates guidelines for good performance, clear understanding and trusts among group members. Good relationship is established making work smooth flowing for everyone. A joint plan of action is created to close the gap that hinders business operations; generating new creativity leading to organizational innovation. The study of Djalil et al. (2023) found that entrepreneurial leadership brings out employee creativity. Creative solutions from a person with a vision of the future for the business. Challenges encourage employees to design ways of working creatively. Thus, new innovation is introduced in the organization. The above relationship leads to research hypothesis as follows:

H4: Entrepreneurial leadership has a direct influence on innovative organizations.

Knowledge Management

Knowledge management is as a tool to help small and medium-sized enterprises create a competitive advantage among employees. It is knowledge that arises from experience or learning until they have skills and expertise to increase the potential for work or decision-making by transferring or sharing knowledge together. From the theoretical study, it was found that knowledge management was related to innovation organization. For example, the study of Khalil et al. (2022) found that knowledge management is knowledge sharing, developing and improving the learning of employees in the organization. They solve problems systematically. As a result, employees are committed and the organization has the ability to create innovation. If the knowledge management organization continues, this results in innovation throughout the organization. Consistent with the study of Samie & Jazghani, (2022), it was found that leaders can effectively use knowledge management to solve problems that arise in the organization and encourage employees to acquire new knowledge with the necessary thematic training to acquire new methods and processes for innovation. At the same time, information should be recorded or shared from successful and unsuccessful experiences in order to solve future problems leading to an organization of effective innovation. The above relationship leads to research hypothesis as follows:

H:5 Knowledge Management has a direct influence on innovation organizations

Innovative Organization

Innovation is the key to effective organizational growth. An innovative organization can be created by relying on quality human resources. There are also several important factors that contribute to the formation of an innovative organization. For example, entrepreneurs allow employees to be free to work; giving employees the freedom to try and make errors. No strict rules set to allow employees to participate in creating innovations to occur in a sustainable organization (Andersson et. al., 2023). Organizational innovation can arise from employees who focus on continuous learning, resulting in the organization being able to compete with the provision of new technologies for product research and development, resulting in better new products that are accepted by the market. Thus, knowledge management within the organization should be managed by training employees in the organization to have high performance and cope with new innovations to make the organization grow leaps and bounds by using a policy to motivate employees to try to create new innovations like no other. According to Nguyen (2023), knowledge management, digital technology and entrepreneurial leadership result in organizational innovation, making the organization competitive. They help employees to work quickly and solve problems that might arise appropriately. It also helps the organization to survive even in the face of a rapidly changing environment (Hwang et. al., 2023).

Conceptual Framework
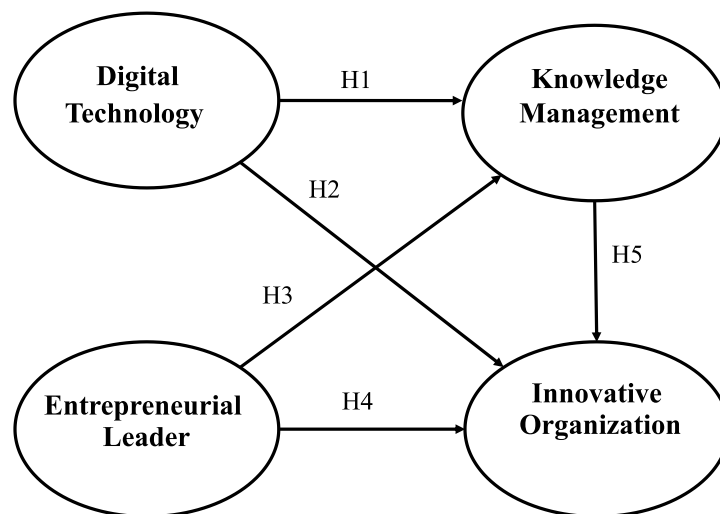
Figure 1 Conceptual Framework (Source: Researcher, 2023)

Methodology

Research Methodology

This research is an inductive research, utilizing a mixed- methodology approach, incorporating both qualitative and quantitative research methods. The steps are as follows:

1. Qualitative Research: This involves conducting in-depth interviews with a sample group of 9 experts from 3 different categories. These include three entrepreneurs or executives in the manufacturing industry, three individuals from the government sector, and three academics.

Research tools: Structured interviews with open- ended aspects, where the researcher has prepared an interview guide with four main components: digital technology, knowledge management, entrepreneurial leadership, and innovative organization.

2. Quantitative Research: This involves survey research. The population for this study is defined as the 79,424 legal entities registered with the Department of Business Development, Ministry of Commerce (Department of Business Development, 2021). The sample size is determined based on structural equation modeling analysis, with a very good level of 500 samples (Silpcharu, 2020). The sampling is done using probability sampling, where every individual in the entire population has an equal chance of being selected, employing simple random sampling techniques.

Research tools: The Questionnaire divided into three parts, as follows:

Part 1: of the questionnaire focuses on the general characteristics of the manufacturing industry of small and medium-sized enterprises. It is structured as a checklist with five items.

Part 2: of the questionnaire deals with the structure and operational characteristics of the manufacturing industry of small and medium- sized enterprises. It is structured as a checklist with five items.

Part 3: of the questionnaire focuses on components of the approach to developing the manufacturing industry for small and medium enterprises. It includes four components: 15 items on digital technology, 15 on knowledge management, 15 on entrepreneurial leadership, and 15 on innovative organization. The questionnaire is designed as a rating scale, with a 5- level weighting criterion following the Likert scale. The researcher's approach to creating the questionnaire involves seven steps:

1.1 Study the principles of questionnaire creation, following the conceptual framework of the research.

1.2 Review literature, documents, articles, and related research works to guide the formulation of questions.

1.3 Define the topics and scope of the questions to align with the research objectives and benefits.

1.4 Draft the questionnaire.

1.5 Assess the tool's quality by checking content validity. The draft questionnaire is reviewed by five experts to assess its quality using the Index of Item–Objective Congruence (IOC), achieving a congruence index of 0.96, which exceeds the 0.50 threshold, indicating that the questions align with the research objectives according to the criteria of Rovinelli & Hambleton (1977).

1.6 Check for reliability by testing the content-validated questionnaire on a try-out session involving a group of 30 people (not part of the sample group) and calculating the Cronbach's Alpha Coefficient, resulting in a questionnaire score of 0.95, exceeding the 0.70 standard and indicating high reliability according to the criteria of Nunnally (1978).

1. 7 Improving and correcting the questionnaire based on the results of discrimination index and questionnaire reliability analysis before implementation.

Data Collection: The data was collected by sending questionnaires to the manufacturing industry via mail. A total of 510 questionnaires were distributed, with 506 responses received. Out of these, 500 were complete, representing a 98.04% response rate from the sample group. This rate is acceptable according to the theory of Arbuckle (2001), who suggest that the response rate for a questionnaire should not be less than 20% of the sample group.

Statistics used to analyze data

Qualitative Research: In-depth interviews were conducted, and content analysis was used to synthesize the findings into guidelines for developing the manufacturing industry of small and medium-sized enterprises in Thailand, preparing them for transition to large businesses.

Quantitative Research: The data was analyzed using descriptive statistics, including frequency distribution and percentage calculation. For the 5-level rating scale, the mean and standard deviation were calculated. Additionally, multivariate statistics were used for structural equation modeling (SEM), utilizing the AMOS software for advanced statistical data analysis.

Results

Analysis of the General Characteristics of the Manufacturing Industry: It was found that businesses have been operating for 10-15 years (42.10%), are predominantly Thai-owned (58.90%), rely on financial institutions for funding (47.20%), are established as limited companies (63.40%), and have their offices located in Thailand (75.00%).

Analysis of the Structure and Operational Characteristics of the Manufacturing Industry: The most suitable business strategy is creating a product advantage (40.40%). The most emphasized aspect of organizational learning is mentorship from employees with specialized knowledge (34.80%). A key quality of leaders in these organizations is treating colleagues with kindness and generosity (38.60%), and leadership development at various levels focuses on creating experiences, comprehensive knowledge, and expertise in business (43.00%).

Qualitative Research

Digital Technology: To prepare small and medium-sized enterprises (SMEs) in Thailand's manufacturing industry for expansion into larger businesses, entrepreneurs must have knowledge of digital technology. This facilitates the production or provision of new services that meet constantly changing needs, creating a competitive advantage. Digital technology allows SMEs to diversify their online market channels, adopt new technologies to improve product quality, increase purchasing power, and sustainably grow their businesses. It also serves as a tool for SMEs to communicate with their customer base through various channels, creating market opportunities, enhancing business efficiency, and supporting competition in new forms. Moreover, SMEs must possess essential knowledge in artificial intelligence, automation systems, and Big Data to develop their businesses and enhance their existing skills through lifelong learning, accessible anytime and anywhere. Importantly, digital technology helps businesses reduce costs, increase production efficiency, improve the quality of goods and services, create employment opportunities, expand markets, and elevate the level of products and services.

Knowledge Management: To develop the manufacturing industry in small and medium-sized enterprises (SMEs) in Thailand and prepare them for larger businesses, it's crucial to foster an organizational atmosphere where daring thoughts and unique opinions are encouraged among all members. This approach helps understand needs, recognize problems that impede work, and open opportunities for everyone's proactive participation in organizational development, from executives to operational staff. Knowledge management for SMEs should start by identifying the knowledge necessary for the organization and analyzing its location within different departments, focusing on the most critical knowledge and its custodians to allocate resources efficiently. Additionally, if SMEs lack sufficient resources, they should support employees in exchanging and learning from each other, fostering new knowledge, and ensuring all organizational levels have equal access to knowledge and self-development opportunities. This leads to efficient performance and enables SMEs to compete at the highest level. Moreover, SMEs should integrate modern information technology systems to allow personnel to swiftly seek new knowledge externally.

Entrepreneurial Leader: For the development of the manufacturing industry in small and medium-sized enterprises (SMEs) in Thailand and their readiness for larger businesses, entrepreneurs must possess a visionary approach to management that is adaptable to change. They should listen to others' opinions, collaborate, and jointly solve problems with organizational staff to enhance work efficiency. Additionally, they should support and assist their colleagues, possess communication skills, and have the ability to persuade and motivate employees to participate in work activities. Emotional intelligence is also crucial, enabling the effective management of one's own and others' emotions. Entrepreneurs should have intellectual intelligence, analytical thinking skills, and continuous self-development to become knowledgeable individuals who can effectively impart their knowledge to others. They should never stop developing themselves, be open to learning new things, and develop the necessary skills to a level of expertise, preparing for future challenges. Moreover, entrepreneurs should have knowledge of technology, understand it, and learn to solve problems associated with its implementation. They should also be knowledgeable about social media and digital marketing to enhance business opportunities and respond appropriately to current consumer behavior.

Innovative Organization: For the development of the manufacturing industry in small and medium-sized enterprises (SMEs) in Thailand and their evolution into larger businesses, organizational innovation is a crucial factor that enhances the value of SMEs. It enables organizations to be profitable and increases their competitive capabilities. Furthermore, an organization's innovation stems from its employees' creativity and long-cultivated experiences. A key development approach is that SMEs must actively innovate or invent new things, such as new services, products, or work processes, which are valuable and beneficial quickly. Simultaneously, SMEs must continually seek new knowledge, develop it, and share it equitably among employees, fostering collective organizational innovation. If SMEs want to create innovation, it is vital to continuously develop production and service processes to cope efficiently with current changing conditions. At the same time, creativity and innovation in the organization can effectively solve emerging problems, as past problem-solving methods may not be applicable to current situations.

Quantitative research

The results of the analysis of the importance of the components: Approaches to Developing the Manufacturing Industry of Small and Medium Enterprises for Readiness Towards Large Businesses in Thailand as a whole, the overall significance was at a high level ($\bar{x} = 4.01$; S.D.=0.51). All aspects are important at a high level. In order of importance from the most to the least as follows: digital technology was significant at a high level ($\bar{x} = 4.68$; S.D.$= 0.33$), entrepreneurial leadership was at high level ($\bar{x}=4.65$; S.D.$=0.38$), knowledge management was at high level ($\bar{x}=4.64$; S.D.$=0.40$), and innovation organization was very important and at the high level ($\bar{x}=4.50$; S.D.$=0.35$).

The results of the structural equation modeling analysis: Approaches to Developing the Manufacturing Industry of Small and Medium Enterprises for Readiness Towards Large Businesses in Thailand found that the probability of chi-squared (CMIN-ρ) was 0.128, greater than 0.05, indicating that this model did not exist. Statistical significance which was relative chi-squared value (CMIN/DF) was 1.126, was less than 2.00, the GFI was 0.955, was greater than 0.90, and the root mean squared index of error estimation (RMSEA) was 0.955, was greater than 0.90, equal to 0.015, less than 0.08, passes the assessment criteria is consistent with empirical data. as depicted in Figure 2.
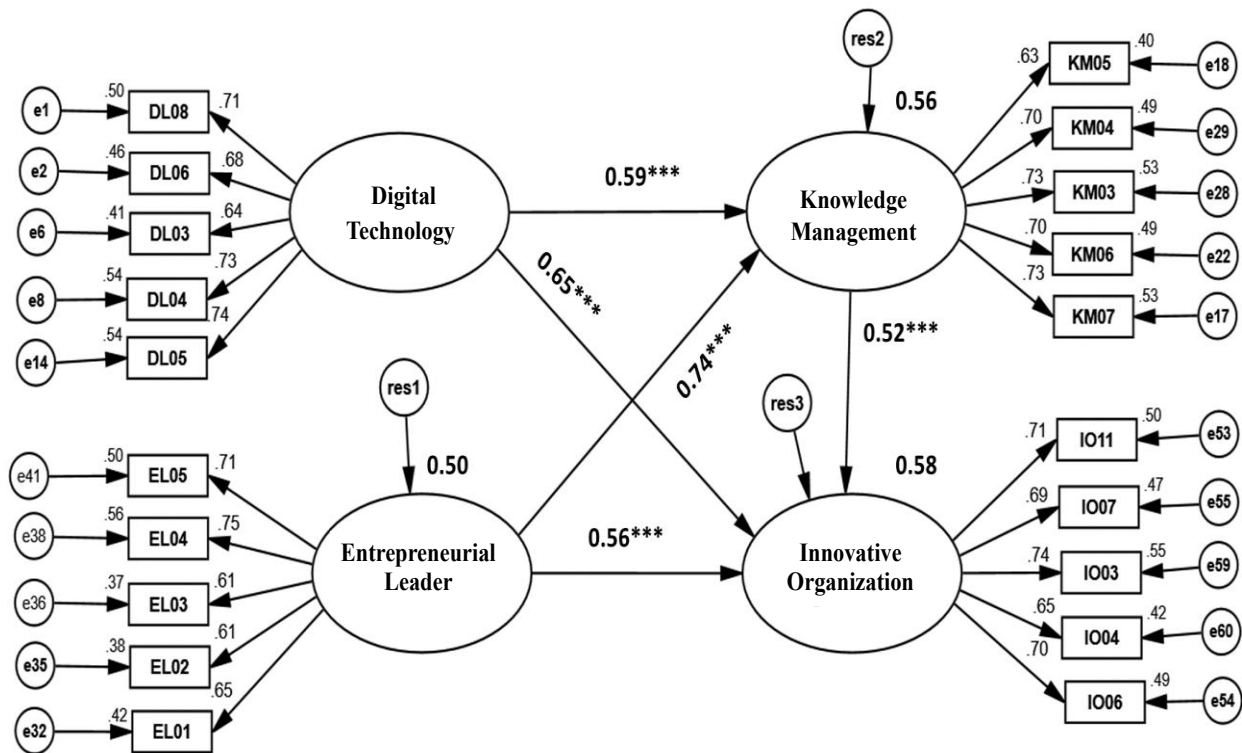
Figure 2 The results of the structural equation modeling analysis
(Source: Researcher, 2023)

Table 3 The results of the structural equation modeling analysis

Evaluating the Data–Model Fit	Criteria	Results
CMIN–p (The chi-square probability level value)	More than 0.05	0.128
CMIN/DF (Relative chi-square value)	Less than 2.00	1.126
GFI (Conformity Index)	More than 0.90	0.955
RMSEA (Root Mean Square Error of Approximation)	Less than 0.08	0.015

Remark: *** Significant Level at 0.001

The results of direct influence analysis: revealed that digital technology had a direct influence on knowledge management (TE=0.59). The digital technology had a direct influence on innovation organization (TE=0.65) and entrepreneur leadership. There was a direct influence on knowledge management (TE=0.74. The entrepreneurial leadership had a direct influence on innovation organization (TE=0.56). The knowledge management had a direct influence on innovation organization (TE=0.56). TE=0.56).

The Results of indirect influence analysis: it was found that digital technology affects innovation organization through knowledge management, (IE=0.31) and entrepreneurial leadership affecting the organization of innovation through knowledge management components, (IE=0.38) shown in Table 4.

Table 4 Analytical statistics of direct and indirect

Latent Variables	Variance (R^2)	Effect	Digital Technology	Entrepreneurial Leader	Knowledge Management
Innovative Organization	0.58	DE	0.65***	0.56***	0.52***
		IE	0.31***	0.38***	0.00***
		TE	0.96***	0.94***	0.52***
Knowledge Management	0.56	DE	0.59***	0.74***	-
		IE	0.00***	0.00***	-
		TE	0.59***	0.74***	-
Entrepreneurial Leader	0.50	DE	-	-	-
		IE	-	-	-
		TE	-	-	-

Remark: *** P < .01, DE=direct effect, IE=indirect effect, TE=total effect

Hypothesis test results

Approaches to Developing the Manufacturing Industry of Small and Medium Enterprises for Readiness Towards Large Businesses in Thailand, 5 hypotheses were found to be in accordance with the assumptions set. The results are shown in Table 5.

Table 5 Hypothesis test results

Hypothesis test results	Test results
H1: Digital technology has a direct influence on knowledge management.	accept
H2: Digital technology has a direct influence on innovative organizations.	accept
H4: Entrepreneurial leadership has a direct influence on knowledge management.	accept
H4: Entrepreneurial leadership has a direct influence on innovative organizations.	accept
H:5 Knowledge management has a direct influence on innovative organizations.	accept

Discussions

The results of H(1) Digital technology had a direct influence on knowledge management: because digital technology supports collaboration among all parties quickly; facilitates communication both internally and externally which helps to spread knowledge in the organization both vertically and horizontally, inside and outside the organization effectively and the use of effective technology combined with good knowledge. The management will increase the efficiency of innovation, resulting in the organization to develop and design a variety of new products. Consistent with the study of Ting et al. (2021), it was found that digital technology is the basis for collecting knowledge from inside and outside the organization to support the entire organizational system. The use of digital technology in the organization creates good operational guidelines that are clear, employees can work smoothly, which leads to organizational innovation (Hoang et. al., 2023).

The results of H(2) Digital technology has a direct influence on innovation organization: because the organization has a policy to encourage and train employees to be creative in order to develop the organization. There is a clear operational procedure that promotes learning and jointly solving various problems that arise in the organization from the executive level to the operational level in order to create a healthy atmosphere that is conducive to work and pays attention to the needs of employees. This is in line with the study of Ardito et al. (2022) about personnel development. The development of digital technology into new forms can be used in practice resulting in the organization having big data and various platforms for the dissemination of information and communication within the organization (Nwankpa et al., 2022). Digital technology is used to change the way of working. The development of production processes to be modern in order to be a strong innovative organization.

The results of H(3) Entrepreneurial leadership has a direct influence on knowledge management: because the organization has leaders with sufficient knowledge of the business environment. Focus on knowledge management and encourage employees to learn continuously. To apply the existing knowledge to help formulate a joint strategy for developing new products and services to be modern. In addition, the organization has stored knowledge

along with the appropriate consulting services for implementation for maximum benefit consistent with the study of Mehmood et al. (2022), it was found that entrepreneurial leadership should be creative. They have the courage to share knowledge with team members to help create organizational innovation together. From the study of Latif et al. (2021), it was found that entrepreneurs have prepared training course plans according to individual aptitudes. They can provide training and develop specific skills for personnel. There is team work. The knowledge is shared to have the ability to adapt, to be ready to deal with future crises and help increase work potential at all levels. According to the study of Shahzadi et al. (2021), entrepreneurial leadership has a role in promoting knowledge management process in the organization so that employees can use knowledge to create success for the organization.

The results of H(4) Entrepreneurial leadership has a directly influenced on innovation organization: because the organization has leaders who can analyze market trends. They understand market volatility and adjust the way of working to effectively accommodate the changes that occur. They listen to opinions and suggestions from employees at all levels. They are empowered to make decisions, to manage work in each department and to achieve the goals as planned. They will be leaders who act on visions and goals. They set an example for employees in the organization and focus on working as a team rather than focusing on individuals. According to research results, entrepreneurial leadership results in organizational innovation. A study by Djalil et al. (2023), found that entrepreneurial leadership must be creative, must know how to take risks, and must have creative solutions at hand. A person with a vision of the future of the business likes the challenge to lead to an innovative organization. A study by Najar & Dhaouadi (2020) found that innovation is a key factor that will add value to business growth or create higher competitiveness. If employees are always seeking new knowledge and sharing the knowledge within the organization, everyone will be participating in an organizational innovation together.

The results of H(5) Knowledge management has a direct influence on innovative organizations: because the organization has stored knowledge from experience. The specific expertise of the personnel is clearly marked with a mentoring system. They transfer work experience to new employees. The suggestions are collected. They will be open to new ideas. As a result, the organization is innovative. They have competitive abilities and help maintain the structure of the organization as a whole. Consistent with the study of Andersson et al. (2023), it was found that entrepreneurs will achieve higher success if knowledge management is consistently put into practice to achieve the discovery of creativity to make the organization competitive. The study of Samie & Jazghani, (2022) found that organizational innovation can occur through knowledge management and knowledge sharing. They solve problems that will arise appropriately. It also helps the organization to survive even when faced with a rapidly changing environment. The organizations that focus on knowledge management will be able to respond to changes that occur in the future as well, helping the organization to manage effectively.

## Conclusion and suggestions

Conclusion

Business strategy for these organizations is creating a product advantage, emphasizing mentorship systems from knowledgeable employees, and key leadership qualities, including treating colleagues with kindness and generosity and developing leadership at various levels focusing on experience, comprehensive knowledge, and business expertise. The results of the analysis of the structural equation model for small and medium-sized enterprises management for sustainable strength found that the model is consistent with the empirical data.

Suggestions for research

1. To guide entrepreneurs to see the importance of each component for Approaches to Developing the Manufacturing Industry of Small and Medium Enterprises for Readiness Towards Large Businesses in Thailand from the results of this research. There are important elements that lead to the creation of sustainable strength, namely: digital technology elements, elements of entrepreneurial leadership, knowledge management components and organizational elements of innovation that are from the research results. All sectors, including government, private and business sectors, should support the development of small and medium-sized enterprises throughout the system, forming a strategic plan for developing small and medium- sized enterprises by integrating cooperation from all departments to create opportunities for highly efficient development. For example, the government sector acknowledges the problem and finds a solution; the private sector participates in the development and the business sector improves the management of small and medium- sized enterprises to meet standards as well as follow- up and do evaluation to build sustainable strength.

2. In addition to this research, factors that create sustainable strength for the organization should be studied to guide the development of small and medium-sized enterprises to have the potential to compete and are ready to adapt to changes that will occur in the future that will lead to sustainability.

3. The conceptual framework from this research should be studied separately according to the size of the business such as small-sized enterprises, medium-sized enterprises and large-sized enterprises in order to obtain suitable research results for each size of enterprise. as shown in Figure 3.
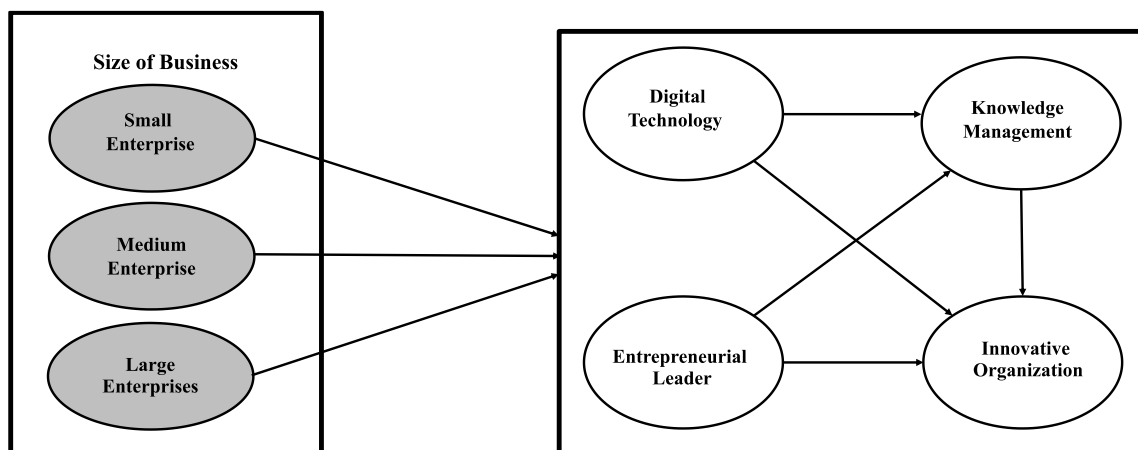
Figure 3 Suggestions for research (Source: Researcher, 2023)

New knowledge and the effects on society and communities

Approaches to Developing the Manufacturing Industry of Small and Medium Enterprises for Readiness Towards Large Businesses in Thailand. Various developments must be made as follows:

1. Automation System: To enable manufacturers to have greater control over operations, which helps increase productivity and reduce costs.

2. Digital Marketing: Implementing digital marketing through various channels accessible anywhere, anytime, 24 hours a day.

3. Branding :Creating a brand that becomes well-known and widely accepted.

4. Distribution: Channels Distribution channels should be a mix of both online and offline.

5.Teamwork: Building a team with expertise in social media.

6. Convenience: Providing quick and efficient services, transportation, or payment processing.

7. Products and Services: Developing products and services to be efficient and distinct from competitors. as depicted in Figure 4.

Figure 4 New finding (Source: Researcher, 2023)

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Critical Leadership of School Administrators Under the Office of Primary and Secondary Education Service Area in Loei Province

Theerapong pakdeesan[*] and Supawadee Lapcharoen

Facullty Education Ramkhamkaeng University, Thailand

E-mail: pakdeesan35@gmail.com* and supawadeela.l@ds.ru.ac.th

*Corresponding author

Abstract

The objective of this research is 1) to study the level of critical leadership of school administrators according to the opinions of teachers under the Office of Primary and Secondary Educational Service Area in Loei Province, and 2) to compare the level of critical leadership of school administrators according to the opinions of teachers under the Primary and Secondary Educational Service Area Office in Loei Province, classified by education, affiliation, and work experience. Which the population includes Teachers under the Primary and Secondary Educational Service Area Office in Loei Province for the academic year 2022 total 3,893 people, and the sample group used in this study was teachers in schools under the Primary and Secondary Educational Service Area Office in Loei Province in the academic year 2022, totaling 354 people. The instrument used in the study was a questionnaire regarding critical leadership characteristics of school administrators, consisting of 40 questions. There is a consistency between the questions and the objective is between $0.60\text{-}1.00$ with the entire confidence value being 0.982. Statistics used in research namely mean, standard deviation, t-test, analysis of one-way variance, and pairwise mean differences were tested using Scheffe's method. Finding were as follows: 1) the Primary and Secondary Educational Service Area Office in Loei Province has a high degree of critical leadership in its overall management of school administrators, when considering each aspect, it was found that it was at a high level in every aspect, arranged from highest to lowest average as follows; cultural diversity, change, empowerment, and ethics, and 2) the findings of comparing teachers' perceptions of the critical leadership of school officials under the Primary and Secondary Educational Service Area Offices in Loei Province, classified by educational level, affiliation, and work experience, are similar in terms of the overall situation as well as income.

Keywords: Critical leadership, Leadership, School administrators

Introduction

Economic experts refer to globalization as the time of global economic consolidation and industrial economic development from the West into other regions, such as Asia, Africa, and Latin America. It is a phenomenon of the contemporary world that marked the beginning of change. The objective is to expand markets and take use of the abundant natural resources in such areas. Following the conclusion of World War II, a neoliberal world built by technology and market power that encouraged individuals to pursue a variety lifestyle, freedom, and fairness awakened the world to the importance of human rights. The conditions of youth culture in the postmodern era are problematic because they are an institutional byproduct of the modern era, according to Chamarik (2006), and they are a result of new world trends that permeate all facets of society, including the world of education where there is a crisis of tension between schools and educational institutions. Such as questioning presumptions, a condition of denial, giving up initial viewpoints on information, traditions, and laws, and the growth of towns and people that led to ethnic and cultural variety. Theorists, like Siwarom (2008), feel that people are making the transition from the modern to the post- modern worlds where access to knowledge and information is more open and available and where individuals are deliberately responding to changes in society and a new order in the global economy. The expansion of multinational corporations that have created technology outside of nation- states has had an impact on people's lives in all aspects, by controlling information and communication power through technology, nation- state borders in terms of information rights, the arts, and culture are no longer protected. Fast- paced technology, which is an uncontrollable external element, is what is driving the current of quick changes in economic and cultural norms, or what may be referred to as the "world in the disruption Word era". However, it also takes into account the passage of time, since it is seen to be a quick shift that causes volatility, also known as risk, instability, and loss of trust, it is also an unpredictable change. National Education Master Law 1999 Section 6, "Education must be in order to develop Thai people to be complete human beings in terms of body, mind, intellect, knowledge and morality, ethics and culture in life. Able to coexist peacefully with others, the National Education Act (1999) which is still in effect today, "concluded that the duty of education is to develop people to be perfect human beings" and to fulfill the parent law's goals for human development. Since 1999, there have been and are still being made in educational reform. Because there are still numerous issues with Thailand educational system that need to be resolved in order to seriously improve education and yield more noticeable outcomes. According Office of the Secretariat of the House of Representatives (2014), the current Thai education reform has altered its aims to keep up with developments over a period of more than 24 years, from the years 1999 to 2023. The objective is for students of all age groups to receive a quality education that satisfies standards by concentrating on improving education management, lowering educational inequality, and reforming the educational system for efficiency. This will support a variety of education management and respond to the development of the future world. Possess the abilities required for the future, including the ability to problem-solve, adapt, communicate, and work well with others. They should also be disciplined, develop a habit of lifelong learning, and be responsible, public-spirited citizens, they should also love and be proud of being Thai. However, according to the National Education Reform Commission (2022), there has been a movement among young people to alter society termed "Bad Students" since 2020, they came out to advocate for human rights in the educational system. As a result of the movement, particularly the

regulations of educational institutions that have not yet been developed, it has evolved into a trend that has spread through the borderless world of communications, sparking a movement to demand human rights in the education system of students in many areas across the nation. (Thammabussadee, 2021)

The executive must carefully monitor the situation and be ready to deal with it in a timely manner. They must also understand the context of the education system, which is related to the political system, economic system, social system, state of oppression, and equality in access to the education system, changes and fluctuations in global situations force schools to adapt from the real world to the world of the education system. The idea of critical leadership studies exposes the power dynamics at play, takes into account how those powers are used, fosters a variety of identities, connections, and conflicts, and paves the way for future organizational growth. (Collison et al., 2008) In order to achieve justice and equity in education, critical leadership must also be able to manage disputes and disparities resulting from variations in culture, ethnicity, and color. (Shah, 2022)

However, crucial modern professional skills like "Critical Thinking" via study of several credible sources are consequently crucial in today's era of leaders. The capacity to use one's intellect to critically evaluate and reevaluate ideas, including those that seem true, in order to develop a new view of a situation that may be preferable to the previous one, is what is meant by critical thinking, according to the definition given above. By Coleman (2000), an investor and writer for Harvard Business Review magazine, he presented a similar definition of critical thinking for modern leaders in the article "Critical Thinking Is About Asking Better Questions": "it is the ability to analyze and dissect different issues, emerge to make decisions and find solutions, and this skill may bring a fresh perspective", pointing out that the heart of critical thinking is the ability to ask questions that "deep and different but effective". However, critical thinking is the capacity to apply logic and reason to see the advantages and disadvantages of various solutions to issues or processes, as well as the capacity to assess the potential of oneself, others, or the organization in order to develop and make adjustments.

From the background and importance of the problem, it made the students interested and wanted to study the critical leadership of school administrators under the Office of Primary and Secondary Educational Service Area in Loei Province. In order to develop quality education and make a society that is fair and equal and leaves no one behind, as per the objectives of Thai education, a guideline for improving and developing the critical leadership of school administrators must be appropriate with the school context, community, society, and country.

Objective

1. To study the level of critical leadership of school administrators according to the opinions of teachers under the Office of Primary and Secondary Educational Service Area in Loei Province.

2. To compare the level of critical leadership of school administrators according to the opinions of teachers under the Primary and Secondary Educational Service Area Office in Loei Province, classified by education, affiliation, and work experience.

Conceptual Framework
  1. Critical Leadership
  Critical leadership, which has its roots in the Frankfurt School, is the study of leadership as seen through the prism of critical theory. Scholars have given definitions of critical leadership, including Gunter (2001) , who described it as open leadership. Release the leadership, maintain an eye on the state of social injustice, and continue the persecution of prevailing power structures. As Lorri J. Santamaría and Andrés P. Santamaría (2014) explain, critical leadership is an educational leader that promotes social justice and educational equality, and Sadi (2002) implies that critical leadership is an ethical standpoint in political, social and cultural movements in the field of education.
  A leader who disengages from leadership, catches up with unjust and oppressive conditions of power structures that would result in social injustice and educational equity is what is meant by critical leadership, to put it briefly. Additionally, a person with an ethical viewpoint on the political, social, and cultural processes occurring in the field of study. Based on the literature review and summary of the understanding of critical leadership, the study authors synthesized the meaning and components of critical leadership according to Ryan (1998), Gunter (2001), Santamaría (2014), Mcinerney (2014), Sadi (2002), Cottrell (2005), David (2022), and Darder (2016). The action of a leader who launches ethical leadership, keeps an eye out for instances of social injustice, and comprehends the oppression brought on by societal institutions where there was an imbalance of power is what is meant by critical leadership, according to this definition. By striving to establish an equitable workplace, acknowledge and comprehend the variety of individuals, uphold individual rights, and be prepared to guide the business toward equitable and fair success, which consists of the following four components;
  Element 1: Ethics refers to being a leader who takes equality and fairness into account when making decisions, emphasizing equality practices, emphasizing work that creates opportunities, and daring to express one's own position to protect justice and people's rights, goes against laws that define unfair treatment.
  Element 2: Strength it entails being a leader who recognizes how power relationships develop as a result of interpersonal interactions within a hierarchical structure, is deliberate with how power is used, does so in a positive way, and cultivates relationships with those in the organization so that horizontal power can be used to lessen oppression there.
  Element 3: Cultural diversity means being a leader who respects the diversity of people, races, ideas, beliefs, gender, language, and skin color, views these differences as a normal social basis, does not deny them access to opportunities, opens learning across cultures, and fosters equality in all respects.
  Element 4: Change-agent leadership entails being accessible, democratic, and inclusive of all team members in decision-making processes, it also involves supporting the development of the team's potential and being consistently prepared for unexpected events.

Methodology

This study is survey research aimed at studying the level of critical leadership of school administrators according to teachers' opinions, and to compare the level of critical leadership of school administrators under the Office of Primary and Secondary Educational Service Area in Loei Province.

1. Population and Sample

1.1 The population is 3,747 teachers under the Office of Primary and Secondary Education Service Area in Loei Province in the academic year 2022.

1.2 The sample group was teachers under the Office of Primary and Secondary Education Service Area in Loei Province in the academic year 2022, the sample size was set at the statistical significance level of .05 from Cohen, Manion & Morrison (2011) open table, the sample group was 354 people. By using the sampling method of rule of three in arithmetic sampling as shown in table 1.

Table 1 Compare the rule of three in arithmetic sampling

Affiliation	Population (people)	Sample group (people)
Loei Primary Educational Service Area Office 1	1,096	105
Loei Primary Educational Service Area Office 2	1,114	103
Loei Primary Educational Service Area Office 3	426	43
Loei Secondary Educational Service Area Office, Nong Bua Lam Phu (Loei Province only)	1,111	103
Total	3,747	354

Source: Office of the Basic Education Commission Information System Ministry of Education as of January 9, 2023

2. Tools used to Collect Data

A questionnaire regarding the crucial leadership of school administrators who work for the Primary and Secondary Educational Service Area Office in the province of Loei served as the research's main tool, it is split into the following two sections.

Part 1: Inquiring about the status of respondent teachers

Part 2: Finding out the degree of critical leadership exhibited by school administrators working for the Loei Province's Office of Primary and Secondary Educational Service Area. It is a critical leadership questionnaire in four areas; ethics, empowerment, cultural diversity, and change, a total of 40 questions, with a confidence value of the whole paper equal to .982.

However, fidelity is further divided into content fidelity (assess content totally in accordance with the curriculum and objectives), and validity is the quality of the tool that measures what it intends to assess, as well as concept validity (the ability to assess whether behavior and performance across a range of domains is consistent with the stated goals). Included among these is dependability or accuracy, a feature of an instrument that demonstrates that the instrument consistently produces reliable, steady results of measurements, regardless of how frequently it is used.

3. Data Analysis

3. 1 Analyze the basic characteristics of the respondents' teachers, such as their educational background, professional affiliation, and employment history, using frequency distribution and percentage values.

3.2 Find the mean ($\overline{X}$) and standard deviation (S.D.) as a whole, side by side, and by item to analyze the degree of leadership, critical leadership, of school administrators under the Office of Primary and Secondary Educational Service Area in Loei Province.

3.3 The Office of Primary and Secondary Education Service Area in Loei Province categorized the data by educational level and affiliation, and then used a word (t - test) independent type analysis to compare teachers' opinions about the degree of critical leadership of school administrators.

3. 4 Using one- way analysis of variance, data were compared between teachers' perceptions of the degree of critical leadership exhibited by school administrators within the Office of Primary and Secondary Educational Service Area in Loei Province, classified by experience (ANOVA one-way).

Results

The results of the study on the level of teachers' opinions toward the critical leadership of school administrators under the Office of Primary and Secondary Education Service Area in Loei Province, found that the critical leadership of school administrators under the jurisdiction of primary and secondary education service area offices, the overall level was at a high level ($\overline{X}$ = 4.19). In descending order of average as follows; cultural diversity ($\overline{X}$ = 4.25) change ($\overline{X}$ = 4.22) power ($\overline{X}$ = 4.16) and ethics ($\overline{X}$ = 4.14), the details are shown in table 2.

Table 2 Results of a study of teachers' opinions towards critical leadership of School Administrators under the Office of Primary and Secondary Educational Service Area in Loei Province

Critical Leadership of School Administrators	Leadership Level		
	$\overline{X}$	*SD*	**Level**
1. Ethics	4.14	0.59	a lot
2. Power	4.16	0.58	a lot
3. Cultural Diversity	4.25	0.53	a lot
4. Change	4.22	0.57	a lot
Total	**4.19**	**0.52**	**a lot**

The findings of the study on the level of teachers' attitudes about the "Different Levels of Education" of school administrators conducted by the Primary and Secondary Educational Service Area Office in Loei Province, the critical management of school administrators under the Primary and Secondary Educational Service Area Offices in Loei Province as a whole was found to be seen differently by teachers at various educational levels, the details are shown in table 3.

Table 3 Results of comparative analysis of teachers' opinions on critical leadership of Educational School Administrators under the Office of Primary and Secondary Educational Service Area in Loei Province, classified by education level, overall and side by side

Critical Leadership of School Administrators	Education Level				*t*	Sig.
	Bachelor's degree (n = 261)		Postgraduate (n = 93)			
	$\bar{x}$	SD	$\bar{x}$	SD		
1. Ethics	4.15	0.58	4.13	0.64	0.168	0.867
2. Power	4.17	0.57	4.13	0.62	0.464	0.643
3. Cultural Diversity	4.25	0.52	4.26	0.56	-0.134	0.893
4. Change	4.23	0.55	4.20	0.62	0.402	0.688
Total	**4.20**	**0.52**	**4.18**	**0.55**	**0.253**	**0.801**

The findings of a survey of teachers from various affiliations about their perceptions of the critical management of school administrators under the supervision of the Primary and Secondary Educational Service Area in Loei Province, found that instructors with "Different affiliations" had viewpoints on the vital management of educational institution administrators that were consistent overall, and in every element, the details are shown in table 4.

Table 4 Results of comparative analysis of teachers' opinions on critical leadership of School Administrators under the Office of Primary and Secondary Educational Service Area in Loei Province, classified by affiliation overall and by aspect

Critical Leadership of School Administrators	Affiliation				*t*	Sig.
	Primary Educational Service Area Office (PEASO) (n =250)		Secondary Educational Service Area (SESAO) (n = 104)			
	$\bar{x}$	SD	$\bar{x}$	SD		
1. Ethics	4.13	0.60	4.18	0.59	-0.815	0.415
2. Power	4.15	0.58	4.19	0.59	-0.561	0.575
3. Cultural Diversity	4.25	0.53	4.26	0.54	-0.169	0.866
4. Change	4.24	0.56	4.18	0.59	0.861	0.390
Total	**4.19**	**0.52**	**4.20**	**0.54**	**-0.197**	**0.844**

The findings of a survey of the opinions of teachers with various levels of experience about the crucial direction given by school administrators by the Primary and Secondary Educational Service Area in Loei Province. It was discovered that instructors with "Different work experiences" had judgments on the critical management of school administrators under the Primary and Secondary Educational Service Area in Loei Province, both generally and in each region, that were not dissimilar, the details are shown in table 5.

Table 5 Results of comparative analysis of teachers' opinions on critical leadership of School Administrators under the Office of Primary and Secondary Education Service Areas in Loei Province, classified by work experience, overall and side by side

Critical Leadership of School Administrators	Work Experience			F	Sig.
	less than 5 years (n=123)	between 5-10 years (n=133)	more than 10 years (n=98)		
	$\bar{X}$	$\bar{X}$	$\bar{X}$		
1. Ethics	4.15	4.20	4.06	1.544	0.215
2. Power	4.16	4.22	4.07	1.813	0.165
3. Cultural Diversity	4.21	4.31	4.22	1.387	0.251
4. Change	4.19	4.29	4.18	1.516	0.221
Total	4.18	4.26	4.13	1.676	0.189

Discussions

The study titled "Critical Leadership of School Administrators Under the Office of Primary and Secondary Education Service Area in Loei Province" has important points brought into discussion of the findings as follows;

1. Critical leadership of school administrators under the primary and secondary educational service area office in Loei Province, overall, was at a high level. They are arranged in descending order of mean as follows; cultural diversity, change, power, and ethics. The findings of the study "The Effect of School Principals' Critical Leadership Behaviors on School Climate According to Teacher Perceptions" agreed with Ismail Eray et al. (2022) findings that critical leadership was highly valued from the viewpoint of teachers. The findings of a study on critical leadership from the perspective of primary and secondary teachers in the Uskudar District of Istanbul Province revealed that it was at a high level, which is consistent with Mertet al. (2021) research on roles and critical leadership styles and school performance. According to Cenk Aygun (2018), critical leadership from a teacher's perspective was determined to be at a high level in research named the link between critical leadership style and leadership practices. This might be the case given that school administrators working for the Loei Province's Office of Primary and Secondary Educational Service Area have demonstrated leadership traits such as unleashing ethical leadership, pursuing immoral situations, and comprehending the oppression brought on by social structures that create unequal power relations. With the goal of establishing an equitable workplace, one that respects individual rights, acknowledges diversity, and is prepared to guide the business toward advancement via equality and justice.

2. The Office of Primary and Secondary Educational Service Area in Loei Province compared teachers' perspectives on the crucial leadership of school administrators, categorized by educational attainment, professional experience, and school size, and discovered that;

2.1 Teachers with different educational levels, had opinions on the critical leadership of school administrators under the Office of Primary and Secondary Educational Service Area in Loei Province, considering each aspect. In terms of power, cultural diversity, and change, no differences were found. With the exception of ethics, statistical significance is different .05, but generally they were not different and went against the theory. According to

research by Pınar Mert, Parlar and Zgenel (2021) and Cenk Aygun (2018), a study of teachers at various educational levels' perceptions on critical leadership was conducted. The critical leadership survey's overall findings are comparable.

2.2 Teachers with varied affiliations had judgments about the Office of Primary and Secondary Educational Service Area in Loei Province critical leadership of school administrators, but these opinions were consistent with the presumptions made in each case. However, a study of teachers' perceptions of critical leadership at school was at a different level in accordance with research by Ismail Eray Dursun, Baran Baris, Serkan Yuksel (2022), Mert, Parlar and Zgenel (2021), and Cenk Aygun (2018). The critical leadership survey's findings were similar in general.

2.3 In contrast to the presumptions made, teachers with varied work histories had attitudes about the important leadership of school administrators under the Office of Primary and Secondary Educational Service Area in Loei Province that were consistent both overall and in each area. According to the research of Ismail Eray Dursun, Baran Baris, Serkan Yuksel (2022), Mert, Parlar and Zgenel (2021), and Cenk Aygun (2018), perceived critical leadership surveys of instructors with various degrees of work experience produced results that were broadly comparable.

The overall practice will be in accordance with the professional ethics of school administrators by virtue of their expressive behavior and critical leadership; specifically, school administrators must love, be kind, attentive, helping, and encouraging to disciples and service recipients in accordance with their roles and duties. Administrators of educational institutions must actively and really, vocally and mentally, encourage students and service users to gain the skills and good habits that are appropriate for their positions. Administrators of educational institutions are required to act in a manner that promotes the physical, intellectual, mental, emotional, and social growth of students and service recipients. They must also offer services with honesty and equality, without requesting or accepting benefits in return for abusing their power. In terms of ethics toward their professional colleagues, school administrators should support one another in a positive way by abiding by the moral code to foster faculty cohesion, spark administration creativity, achieve development in all facets of co-practitioners' professions, and promote and protect co-practitioners' rights. Take the lead in change and development, use an ethical system to consider the work of fellow practitioners, and accept the opinions and suggestions of fellow practitioners. (The regulations of the Teachers Council of Thailand on professional ethics, 2013)

In this regard, policy implementation from the educational reform guidelines, in accordance with the reform guidelines of the National Reform Commission on Education, focuses on raising the quality of education, reducing educational inequality, and reforming the education system to be more efficient, capable of supporting a variety of education management, and meeting the needs of the development of the future world, with the goal of providing students of all ages to receive quality education. Possess the abilities required for the future, including problem-solving, adaptability, effective communication and teamwork, discipline, lifelong pursuit of continuous learning, and citizens who are aware of their rights and obligations. They should also love and be proud to be Thai. (Revised national education reform plan, 2021) Including the social movement of high school students in Thailand in 2016 (bad students) in the year 2020 to claim rights and freedoms in the education system through the process "Tear down stories". (Thammabussadee, 2021) The "bad students" has been instrumental in furthering equitable educational practices in various ways, including via representational work on bills to safeguard students' rights and the advancement of gender diversity rights. Monitoring the demands of the bad student organizations, monitoring the

issues that were brought up by students all throughout the nation, challenging the authority of the state in social movements, and bringing attention to the basic rights of students. The Ministry of Education made measures to address issues by opening a center for care and aid to students who have been mistreated in light of the current state of the human rights movement. The Ministry of Education has published new laws, which went into effect on March 30, 2020. An agency inside the Ministry of Education is in charge of handling school violence, including taking legal action against teachers and other educational staff who commit the crime. (Kranjariyawet, 2021)

Conclusion and suggestions

Despite disparities in education, job placement, or work experience, the overall results from comparative research of critical leadership as a whole and in a specific field were not different, probably because of policy guidelines. Right now, the emphasis is on encouraging equity and justice in educational administration. Emphasizing the need for educational administrators to manage education in line with Thailand unique social and cultural environment, honoring the inclusive culture, and establishing a community of teaching professionals. Since the National Education Act of 1999 was passed, these are the policies that have been used to reform and guide education. The contemporary globalization, which makes people aware of human rights, as well as shifts in followers' and leaders' conceptions, have made it necessary to combat injustice and inequality through a range of campaign actions. The Ministry of Education should Primary and Secondary Schools all over the nation are part of the Office of the Basic Education Commission, which has worked hard to develop policies that support fairness and equality for teachers and students inside of schools and jointly develop education to be comparable to that of the rest of the world.

In this regard, in this research recommendation, the researcher presents the following details;

1. Suggestions for applying the research results

1. 1 Ethic: school administrators with ethically conscious leadership may serve as leaders, taking into account justice and equality in administration, putting focus on work that fosters possibilities for people to have, and the courage to stand up for justice and human rights, oppose laws that mandate unequal treatment, and advocate for measures that will make schools equitable and improve education without leaving anybody behind.

1. 2 Power: school administrators who possess crucial leadership skills and the ability to empower others can act as leaders in the connections of power structures created by interpersonal interactions within a hierarchical framework. Build relationships with individuals within the organization to achieve horizontal power, reduce oppression within the organization, and make the school a creative organization where the working environment is conducive to the self-development of teachers and students, this will prevent conflicts in schools.

1. 3 Cultural Diversity: school administrators who possess a multicultural critical leadership style can operate as role models who value differences among individuals, particularly those related to ethnicity, ideology, faith, gender, language, and skin color. Consider these distinctions as a typical social foundation. does not restrict access to opportunities, allows for cross-cultural learning, and fosters equality in all respects, resulting in the development of a vibrant multicultural society. The freedom to express one's cultural

values by both teachers and students fosters effective management and the growth of a multicultural education system.

1.4 Change: school administrators that are capable of acting in a leadership role where the leadership is open, democratic, allows members of the organization to engage in policy making, and supports growth based on the potential of the team are essential leaders in change. Being always ready to accept the changing circumstances, the school will become an organization that is prepared to accept changes as a working society that prioritizes participation, being able to adapt to conditions efficiently, and is a location to create high-caliber human resources for the nation.

2. Suggestions for further research

2. 1 The Office of Primary and Secondary Education Service Areas should be considered in a larger context with regard to critical leadership of school administrators.

2.2 A study of the trends and elements of the challenging circumstances of school administrators that influence the efficacy of institutions under the Office of Primary and Secondary Educational Service Area in Loei Province is necessary.

2.3 It is important to research and build a critical leadership paradigm for school administrators.

2.4 Descriptive questionnaires and further in-depth interviews on relevant topics should be used in critical leadership studies.

New knowledge and the effects on society and communities

The need for the school to adapt is brought on by changes to the educational system and shifts in the global situation. To do this, administrators must gradually keep an eye on the situation, be ready to deal with it when it arises, and comprehend how it relates to political, economic, social, oppressive conditions, and equal access to education. The results of this study give rise to the idea of critical leadership studies, which examine power dynamics, take into account how power is used, foster the development of multiple identities, connections, and conflicts, and aid in the future development of an organization. In order to achieve justice and equity in education, critical leadership will also include leadership that can settle disputes and disparities resulting from differences in culture, ethnicity, religion, language, gender, and skin color. As well as obtaining guidelines for enhancing and developing school administrators' critical leadership to be appropriate for the context of the school, community, society, and the nation, to develop quality education and create a society that is fair and equal and leaves no one behind in line with the objectives of Thai education.

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08

Factors Affecting Consumers in Making Decisions in Using Robinhood for Food Delivery in Bangkok

**Thanakon Ratchatakulpat, Thanaphon Ratchatakulpat [*],
Gumporn Supasettaysa and Maneerat Ratchatakulpat**
Business Administration Program in Marketing ,Faculty of Business Administration,
Rajamangala University of Technology Phra Nakhon, Thailand
E-mail: thanakon.r@rmutp.ac.th, thanaphon.r@rmutp.ac.th[*], gumporn.s@rmutp.ac.th
and maneerat.r@rmutp.ac.th
[*]Corresponding author

Abstract

The research purpose to study factors affecting consumers in making decisions in using Robinhood for food delivery in Bangkok.   By study in factor related and those factors are customer service, quick response, price and characteristics of service provider. Those factors are necessary to study for the need of consumers in making decisions in using Robinhood for food delivery regarding to the selection of service provider. The population samples were the consumer who use Robinhood for food delivery in Bangkok. The selection of sample based on a convenient sampling technique for 400 samples. Questionnaires were used to collect data. Statistic used in data analysis method were percentage, average data, standard deviation. Moreover, testing relationship between independent viable and dependent viable that have multiple independent viable were used by multiple regression technique. Research findings revealed that overall results of factors affecting consumers in making decisions in using Robinhood for food delivery in Bangkok were in high rates. The data of research results, in descending order, revealed that customer service, price, quick response and characteristics of service provider factors affecting consumers in making decisions in using Robinhood for food delivery in Bangkok. Those affected factors had statistically significant at level .05. This research findings were accepted all the research hypothesis that customer service, quick response, price and characteristics of service provider factors affecting consumers in making decisions in using Robinhood for food delivery in Bangkok.

Keywords: Decision making, Affecting factors, Robinhood, Food delivery, Bangkok

Introduction

   Restaurant business in Thailand consider to be a strong and widespread important business. It is large and highly competitive. It can be said that it has always helped drive the country's economy sustainably according to Kasikorn Research Center Estimated food business market value in 2018 is at 411,000-415,000 million baht, these have increase of 4-5 percent from 2017. The expansion is partly a result of cost drivers, especially space rentals in potential locations and labor costs. Those resulting in restaurant operators having to set high food prices to cover their costs. At the same time, it is another reason why entrepreneurs have to adapt to the consumer market as they want convenience and more variety. Those also creates new companies to meet additional market demands such as Line Man, Grab Food, Food Panda. Food delivery service providers in the form of a third party or even the entry of Eatigo platform, an online restaurant booking platform that connects customers and restaurants through the use of discounts as an incentive for customers. These companies use technology as a link between entrepreneurs and consumers which is considered an easy and convenient channel. Entrepreneurs can expand sales channels and It is also beneficial for consumers. (Bltbangkok, 2018).

   However, in the past, the expansion of online food delivery services has gradually increased but the emergence of the COVID-19 situation in 2020. These caused restaurant operators to adjust their service methods in the form of delivery. By providing the ability to order food through various applications to expand sales channels. It is a service in line with the spread of the corona virus 2019 and under the announcement of government policy Jermwarayakorn et al. (2022). This situation has become a "catalyst" for Food Delivery, both the restaurant's own channel and the Food Aggregator, to grow rapidly and that trend continues today. Food Delivery is already a part of people's way of life. Especially in big cities around the world and most importantly, there are many restaurant business landscapes have changed because the restaurant business model from now on, it does not rely on any one form of service or any one channel only. Rather than it needs to diversify the risk and generate income from four main legs: 1) Income from Dine-in service or dine-in service 2) Income from Take Away or take-out service 3) Income from the Grab and Go model by developing products to meet the needs with easy, convenient, fast purchases 4) Income from the Food Delivery service, whether it's the restaurant's own channel/platform or willing to pay Gross Profit (GP) to the Food Aggregator platform in order to use their service. This would make the restaurant have a wider customer base and increase sales opportunities (Brandbuffer, 2021) . However, small and medium-sized restaurant businesses face difficulties in deciding which food delivery provider to choose due to limited business resources. Causing to choose only one service provider. Those criteria for consideration are customer service, price, quick response and characteristics of service provider (Brandbuffer, 2021).

   For Thailand, Food Delivery is currently in the same direction around the world, that is growing rapidly. Both users and service provider could consist into the main groups which are 1) Major restaurant chains such as Minor Food Group, CRG (CRG), create their own delivery service channels in conjunction with the Food Aggregator. 2) Platform Food Aggregator

platform that includes four major tech companies from abroad, namely Grab, Gojek, LINE MAN, Food Panda and Thai startups with Delivery Platform. 3) Group of Bank Developing platforms to meet the needs of both restaurant businesses and users for example, the SCB group developed the Robinhood platform, highlighting no or very GP and KBTG from Kasikorn bank subsidiary, launched Eatable with a complete food ordering service including Dine-in and Dine-out. Delivery delivers the value of the Food Delivery market in Thailand to be the Sunrise market that grows every year (Brandbuffer, 2021).

At the same time, the growth of Food Delivery affects the change in the design of the store as well, such as 1) Adjusting the interior space of the original restaurant by expanding the "kitchen area" larger, with some restaurants reducing the number of seats in the store along with allocating the proportion of food waiting area. 2) Open a smaller shop mainly focusing on food delivery and take away services. 3) Restaurants and some restaurant chains open cloud kitchen to support delivery specially to expand delivery radius to cover more areas. Robin Hood would be the starting point to help small restaurant, restaurant chains, customers and drivers to create a healthy and sustainable ecosystem. Its mission is to be a Thai food delivery platform that creates fairness. No gross profit or GP deduction for small restaurants and sign up for free with no extra charge. The shop owner gets money fast within 1 hour including increasing the opportunity to access credit for working capital.

With all above consideration of Thai Restaurant business are first they are large and highly competitive and important business. Second, restaurant operators have to set high food prices to cover their costs and have to adapt to the consumer market as they want convenience and more variety. This have effect consumer would have to paid higher for their food or pay the same but less quantity or quality of food. Third, Food Delivery in Thailand is currently in the same direction around the world that is growing rapidly due to the COVID situation and consumer behaviors change. Fourth, food delivery by Robin Hood would be the starting point to help small restaurant, restaurant chains, customers and drivers to create a healthy and fairness with and no gross profit or low GP deduction for small restaurants. Other food delivery in Thailand are high cost for Thai small restaurant as deduction for service is high up to 30 to 40 percent of GP.

The importance and problems that consumers in Bangkok had the same behavior in ordering and consuming food until the COVID-19 outbreak occurred Food ordering and consumption behavior has changed dramatically with the use of technology to facilitate and create distribution channels that quickly reach new generations of consumers.

Therefore, it is interesting to study the factors that affect consumers' decision to use Robin Hood's food delivery service in Bangkok to understand the factors in choosing the service and the real needs of target customers. In order to contribute to strategic planning that will help increase performance and the process of delivering products to consumers quickly according to the needs of customers. This will lead to increase competitive advantage and become more competitiveness in the business.

Research Objective

Examine factors affecting consumers in making decisions in using robinhood for food delivery in bangkok. With consideration that Robinhood's food delivery service is within the business network of Siam Commercial Bank, a bank. That sets the vision to become a leader in digital marketing before other banks in Thailand.

Frame work
Independent variables   Dependent variables
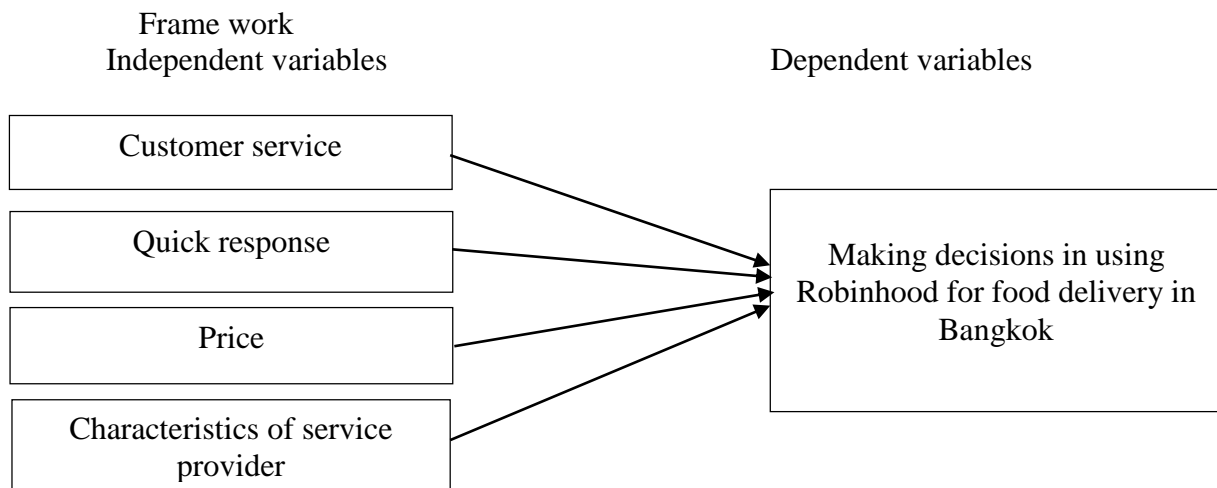
Figure 1 Conceptual framework

Research hypothesis

Hypothesis 1: Customer service affects consumers' decision to use Robin Hood's food delivery service in Bangkok.

Hypothesis 2: Quick response affects consumers' decision to use Robin Hood's food delivery service in Bangkok.

Hypothesis 3 Price affects consumers' decision to use Robin Hood's food delivery service in Bangkok.

Hypothesis 4: Characteristics of service provider affect consumers' decision to use Robin Hood's food delivery service in Bangkok.

Related concepts and theories include customer service, quick response price, characteristics of service providers, and decision-making of consumer who are the restaurant customers. Nawarat (2014) stated that service refers to an activity or set of activities that are generally intangible. This usually happens when dealing with a customer and a service employee. These refer to tangible resources or goods or the service provider's system which solves the problem for the customer. As for Sereerat & Hirankitti (2017) said that quick response means being flexible in responding to customer needs, whether offering new products and product update or even management decisions. Many executives in today's business know cost leadership or offering a unique product is not enough. They also want to respond quickly to the needs of their customers. Slower response than competitors may cause customers to turn to

other alternatives with quicker response. In addition to the price, Serirat et al. (2017) said price is the amount of money or other things that is necessary to pay to get the product or refers to the value of the product in terms of money. Price is the cost of customers, consumers will compare between the value of the product and the price before making a purchase decision if the value of the product is higher than the price. Therefore, pricing must consider the value of the product, the cost of goods, market competition and other factors related. As for organizational characteristics, Bangmo (2019) pointed out that organizational characteristics are characteristics of giving importance to work values and encourage members in the organization to interact between personnel among themselves. In order to dare to think and dare to work together more and result in employees working to achieve the objectives of the work. Satisfaction of personnel who want to achieve the job objectives as well as the satisfaction of personnel who accomplish the work done. These also make good relations between employees. The basic characteristics of creative organizations can be divided into 4 dimensions that are success-oriented, focus on oneself, focus on the person, focus on goodwill. Kotler et al. (2017) explain that consumer purchasing decision is the choice of other products or services. From the various options available, there are 3 levels of consumer purchasing decisions that are decision-making according to their habits, limited decision making and extensive decision-making. The consumer purchasing decision process can be considered in five stages, starting from the events before the actual purchase to the events after the purchase, which are problem recognition, information search, evaluation of alternatives, purchase decision and post purchase behavior.

Methodology

This research is a quantitative study that aims to study the extent of the decision to choose food delivery services from this brand platform in Bangkok only, which may not be representative of consumers in Thailand. The sample is the consumers who use Robin Hood for food delivery ordering their food from restaurant in Bangkok and the method of sampling is by convenient sampling method. Due to the population is unknown for Robin Hood delivers food in Bangkok. Therefore, the sample size can be calculated from the unknown sample size formula of W.G. Cochran, which determines the confidence level of 95% and the error level of 5% (Wanitchbuncha, 2006, p.74). This result sample size is 384. Therefore, the researcher collected 400 samples to prevent errors that may arise from the collection of questionnaires.

Content Scope derived from searching for ideas theories and related research in the following areas are customer service, quick response, price, characteristics of service provider and decision making. The research tool use questionnaire to collect information which are the questions about the factors affecting consumers' decision to use Robin Hood's food delivery service in Bangkok. The questionnaire is consisting of questions divided into three parts. Those components with general information of respondents, information on factors affecting consumers in making decisions and information on the decision to use Robin Hood's food delivery service in Bangkok.

Research tools, Questionnaires consists 3 parts; general information of respondents, information on factors affecting consumers in making decisions and information on the decision to use Robin Hood's food delivery service in Bangkok which are appropriated and

covered a wide range with this research. Data analysis, multiple regression which is analyze all of independent and dependent variables. Moreover. data analysis was the dependent variable in the decision-making aspect of using Robin Hood, a food delivery service in Bangkok. The analysis was performed to test the correlation in the nature of the interaction between several independent variables such as customer service. Fast response, pricing and organizational nature of service providers. The measure of rationality and one dependent variable was the decision to use Robin Hood food delivery service in Bangkok which uses a measure of perimeter and to test the difference that each such independent variable had with the dependent variable. Therefore, the statistics used are multiple regression analysis is appropriate for data annalysis (Siljaru, 2020). The research had conducted the data validation and reliability on the research questionnaire by use IOC and try out technique.

Results

The study concluded that most of the respondents were male 279 representing 69.80 percent and were female 121 representing 30.20 percent. Most of the age 18-29 years old 233 representing 58.30 percent, followed by age 30-39 years old 109 representing 27 percent. Most of them have lower than bachelor's degree 226 representing 56.50 percent, followed by a bachelor's degree 86 representing 21.50 percent. Most of the status were single 256 representing 64 percent, followed by marriage 133 representing 33.30 percent. Most of the average monthly income had an average income below 15,000 baht 229 representing 57.30 percent, followed by down from 15,000 to 30,000-baht102 representing 25.50 percent.

Tabel 1 Factors Affecting Consumers in Making Decisions

Factors Affecting Consumers in Making Decisions	Mean	Standard diviation	Meaning
1. Customer service	3.99	1.06	High
2. Quick response	3.95	1.02	High
3. Price	3.96	0.98	High
4. Characteristics of service providers	4.00	0.96	High
5. Making Decision	4.10	0.98	High

The objective results can be summarized as follows. 1) Overall opinion of customer service at a high agreeing level and when considering the customer service individually. It was found that the respondents had the most agreement on the logistics service provider has a brand name used in the service, service-minded and logistics service providers on-time transport logistics carriers and the least agree is that logistics service providers provide services that facilitate after sales service and enthusiastic service. 2) Overall feedback on quick response. at a high agreeing level Considering the quick response individually, it was found that respondents most agreed that logistics service providers are convenient and easy to answer to service users. Logistics service providers deliver products accurately and quickly and try to

develop technology to speed up accordingly. The least agree is that the logistics service provider delivers the product when you need it. 3) Overall opinion on price at high agreeing level when considering the price individually. It was found that the respondents agreed the most that logistics service providers have pricing strategies in response to stimuli or stimulate logistics service providers to have reasonable prices. Set a high price must have your specific treasures. The less agreeing part is that if the logistics service provider has a price that is too high, it may affect the decision to use the service. 4) The overall opinion towards the characteristics of service providers at the highest level of agreement. When considering its by item, it was found that the respondents agreed the most is the logistics service provider organization was open, sincere and friendly. Customer feel warm and comfortable using the service with logistics service providers. The nature of the logistics service provider organization has a clear division of duties of each department. Characteristics of logistics service provider organizations have values that most of them accept. As for the smallest opinion, the logistics service provider organization has a proper segregation of duties. 5) The overall opinion towards the decision to choose a logistics service provider at the highest level of agreement. When considering the decision to choose a logistics service provider by item, it was found that the respondents had the opinions at the highest level that Before deciding to choose a logistics service provider, you will find information. You will most likely decide to continue choosing a logistics provider if you are satisfied with the service. You will often decide on a logistics provider after carefully evaluating the options. Consider the credibility of the product's brand or image, bring the experience gained from providing services to others, consider the attitudes of others towards your decision making especially those around you. The least opinion is consumer will always be evaluating their options before making decision.

Tabel 2 Hypothesis

Hypothesis	Result
H1: Customer service affects consumers' decision to use Robin Hood's food delivery service in Bangkok.	Accepted
H2: Quick response affects consumers' decision to use Robin Hood's food delivery service in Bangkok.	Accepted
H3: Price affects consumers' decision to use Robin Hood's food delivery service in Bangkok.	Accepted
H4: Characteristics of service provider affect consumers' decision to use Robin Hood's food delivery service in Bangkok.	Accepted

From the research, the results are consistent with the 4 assumptions that are H1) Customer service affects consumers' decision to use Robin Hood's food delivery service in Bangkok. H2) Quick response affects consumers' decision to use Robin Hood's food delivery service in Bangkok. H3) Price affects consumers' decision to use Robin Hood's food delivery service in Bangkok. H4): Characteristics of service provider affect consumers' decision to use Robin Hood's food delivery service in Bangkok.

Discussions

The factors affecting consumers' decision to use Robin Hood's overall food delivery service in Bangkok were at a high level. These is consisting of factors customer service. quick response, price, charteristic of the service provider. When considering each aspect, it was found that all aspects were at the high level. The averages could be ordered in descending order as follows, characteristics of service provider, customer service, pricing, and quick response. This may be because Robin Hood is a food logistics service which provided by Siam Commercial Bank. This has the characteristics of an organization that is transparent, open, sincere, and organized in service. Customers feel warm and comfortable with using services that are stable, accepted and have good values in the organization, Values that businesses and consumers or people accept as an organization with good service standards. By not charging service fees to entrepreneurs who have their SCB bank accounts for food delivery services, it helps reduce the cost of doing business and can create more competitive opportunities in the food business. In addition, the payment system for goods and services is completely cashless, so payments can be made to food operators who use Robin Hood's courier services as quickly as 24 hours.

Deciding to use Robin Hood's service for logistics. Overall, it was at a high level. When considering the decision to select each aspect, the average can be ordered in descending order as follows. Before deciding to choose a logistics service provider, you will find information. Will decide to choose a logistics service provider in the event that they are satisfied with the service. Always decide on a carrier logistics after carefully evaluating the options. Consider the credibility of the product's brand or image. Bring the experience gained from providing services to others. Consider other people's attitudes toward decisions especially your target customers. Options are often evaluated before making decision and will decide to choose a logistics service provider next time if you are satisfied with the service. The consumer decides to choose Robin Hood and most of them have to find information on decisions and consider the satisfaction of the service with the reliable image, which Robin Hood can respond to those things as well. Not charged gross profit or GP, If entrepreneurs find information then most will choose to use the service because it reduces the cost of doing business and Robin Hood has a satisfactory service standard, especially finances that can be handled for entrepreneurs within 24 hours. This reduces transportation costs and can increase the amount of food or services for customers to compete better, including the image of Robin Hood's credibility, which is accepted because it belongs to the Siam Commercial Bank.

Customer service affects the decision to use Robin Hood's food delivery service in Bangkok at a statistical significance of 0.05 which it consistent with the hypothesis. This is because logistics service providers have a service mind, desire for service recipients to be satisfied and happy. Moreover, the logistics service provider has a brand mark used in the service so that the service recipient is easy to remember and it has meaningful. these would affect the decision to use Robin Hood's food delivery service in Bangkok, which Nawaratna Na Ayutthaya (2014) said that activities or sets of activities that are generally intangible. This usually occurs when dealing with the customer and the service provider's employees or with

the physical resources or products or systems of that service provider. theses have to solves the problem for the customer.

In addition, this research is in line with the study of other researches in which the customer service factor has an important impact as follows 1) Bodhisundara & Pattanarangsunodhisundara (2022) who studied The Factors Affecting the Decision to Use Food Delivery Applications in Bangkok. 2) Pankham & Kongkuthong (2022) study about causal factors influencing of repurchase intention ordering service on Lineman application of consumer in Bangkok and its vicinity. 3) Suwanashod & Pankham (2023) examine about Causal Factors Influencing Repurchase Intention for Mom and Kid Productson Shopee Application of Consumers in Bangkok and Its Vicinity. 4) Pankhamand & Chuenphoklang (2022) investigate about Causal Factors Affecting Purchase Intention Products of Cafe Amazonon Line Man Application of Consumers in Bangkok and Its Vicinity. 5) Lexcharoen & Uttamasiriseni (2022) explore about Causal Factors Affecting Loyalty to Buy Foods on Robinhood Applicationof Consumers in Bangkok and Its Vicinity.

The quick response influenced the decision to use Robin Hood food delivery service in Bangkok and statistically significant at 0.05 that it consistent with the hypothesis. This is because the logistics service provider delivers the goods accurately and quickly according to the order. Able to quickly adapt to new markets, it is convenient and easy to give answers to service users. There is a quality control service and they try to develop technology to speed up the transmission and reception of information. Those Would affect the decision to use Robin Hood food delivery service in Bangkok. This corresponds with Serirat & Hirankitti (2017) saying that quick response means being flexible in responding to customer needs and delivery of goods according to the order as well as refinement of marketing efforts and answering customer questions. It is also consistent with the research work of Dejprayoon & Pankham (2023) scrutinize about Causal factors influencing purchase intention tickets on Thai AirAsia application in Bangkok and its Vicinity and find that quick response or instant message is influencing factor.

Price affects the decision to use Robin Hood's food delivery service in Bangkok. Statistically significant at 0.05 that it consistent with the hypothesis. This is because logistics service providers have reasonable shipping rates compared to other service providers. If the price is set too high, it may affect the decision to use the service. However, setting a high price must have some specific features that are special or meet the needs that will affect the decision to use Robin Hood food delivery service in Bangkok. price is an amount of money or other things exchanged for a product or service. Therefore, sellers must consider the benefits received in the minds of customers. The benefits of goods and services should be greater than what customers have to exchange. If the exchange of high value, most often have special features that meet the satisfaction. In addition, this study is in line with the study of Weerayothin (2018) to study factors affecting consumers' decision to use the Uber Eats application for food delivery services. This study the perspectives of users of the Uber Eats application for food delivery services. The research found that price affects the decision to use the Uber Eats application for food delivery services.

In addition, this research is in line with other research studies in which price factors have an important impact on the following that are 1) Tansiri (2022) search about Marketing

mix factors affecting the decision to buy online products of generation Z group in Bangkok. 2) Saengnil & Hansanti (2023) probe about perception and marketing factors affecting the consumer buying decision process of beverages vending machine TAOBIN in Bangkok and metropolitan region.3)Bua-in & Nanthasudsawaeng (2019)research about Marketing mix factors influencing consumer buying behavior of dietary supplements in Rayong province.   4) Paenprasit et al. (2023) drive into marketing mix (7P's) factors influencing to usage decision making of Mongchang café consumers. 5) Panittumrong (2021) learn about factors affecting the purchasing decision of vitamin water of consumer in Bangkok metropolitan.   6) Pankhamand & Chuenphoklang (2022) examine about causal factors affecting purchase intention products of cafe Amazon on Line Man application of consumers in Bangkok and its Vicinity.

Characteristics of the service provider had a statistically significant effect on the decision to use Robin Hood's food delivery service in Bangkok at 0.05 and these corresponds to the hypotheses. This is because the logistics service provider has a proper segregation of duties. Warm and comfortable using the service from selected logistics service provider. They have a corporate philosophy that is the organization's beliefs about performance and service. There are rules, regulations, conventions, and a model for work that members must learn for the efficiency and effectiveness of the group. Those affect the decision to use the service Robin Hood food delivery service in Bangkok, which accordance to Bangmo (2019) said the organizational characteristics have important characteristics that is an organizational philosophy. It is the organization's beliefs about performance and service. This is consistent with Weerayothin (2018) studying factors that influence consumers to decide to use the Uber Eats application for food delivery services. Use the service to accept due to the nature of the organization and the famous Uber brand from the United States, causing users to trust in the service.

In addition, this research is consistent with studies of other researches in which characteristics of organizational factors have significant impacts as follows which are1) Tassawa (2021) study about a structural model of causal effects analyzing of ethical sales behavior and customer trust on customer loyalty of Facebook online buyers. 2) Lekcharoen & Klomklieng (2022) examine about causal factors affecting loyalty in purchasing products through the Makro ppplication in Bangkok and its Vicinity. 3) Wannaporn & Parthana (2023) inspect about Factor affecting consumer behavior purchasing products from application TIKTOK shop in Bangkok metropolitan region.

Conclusion and suggestions

According to the results of collecting data from consumers who decide to use Robin Hood food delivery service in Bangkok, it was found that customer service, quick response, price, and characteristic of service provider all influence the decision to choose a service provider. Therefore, the transport operator should develop the organization to be able to respond to the needs of the service users. In today's era, it is found that information technology is important in being applied in all types of organizations. Therefore, the researcher proposes the use of information technology in the management of food or goods delivery for transportation and organization. Starting from the upstream, it should be designed to be suitable for use and easy for all departments in the organization. these could use in planning and controlling the receiving and sending of goods and dispensing goods including real-time inventory report. In order to delivery system able to support the movement and distribution of products to meet the needs of customers in accordance with the conditions. It also helps to reduce costs and results in rapid operations, as well as helping people in the organization to work conveniently, quickly and without interruption. Those would be affecting work efficiency by using the electronic management system in the business as follows. 1) e-Marketing is an electronic system that uses available information to link marketing and customer service departments. This will be a system that connects 3 ways, namely suppliers, customers and the marketing department that can also be used to link in terms of customer delivery information in each period or each season including size patterns. The number of each shipment and can be used to forecast the operating volume. 2) e-Transport System is an electronic system connected to the activities of goods transportation in order to provide just in time to deliver right location and on time as agreed with the customer.

In addition, a management system with good capabilities helps organizations to manage work well, help in serving people, managing time and helping reduce costs by use information systems that help develop the potential of the organization that are 1) Integrated ERP which this system will be the main system used in corporate services. The system that supports the growth and complexity of the business that will increase in the future as well by using this system to collect customer information, marketing information, financial information and information related warehouse management. In case of we have good and complete information gathering, those would increase competitiveness and in terms of cost savings, resulting in always being ahead and having an advantage over competitors. 2) E-track system, this system is used to track tasks. In order to provide services to customers, quickly check the status of the product in real time online. This used to respond to customers quickly and accurately and reducing workforce. The system also helps both in terms of reducing the cost of service work and respond quickly to customers. Moreover, there are Information system that helps to develop the potential of transportation. The main heart is on-time service which products are delivered just in time is GPS. Truck tracking & fleet management system is a system to track and manage cargo vehicles through satellite helps to control the company's transportation vehicles to run in the route and according to the specified schedule. this help controls transportation costs and employee work to meet company requirements as well as the response to customers is fast. On

time and the quality for customer when we have various information systems to work together. This would result in the organization can control the work and analyze the situation of work plan, control costs, and respond to customer needs accurately and quickly. It can also help support the growth of the organization as well.

Moreover, the further study could consider the repurchase decision issue and other research methodology on service issue special qualitative technique. Those would support and help Thai food delivery business to have more competitive in Thai market. The service aspect also very interesting issue such as the 4 components of service delivery with consider the four logically sequenced steps or areas that companies use to provide the best customer experience through their service delivery. Focusing on these elements can give a broader understanding of the scope of service delivery that could be service culture, employee engagement, service quality and customer service.

New knowledge and the effects on society and communities

The results of the study can be applied to Robin Hood's performance. which is a Thai food delivery platform business that will create fairness by not deduct GP or charge GP at a low rate than other food delivery service providers especially most of foreign owned. This could be a new knowledge for local services delivery and it can develop and improve conducting marketing activities and services to meet the needs of consumers as much as possible to get satisfaction leading to a decision to use the service and increase customers who will come to use the service in the future. In order for small restaurants and related businesses in Bangkok have better business performance, which results in small food operators in the food industry within the Bangkok community. They can increase the circulation of money to the economy in Bangkok. In addition, people in the Bangkok community will receive better service and quality and quantity of food because if the cost of delivery of food is high, food entrepreneurs will have to reduce the quality and quantity in order for the business to continue. Therefore, the results of this study can have an impact on food delivery service in Bangkok, especially Robinhood, a Thai community and Thai organization that tries to help Thai food entrepreneurs and people in the Bangkok community get good service at affordable prices. It increases the quality of life for the community and increases employment and development of people in the community. Moreover, it is a research study that shows the behavioral variables of the new target group in the digital era that have completely changed from before. This research presents perspectives and concepts that cover both traditional and modern consumer behavior. This research should be useful for commercial use.

Acknowledgments

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09

Innovation Driven the Professional Learning Community (PLC) Process for Small Educational Institutions and Remote Areas

Kant Ampanon, Suthep Dhamatrakool and Nittaya Nak-in
Faculty of Education, Phetchabun Rajabhat University, Thailand
E-mail: kant.amp@pcru.ac.th, suthephs897@gmail.com and nittaya.nak@pcru.ac.th

Abstract

This study is based on the idea of a professional learning community, which is a group of educators who get together to share teaching insights, gaining managerial expertise through the process of a professional learning community, which facilitates the transfer of information and the planning of operations that will result in actual operations, the PLC process driving model may be used by teachers to conduct research in the classroom on a regular basis and to share the findings with other members of the teaching staff in order to maintain continuity and sustainability. Therefore, this research article aims to; 1) to create innovation to drive the professional learning community process for small educational institutions and remote areas, 2) to apply innovations in driving the professional learning community process to network educational institutions, small educational institutions, and remote areas, and 3) to confirm innovation in driving the professional learning community process for small educational institutions and remote areas.

It is research and development, and the sample was drawn from purposive selection of small educational institutions in Phetchabun Province, Phichit Province, and Nan Province, totaling 7 locations, confirm the format by referencing qualified experts. The tools used in the research include; seminar recording form on innovation creation, workshop project manual, workshop project evaluation form, and opinion questionnaire. Statistics used include; percentage value; average; standard deviation; and analyze content.

The results of the research found that; 1) Innovation driven process of professional learning community for small educational institutions and remote areas that are built there are 6 aspects; management, teacher and personnel development, environment and learning management atmosphere, co-leadership, learning management and professional development and Applying learning outcomes to improve learner quality. Performance before development in high level, mean ($\overline{X}$= 4.34, S.D.=0.61) after development at the highest level with an average ($\overline{X}$=4.50, S.D.=0.59) an increase of +0.13, 2) Bring innovation to drive process of professional learning community for small educational institutions and remote areas the overall assessment results were at a high level, 3) Confirmed the creation of innovations to drive process of professional learning community for small educational institutes and remote areas it was found that there were several interrelated elements be appropriate. It is feasible, useful and theoretically accurate 100 percentages. The researcher offers the following recommendations on how to apply the research study's findings to promote better educational management; 1) until learners are able to develop themselves to their full potential, driving the professional learning community process for small educational institutions and remote areas should give educational institutions, teachers, and students opportunities to creatively design

learning together, this can be done by creating a professional learning community development plan that is clear and appropriate to the context of learners, and 2) teachers should use innovation to guide the process of professional learning communities for distant and small educational institutions, build routine research to be varied, fulfill the requirements of students, and empower students to be social innovators.

Keywords: Innovation, Driven process, Professional learning community

Introduction

Since teachers are crucial in helping the country's youth become knowledgeable, capable, and equipped with necessary skills for living in the 21st century, which is the era of technology information and changes in many areas, including economics, society, and technology, the concept of developing teachers and educational personnel in Thailand has always been implemented. Providing pupils with academic knowledge, intellectual skills that can acquire knowledge, and the ability to extend knowledge on one's own is important because it reflects the priority placed on the development of school-aged children's quality by National Economic and Social Development Plan No. 12 (2017–2021). As for the National Education Plan 2017–2036, it has placed a strong emphasis on creating contemporary Thai with the habit of studying, the capacity to learn on their own, and a lifelong thirst for information, and focus on reforming the entire education system, developing teachers, lecturers, and educational personnel, in order to get good teachers, talented teachers, morality, quality, and higher academic status. (Dhedchawanagon, 2023)

The teaching profession and educational staff, particularly teachers, should place a high priority on professional learning communities (PLC). The Ministry of Education policy will take effect on February 28, 2017. Which about the main features that make PLC (Martin, 2011; Hord, Roussin & Sommers, 2010; Annenberg Institute for School Reform, 201; DuFour, 2007) into 5 things, namely; 1) Having common norms and values, a learning community, or learning community in schools, is a group of people who share certain standards and values, these shared norms and values are essential principles that serve as a foundation for growth. The PLC teachers must thus adhere to the same norms, beliefs, and perspectives towards learning management, 2) Since the targeted learning outcomes for students require for a variety of techniques and strategies, instructors and students must share responsibility for student learning. This is made possible by teachers having high expectations for their students. It is also a goal held by all teachers who are a part of the professional learning community and is based on the notion that all students can learn. Finally, it aims to improve learning management and student achievement, 3) Professional reflection studies, conversations about teaching and learning administration among members of the learning community, particularly between teachers, professionals, educators, and administrators, to reflect on the results of practice, including jointly proposing useful guidelines that improve student learning. Reflection and guidance will give a tool or method for assessing important issues that will enhance teaching and learning, the level of education in schools, or that will assist in the development of learning management, leading to pupils meeting higher academic standards. 4) Cooperation and the community of professionals who are learning places a high value on teacher collaboration across the board as well as collaboration within the professional learning community. In order to carry out activities to success under the same purpose, the cooperation will be centered on the sense of interdependence among community members throughout activities to achieve the

goals. For instance, there was a sharing of teaching strategies, educational resources, and different learning management systems, 5) Supporting staff or community members' ability to observe instruction, offer feedback, and reflect on performance. This includes fostering connections within the organization and the hierarchy of the workforce. The development of a professional learning community will be fully supported by including the teaching of peers and of the learning community to concentrate on the learning process that takes place in the community and to boost student accomplishment.

Each educational institution has decided how its personnel development work will proceed in accordance with the policy, which emphasizes self-development through the process of a professional learning community, but from the follow- up evaluation of the development of the teacher personnel development program. Teaching and educational staff development courses with the theme "Learning Management for Teachers in the 4.0 Era: Integration Across Learning Subjects to Innovation" Fiscal Year 2018 (Limprasong, 2020), Curriculum Code: 612032003, according to research, the majority of teachers' issues with VLC job stem from a lack of knowledge and awareness in their own self- development and a fundamental lack of knowledge interchange. Lack of giving, being a one- sided recipient, teachers who aren't sure of their own expertise and aren't willing to offer their thoughts, and a lack of knowledge summaries that would integrate what they have learned into a new body of information are all problems. The Office of Basic Education organized a training for the development of leaders in building a learning community by bringing representatives of administrators, education supervisors, and teachers from each school district to train, hoping to bring the results to teachers in the district study. The Office of Basic Education learned from interviews with trainees that the school lacks advisors, but discovered that despite their training and development, teachers are still unable to put their knowledge of the professional learning community process into practice. This is because development training places more emphasis on theory than on practical application, making instructors wary of their job. Instructors don't want to practice since they are exempt from the PLC policy change and lack the necessary skills to form effective groups, such as early childhood educators or tiny schools with only a couple of instructors who are unsure about their grouping partners, other jobs cannot be scheduled at the same time, and it is crucial that no one at school does them.

Because of the issues raised above, Phetchabun Rajabhat University has decided to adopt guidelines for managing the process of putting the learning community's professional theory into action in terms of management and practical classroom activities. The university is an educational institution with policies and missions to advance, support, and quicken the development of education management across all sectors. Implementing the policy will help the Faculty of Education focus on what it does best, supporting staff development in areas like managing the learning process, managing professional experiences, and measuring and evaluating education, to encourage instructors in educational institutions to create learning management systems in accordance with the professional learning community approach and educational research that can be used in actual practice in educational institutions, as well as many sciences of other fields.

Therefore, the project's scope is as follows when conducting this event so that educational institutions can introduce the community process of professional learning to educational institutions; 1) a plan to drive professional learning communities in educational organizations, 2) workshop projects, 3) using PLC processes in classroom research, 4) supervision, monitoring, and evaluation, and 5) performance report form, and in order to accomplish the goal, the researcher has organized a research project on innovation to propel the professional learning community process for smaller educational institutions and more rural

areas, to build the capacity of teachers to be able to manage learning to achieve the set goals and objectives.

Research Objectives

　　　1. To create innovation to drive the professional learning community process for small educational institutions and remote areas.

　　　2. To apply innovations in driving the professional learning community process to network educational institutions, small educational institutions, and remote areas.

　　　3. To confirm innovation in driving the professional learning community process for small educational institutions and remote areas.

Methodology

　　　The purpose of this study is to develop a community of professional learning that is driven by innovation in order to test, assess, and verify innovation while taking into account the context of each educational institution's size, composition, suitability, feasibility, and theoretical validity.

　　　Step 1: The researcher conducts a problem analysis and collects data from theses, academic papers, books, journals, websites, theses, theories of knowledge integration, educational innovation, relevant literature, and other sources to create a research framework.

　　　　1. Books, papers, textbooks, associated academic materials, such as innovation for advancing community processes of professional learning, ideas and theories of active learning, concepts/theories of learning management skills in the 21st century, regular work as research, and related literature.

　　　　2. Among the sources that may be searched are academic articles, research papers, training materials, other publications, educational organizations, educational service area offices, and basic education institutions.

　　　　3. Collecting data, which means that the researcher has thoroughly examined the document's contents and the study by recording the data by taking photographs, practicing, summarizing the lesson, taking the test, etc., and presenting those significant data to a group conclusion.

　　　　4. Conduct an analysis and summary of the data, assemble a group of experts for the first time, and select five individuals who carry out tasks related to the professional learning community (e.g., school administrators, teachers, education supervisors, and curriculum specialists). These individuals will be responsible for creating training manuals, drafting innovations, documenting issues and roadblocks, and directing professional learning community processes.

　　　Step 2: Organize a workshop project using the handbook to guide the professional learning community process and evaluate phase one effectiveness. The material that is crucial to be used in the second phase should then be analyzed and improved upon during the second group seminar. This step involves bringing innovation to drive the professional learning community (PLC).

　　　Step 3: Key informants, the selection criterion is that the institution of higher learning must request to participate in the project that the researcher has suggested. It is a small basic education in the northern group of 3 provinces, namely Phetchabun Province, which consists of Tat Mok Wittaya School, Ban Dong School, Ban Bong School, Phichit Province, which has Khao Sai Thap Khlo School, and Nan Province, which has Ban Pao School, Ban Wang Tao School, and Hua Wiang Nuea School. In total, there are 75 people working in these 7 locations: 7 administrators and 68 teachers. This research is a research and development project and the sample was obtained through purposive selection.

Step 4: Create research tools in this research, classified into 4 types as follows;

      1. To synthesize knowledge, two expert group seminar sessions were recorded, produce instructions and inventions.

      2. Workshop project manual.

      3. Workshop project assessment form.

      4. Opinion questionnaire.

Step 5: How to make a tool and looking for quality tools.

      Activity 1: involves planning a seminar for five experts who fit the requirements, creating an innovation driving process for a professional learning community, and presenting a draft operating manual and an innovation driving process, professional learning community that has been finished and is prepared to be reviewed, modified, and used at the meeting.

      Activity 2: Assess the tools' quality and the content's veracity, calculate the consistency index, take into account the beginning value of 0.5 or higher, obtain the consistency value of 0.975, put it to the test starting in June 2021, and plan a training project operation phase 1. The second step then arranges recurrent training seminars after supervising, supervising, and monitoring implementation.

      Step 6: The data were analyzed using statistical processing, percentage, arithmetic mean, standard deviation, and content analysis.

Results

Objective 1: to create innovation to drive the professional learning community process for small educational institutes and remote areas by trialing the tool two times.

Table 1 Process-driven innovation for professional learning communities for small and remote schools, consisting of 6 aspects as follows;

No	List of Details	1st Time			2st Time			Difference	Development Results
		$\overline{X}$	S.D.	Interpret	$\overline{X}$	S.D.	Interpret		
1	Management: policy direction and school strategy	4.27	0.62	a lot	4.47	0.60	a lot	+0.2	more
2	Promotion and development of teachers and personnel	4.32	0.59	a lot	4.52	0.59	the most	+0.2	more
3	Environment and atmosphere in learning management	4.36	0.58	a lot	4.52	0.59	the most	+0.2	more
4	Co-leadership	4.31	0.69	a lot	4.44	0.68	a lot	+0.13	more
5	Management of learning and professional development	4.42	0.60	a lot	4.57	0.54	the most	+0.15	more
6.	In applying learning outcomes to develop learner quality	4.36	0.58	a lot	4.49	0.55	a lot	+0.13	more
	Overview	**4.34**	**0.61**	**a lot**	**4.50**	**0.59**	**the most**	**+0.16**	**more**

From Table 1: innovations for driving community processes of professional learning for small educational institutions and remote areas were built in 6 aspects as follows; from the first performance, it was found that the performance before development training was at a high level ($\overline{X}$ = 4.34, S.D. = 0.61) the highest aspect was aspect five, which was learning management and professional development at a high level ($\overline{X}$ = 4.42, S.D. = 0.60), and the least was the aspect one, which was management: policies, directions and strategies of schools were at a high level ($\overline{X}$ = 4.27, S.D. = 0.62). However, in the second it was found that the periodic performance of the performance monitoring supervision, which found that the average increase was greater than the first time in all aspects, the overall performance was found to be at the highest level ($\overline{X}$ = 4.50, S.D. = 0.59) increasing +0.16. The most common area is the five area, which is learning management and professional development is at the highest level ($\overline{X}$ = 4.57, S.D. = 0.54), which increases +0.15, and the least is the four aspect, that is co-leadership is at a high level ($\overline{X}$ = 4.44, S.D. = 0.68), increasing +0.13.

Objective 2: bring innovation to drive the process of professional learning community to network schools, small schools and remote areas performance, according to table 2.

Table 2 Levels of satisfaction on cognition and applying knowledge to good use (n= 75)

No	List of Details	$\overline{X}$	S.D.	Level
1. Knowledge and understanding of PLC process drive model		**4.43**	**0.57**	**a lot**
1.1	Knowledge and comprehension in order to build professional ethics, the professional learning community is being improved.	4.49	0.50	a lot
1.2	Participation in activities that support the community process of professional learning and knowledge acquisition in order to establish professional ethics.	4.37	0.56	a lot
1.3	Having job skills can help you acquire professional ethics through the process of improving professional learning communities.	4.45	0.50	a lot
1.4	Possess the necessary procedural abilities to integrate teaching and classroom research.	4.47	0.58	a lot
1.5	Possess the capacity to create learning management that is responsive to changes.	4.39	0.63	a lot
2. Professional learning community process (PLC)		**4.59**	**0.50**	**more**
2.1	The acquired information satisfies the requirements of learning community participants for professional ethics, and a clear, systematic approach is followed to create professional ethics.	4.61	0.49	more
2.2	Lecturers have experience and ability to operate in educational institutions.	4.73	0.45	more
2.3	The training resources provide thorough information and examples that might be helpful in putting PLC in place in schools.	4.45	0.50	a lot
2.4	improved understanding and proficiency with PLC following training.	4.53	0.58	more
2.5	For optimal advantage, the information acquired after the training will be included in the educational institutions.	4.60	0.49	more

No	List of Details	$\overline{X}$	S.D.	Level
3. Regarding organizing the PLC professional learning process		**4.25**	**0.67**	**a lot**
3.1	Between teachers and staff members of the school, a PLC team was formed.	4.23	0.71	a lot
3.2	PLC procedures are coordinated in educational settings.	4.21	0.70	a lot
3.3	The academy wants to operate PLC continuously each academic year after learning how to do so from their peers.	4.20	0.64	a lot
3.4	There is supervision and follow-up from the executives regularly after the training.	4.21	0.70	a lot
3.5	Administrators support and facilitate teachers who operate the PLC.	4.38	0.72	a lot
4. Teachers' readiness for teaching practice		**4.06**	**0.75**	**a lot**
4.1	The preparation time was appropriate.	4.33	0.74	a lot
4.2	Management issues and roadblocks, problem-solving throughout project execution.	4.21	0.76	a lot
4.3	Learning from the process of promoting professional ethics through the PLC process.	4.28	0.80	a lot
4.4	The application of innovation in promoting professional ethics of teaching personnel.	4.48	0.58	a lot
4.5	Have a positive impact.	4.49	0.58	a lot
4.6	There are negative consequences.	2.53	1.02	moderate
	Total	**4.33**	**0.53**	**a lot**

From Table 2: assessment of cognitive satisfaction and knowledge utilization, the researcher designed the assessment in 4 aspects; 1) information and comprehension of the methodology for guiding professional learning in communities, 2) process of professional learning community, 3) motivating force behind the collaborative nature of professional learning in institutions of higher learning, and 4) the readiness of teachers in teaching. Overall, it was found that it was at a high level ($\overline{X}$ = 4.33, S.D. = 0.53) when considering the descending aspects as follows; the professional learning community process was at the highest level ($\overline{X}$ = 4.59, S.D. = 0.50), and the least aspect is the readiness of teachers in teaching at a high level ($\overline{X}$ = 4.06, S.D. = 0.57).

Objective 3: Confirmation of process-driven innovations for professional learning communities for small and remote schools, performance on schedule.

Table 3 Assessment of process-driven innovations for professional learning communities for small and remote areas.

No	List of Details	$\overline{X}$	S.D.	Level
1	Professional learning communities (PLCs) that are driven by innovation are in line with what educational institutions require.	4.80	0.56	more
2	Are congruent with the issue-barrier situations at the institution of higher learning.	4.60	0.63	more
3	Learning activities cover all subject groups.	4.53	0.64	more
4	It can cut down on the time and labor involved in managing students' and instructors' learning.	4.40	0.74	a lot
5	The exercises are acceptable and simple to grasp, as is the terminology utilized.'	4.53	0.52	more
6	Innovation will be the driving force behind the professional learning community (PLC) process for small and distant educational institutions, which is ideal for the growth, instruction, and learning management of students at all levels of basic education.	4.33	0.49	a lot
7	The learning management system was created with the teacher's routine and the work schedule for the school in mind.	4.73	0.46	more
8	The implementation process is simple and practical.	4.40	0.51	a lot
9	It is a method for combining information and growing experiences that address crucial life skills.	4.33	0.49	a lot
10	To expand the outcomes to network schools that offer education at the same level, professional learning communities (PLC) can be used to drive the process in small and rural places.	4.53	0.52	more
	Total	**4.52**	**0.55**	**more**

From Table 3: while taking into account the item with the highest mean, it was discovered that the overall assessment of the quality of innovation in fostering community processes of professional learning for small educational institutions and distant locations is at the greatest level ($\overline{X}$= 4.52, S.D. = 0.55). The first item is that the professional learning community innovation for small and distant educational institutions produced is commensurate with the demands of educational institutions at the highest level ($\overline{X}$= 4.80, S.D. = 0.56), and the two items with the least value are equal, item six process-driven innovation, professional learning community for small educational institutions and remote areas that are suitable for educational development and learning management for learners of all levels, and item nine is a guideline for managing the integration of knowledge in developing experience management covering the competency-based curriculum at a high level ($\overline{X}$= 4.33, S.D.= 0.49).

Discussions

From research on Process-driven innovation for professional learning communities for small and remote educational institutions, results can be discussed as follows;

1. Process‒driven innovations for professional learning communities for small and remote educational institutes created consist of six aspects;

1.1 Administrative aspects: policies, directions, and strategies, educational institutions have a strategic plan, an annual action plan in accordance with the guidelines for the development of a professional learning community development plan, define and prepare and change the vision, support research and use research findings to raise the caliber of learners, and encourage teamwork. This is consistent with the study by Dechakup & Yindeesuk (2018) which mentions the elements of PLC and states that the establishment of a professional learning community in schools requires collaboration among the staff members, including the director, administrators, head of the learning group, subject matter experts, study supervisors, and teachers. Stoll & Louis (2007) among others, claimed that management of an organization feels secure or unburdened based on the management of a professional learning community, professional development learning is an environment for teachers to feel connected rather than isolated, a collaborative learning space using a variety of strategies, and an intrinsically cohesive group that collaborates academically with one another.

1.2 Promotion of teachers' professional development and staff development of professional teachers during the supervision system to follow‒up on teachers' work, closely advise problem‒solving, study visits, exchange knowledge, use technology to communicate, bring information, and research is a management tool to create new innovations for excellent results in organizations. According to Montha (2019), improving teaching and learning is the only way to lead to the development of student outcomes, starting from teacher development, quality with knowledge and competence, skills in learning management, and being able to manage teaching and develop learners. These authors cited Luangsawat, Teeravanichtrakul & Rakngam: (2018) in support of their claim that improving teaching and learning leads to the development of student outcomes. According to Battersby (2015) it was suggested that schools apply the PLC process to provide instructors the opportunity to change learning management, increase awareness, improve teachers' teaching skills, and assist students' learning as effectively as possible.

1.3 The learning management environment and climate foster a psychological environment and foster a favorable perception of the school's mission and objectives. It was discovered that professional learning communities are a way to develop teachers by giving them a place to exchange ideas and learn from one another, which is in line with Phuangsomchit (2017) research on professional learning communities and recommendations for their implementation in educational institutions. As a result, instructors have a network with which to collaborate in order to advance students' learning.

1.4 Joint leadership, bolstering joint leadership both directly and indirectly with strong governance, to raise the power of members with leadership, support to increase the power of each other's work, generate inspiration, and inspire instructors to work freely. This kind of gathering is driven by the needs and interests of PLC members for learning and professional development in accordance with the learning standards of learners, according to Panich (2012), who also mentions having shared values and a shared vision. This type of gathering enables people to learn together and apply what has been learned in a creative way. According to Yoophakdee & Areerat (2017) study it was discovered that the four

administrative characteristics of leadership, organizational system, organizational structure, and management jointly predicted the professional learning community of school teachers.

1. 5 In terms of learning management and professional development, instructors engage in hands- on, real- world learning management practices that directly impact students' learning and challenge their potential. Establish new practices, be skilled in utilizing electronic media for instruction and learning, measure and evaluate performance both online and offline using a range of methods, and use empirical evidence to support unambiguous conclusions. According to the findings, which were in line with Theparee (2014) research on the development of a professional learning community model for primary school teachers, a professional learning community model for elementary school teachers with a culture of learning requires teachers to become familiar with the mission, core values, and operating environment of the institution where they work, by merging school culture with culture, values, and changeable self- worth, there is empowerment created when learning possibilities are created in a learning environment.

1. 6 Applying learning outcomes to improve learner quality, utilizing assessment outcomes as a tool to enhance operations, raise awareness, help stakeholders understand the operating conditions that exist, plan projects and various activities, and allowing students to reach their full potential and become academically outstanding citizens. Consistent with Chaibang (2017), the concept of building a professional learning community was applied in Lamplaimat Pattana School, by designing a problem- based learning management or problem- based learning (PBL), which is a form of learning to develop new skills that are needed in the future. When working on which teacher can do it, what is it or isn't, the group of teachers comes to a conclusion and exchanges, which everyone must understand collectively, also includes the role of administrators, which must be given importance to the development of teachers, this is what this innovative PBL reveals.

2. Implementing innovation to drive the community process of professional learning to small educational institutions and remote areas being an educational institution applying to participate in the project to develop the academic administration system of all seven educational institutions, namely; Phetchabun Province, which consists of Tat Mok Wittaya School, Ban Dong School, Ban Bong School, Phichit Province, which has Khao Sai Thap Khlo School, and Nan Province, which has Ban Pao School, Ban Wang Tao School, and Hua Wiang Nuea School, can be summarized as follows;

In terms of policy, 1) promoting education that is aligned with the school's focus objectives and overall strategy, 2) promote educational development effectively and efficiently, 3) cultivate consciousness and foster creative learning along with competency, and 4) develop a sense of discipline, help students understand their responsibilities, and improve their learning experiences by doing so.

Other applications, 1) promote awareness and bolster the spirit of voluntarism in public development for the good of the general populace, 2) cultivate consciousness and strengthen the courage to think, dare to do, dare to show the ability to do what is right and have positive thinking. In which Limprasong (2020) discussed creating a model to guide the professional learning community process in cooperation with the Teachers Council of Thailand Secretariat to organize a project to strengthen the professional learning community process to foster professional ethics through the use of system information technology (E- PLC) . Influencing the growth of group instructors, providing thoughts on issues with teaching and learning management, strengths, and areas that other teachers should work on, and allowing for the identification and improvement of defects. Stolland Louis (2007) asserts that the PLC is an inherently cohesive organization that emerged from a mutual care ethic connected to

teachers' lives. Friendship, between students, teachers, and community leaders, is what gives PLC the appearance of a group of people who trust one another, are open-minded, and believe in one another's potential.

3. Evaluation results of innovation for driving professional learning community process for small educational institutions and remote areas, the innovation evaluation results were at the highest level ($\overline{X}$ = 4.52, S.D. = 0.55). According to assessment findings citing specialists, the multicomponent innovations produced reflect 100 percent and are connected, suitable, practicable, beneficial, and theoretically sound.

The results of this research, however, are supported by the theory that many areas of educational quality development from the past still need to be accelerated and improved. As a result, the current government should concentrate on promoting teacher development in teaching and learning to become excellent teachers in the 21st century, the budget of educational institutions is constrained, but this operation needs funding to spur change. According to Wicharn Phanich (2012) theory, schools need to grow as institutions and enable teachers to support one another in professional development. Thus, driving the professional learning community for teachers (PLC) is used to drive learning and professional development of teachers together based on working in actual classrooms as a teacher learning community for students, this leads to the development of learning methods, and develops the organization. Additionally, the work that instructors perform together outside of the classroom to create learning management systems and be ready to teach is crucial to raising student accomplishment and advancing the teaching profession. Additionally, it is in line with the findings of Hord (2010) study, which established that using the PLC paradigm causes qualitative shifts in both professional and academic accomplishment. PLC is seen as tough, but it is something that may help increase student learning in schools over time and can help promote instructors' teaching abilities in addition to assisting kids in learning effectively, which is consistent with the findings of many other researchers.

Conclusion and suggestions

According to the aforementioned conclusions, the fundamental ideas and principles that were applied in the development of the teacher professional learning community model are appropriate and consistent with the guidelines for developing the teacher professional learning community model, in order to promote the capacity to oversee student- centered learning in accordance with high impact practices. The formula was useful and concrete as a result of the study's findings, which are consistent with Hord (2010) concept of creating a professional learning community model, which found that professional learning communities are a way for administrators, coworkers, and teachers to work together to solve problems and create learning management for students in order to achieve the specified educational goals. The agreement among participants in a process with stages will result in advantages that students, instructors, administrators, and organizations or schools will successfully get with the help of administrators, schools, parents, communities, and corporations that sponsor education. As all parties collaborate to learn and practice, students will directly benefit from the development of students and teachers under the full umbrella of educational information that has been gathered through investigation, analysis, and synthesis into visions, objectives, and goals of educational management. In a learning environment where everyone participates in learning together, there is mutual assistance among members rather than competition, supported by government policy,

support in terms of time, resources, media, and funds, including the physical learning environment, and the skills of personnel from school administrators.

The primary common elements identified by the researcher in her compilation of knowledge from studies on the efficiency of the community process of professional learning are;

1. Innovations can be produced through the efficacy of learning management, learning management via thought process, and practical practice.

2. Classroom management took into account both good and successful teaching methods as well as those that provide challenges to students' learning or are not conducive to learning as it should be. This was done through the appropriateness activity performance phases of the teaching process. Learning activities and assessment and evaluation, sequencing and continuity of activities, appropriateness and consistency of purpose, classroom management, and how to oversee classes or group activities are all important considerations. Learning activities contribute to the development of learners' skills, their timing and structure being suited to the course material, learners' proficiency level, etc. Instructional activities facilitate interaction/exchange of learning between learners and students as well as between teachers and learners.

3．Thinking about the responses, words, behaviors, expressions, evidence of various accomplishments that represent knowledge and understanding, thinking processes, learning processes, and various learning outcomes of learners is important when it comes to the learning plan, especially those that represent knowledge, ideas, or understandings that are false or incorrect. Enthusiastic involvement in identifying some of the students as exceptional and fascinating persons (both positively and negatively), providing instances of how students deepen their learning via conversations and activities, emphasizing the range of approaches students use to problem-solving, etc.

4. Self- development according to professional standards, considering the use of questions, instructions, explanations, or the use of teachers' media, the sequence of steps for presenting questions, instructions, or explanations the correctness, effectiveness of activity materials, worksheets, learning resources (quality), adequacy of media (quantity) etc., teacher reinforcement, etc.

5. Continuity of performance analysis of indicators, measurements, tools, and assessment criteria in the classroom, summarizing strengths, weaknesses, recommendations for improvement, prominence, opportunities, problems, and obstacles that affect student learning, which can be plainly seen to be indicative of best practice, innovation, etc.

6. Positive classroom management, a learning atmosphere that takes place in the classroom or other learning environment, affects the effectiveness of teaching and learning management of students, accepts opinions, questions, and provides assistance, and lessons encourage students to come up with ideas, questions, speculations, and/ or proposals, among other things.

7. A systematic examination of learners is required in terms of inspection and evaluation, and the findings must be used to help learners improve their growth.

8. Teaching observers' sharing of knowledge and criticism in order to build and enhance learning management, by addressing topics that will influence the creation of a lesson plan and the actual classroom instruction in the future, write a letter summarizing the important points from the class observations.

In order to apply the results of the research study to be more useful in driving education management, the researcher has the following suggestions;

Research Recommendations

     1. In order to drive the process of vocational learning community for small and remote educational institutions, educational institutions, teachers, and students should be permitted to design creative learning together. To do this, community development plans of professional learning should be clear, appropriate to the learners' context, and developed before the learners can develop themselves to their full potential.

     2. To satisfy the demands of the learners, teachers should create a diversity of ordinary work into research, and students may become social innovators, these communities should be process-driven innovation for small schools and rural places.

Suggestions for Further Research

     1. According to the rapidly evolving period, a causal link study should be conducted on the creation of innovation-driven procedures for professional learning communities.

     2. To promote community processes of professional learning with various ideas and theories to use in order to accomplish a range of continuous and sustainable learning, innovation-driven classroom research should be supported.

     3. With participants in professional learning community activities, education should be provided on collaborative leadership, decentralization, and empowerment.

New knowledge and the effects on society and communities

     In order to address the issues of learners' learning management in line with changes in the 21st century, where teachers must seek knowledge alongside students, process-driven innovation of professional learning communities for small and remote educational institutions is built with elements derived from brainstorming and recommendations of experts in applying innovation to guide schools. In order to encourage students to seek problem-solving and learn more broadly, instructors must also design learning and equip themselves to act as coaches and facilitators, such as problem-based learning (PBL), brain-based, project-based learning, 5E, STEM, phenomenon-based, and research-based learning, etc. The "professional learning community", created by instructors coming together to share the experience of each teacher's role, is another crucial component of the effort to manage learning alongside teachers and students. The ability to bring the PLC process-driven model to the classroom research work, which is a routine task, and to extend the results to other educational personnel so that they are continuous and sustainable, is promoted by learning management skills with a professional learning community process, teachers have knowledge and understanding of these concepts.

     As a result of this study, a model for a professional learning community for teachers was developed to support their capacity to plan student-centered learning in accordance with the standards for high impact practices, because of the use of participatory action research, the school has improved the quality of its teaching, leading to increased student accomplishment and more collaboration and camaraderie among instructors. The teacher empowerment program was developed as a result of this research using a participatory action research methodology. In order to put information regarding organizational change and teacher empowerment into reality, a collaborative learning approach between the researcher and teachers in the sample schools was adopted during the study process.

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10

Development of an Academic Administration Model on a Digital Platform to Enhance the Quality of Life and Competence Amongst Underprivileged Students in Wat Si Don Chai Municipal Community School, Chiang Mai Province

Natthanan Langkarat
Wat Si Don Chai Municipal Community School, Chiang Mai, Thailand
E-mail: am.natthanan.l@gmail.com

Abstract

This research and development study consists of the following objectives: 1) to study basic information in developing a digital-based academic administration model to promote the quality of life and competency of underprivileged students in urban communities, 2) to develop an academic administration framework using digital technology to improve underprivileged students' quality of life and academic competence in a Municipal Community, 3) to determine the overall results from the model, and 4) To evaluate the outcomes. The study's informants were Wat Si Don Chai Municipal Community School personnel. This included 2 School Deputy Directors, 36 teachers, and 5 representatives from the Education Committee, bringing the total to 43 people. The study also included 247 students from kindergarten 1 up to Mattayom 3 who were in their second semester for the year 2021 and who fit the criteria set by the Wat Si Don Chai Municipal Community School for underprivileged students in the area. The research instruments used for this study were questionnaires, interviews, group meetings on guidelines to operate according to the framework provided, digital skill evaluation forms for personnel, evaluation of teachers' capability to enhance students' competence, evaluation of students' quality of life and competence and a satisfaction survey. Statistics used in data analysis consisted of determining frequency, percentage, mean and standard deviation, and descriptive analysis. The results from the study showed that 1) An effective academic administration model. To do so, it is imperative to develop a curriculum that aims at competency and at the same time, also develop a digital, online learning management system. It is also important to promote further research that aims to solve key issues amongst underprivileged students. The academic administration should also develop a learning center that focuses on building occupational skills, along with developing a network that can help the underprivileged. Finally, the framework also consists of educational supervision that can empower the students. 2) After implementing the model, it was found that increase in the staff's digital skills and increase in their ability to manage the learning emphasizes competency, quality of life of student, and competency also increased. 3) Finally, the school's personnel were also satisfied at a high level with the model provided.

Introduction

At present, Thai society is still faced with an ongoing issue of inequality in the education sector and this has either resulted in the halting of education mid- way or not completing higher levels of education amongst underprivileged students. Apart from the lack of adequate access to education, underprivileged students are also faced with other issues such as social discrimination at school or other educational institutions. Moreover, underprivileged children who are financially poor are discriminated against at a much higher level than other children. In the past, the rules and regulations implemented by the government haven't been effective to resolve the aforementioned issues amongst underprivileged children who have poor families, are stateless, or are migrants. Furthermore, it is anticipated that the integration into the ASEAN community and a borderless state will contribute to the exacerbation of the challenges related to migration and displacement, affecting not only migrant workers but also refugees, internally displaced persons, homeless individuals, and children from disadvantaged families. Therefore, if we remain unaware of the direction and severity of the impending issues, and if the government and relevant organizations do not take prompt and serious action to prevent and address these problems consistently, it is anticipated that Thailand will face severe challenges in terms of the quality of its human resources in the near future (Tumthong et al., 2014).

Wat Si Don Chai Municipal Community School is located in the city of Chiang Mai province. The community surrounding the school is densely populated and most students residing in the communities belong to poor families and reside in houses along the Mae Kha canal. The community consists of locals, hill tribe people, and migrants who have come to live or work in the area. The locals are composed of those who have been living in the area for generations, emigrants who have relocated from various regions, and those who have relocated from other provinces to earn a living. The living conditions in the community are quite poor, with a lack of proper housing arrangements and a lack of access to basic hygiene and cleanliness. Apart from the crowded living area, the school is also located in the central area of the community, surrounded by other places such as markets, hotels, companies, and various shops (Wat Si Don Chai Municipal Community School, 2021). The children who enroll in Wat Si Don Chai Municipal Community School come from diverse ethnic backgrounds. According to a preliminary survey, it has been found that approximately 54% of the students are underprivileged, non- Thai nationals, or children of migrant workers. This percentage is considered relatively high (Faculty of Education, Chiang Mai University, 2022). Wat Si Don Chai Municipal Community School has set a goal for students to achieve a quality education that meets the standards set by the school and the Chiang Mai Municipality. The affiliated departments continue to provide support in terms of budget allocation for continuous and consistent educational development and management. Additionally, the school has received cooperation from the Office of the Basic Education Commission, parents, the community, and various organizations to actively participate in activities that promote the school's development in terms of providing education. This is reflected in the school's vision statement: "Wat Si Don Chai Municipal School strives to be an excellent educational institution that produces well-rounded students and highly- qualified teachers in an inclusive administration" (Wat Sri Don Chai Municipal School, 2021). Academic administration in Wat Si Don Chai Municipal School is one of the main and most important aspects in terms of fostering knowledge, capability, essential skills, and desirable qualities among students and as outlined in the school's objectives. School directors who prioritize academic administration as one of their main duties

are able to raise the quality of education. On the other hand, if there isn't much importance placed on improvising the academic administration, with resources being used in other, less important areas, the education institution won't be able to reach its goals in terms of developing quality education (Songwongnam, 2008). Thus, it is necessary to have a proper framework that outlines the proper development of academics and that also takes into account the environment of the educational institute (Boonpim, 2010).

The progression of development of academics in any educational institute requires the active involvement of both the school personnel and relevant stakeholders. Apart from that, having the local communities engaged is one of the most important factors which contribute to the development of the nation. Therefore, the concept of involving communities or the general public in development efforts in all aspects is presently a view that is widely adopted and accepted (Ketchaona, 2011). Active involvement of individuals creates a space for the collaboration of unique skills and ideas, thereby maximizing the benefits for the organization. The leaders and followers have an important role of working together to solve various problems that arise within the organization and to also adapt strategies within the administration in a manner that's appropriate to the current situation (Phromnikorn, 2011). An administration that embraces collaboration will directly impact the education system in the following three aspects: 1) Higher academic achievement among students 2) Successful operation of the school that creates a strong network built on the foundation of education and 3) Collaboration with the community will foster positive relations between relevant parties (Kwanpracha, 2013). A school academic director in today's age not only has to oversee the academics of the educational institute but also lead the use of digital technology in both the administration and classroom so that both educators and learners have the necessary digital knowledge and skills in their hands to reach the targets outlined in the modern curriculum (Ngamkanok, 2021). Effective practices for managing information and communication technology in digital-era educational institutions include accepting the introduction of technology and changing school personnel (Machek, 2022). The use of digital technology as a foundation for academic administration is prevalent in many areas today, especially with the increasing adoption of online learning. The educational directors and executives utilize information and communication technology to support the school's administration, enabling them to efficiently support and develop the school's curriculum (Ngamkanok, 2021). An educational institute's administration in the current age of digital technology plays a very important role in developing a system of management to raise the quality of learning via the use of information technology. Moreover, teachers, students, parents, and other stakeholders should also have access to technology, news, learning resources, and other services provided by the school. Effective planning and implementation are crucial in developing a digital technology system that capable of providing services to all stakeholders (Machek, 2022).

Based on the aforementioned reasons, The researcher is therefore interested in developing a digital model of academic administration to improve the quality of life and competency among underprivileged students in the municipal community. The digital model of academic administration will make the system more efficient and of high quality as its main aim would be to promote a learning environment that focuses on students' quality of life and competency, especially among the underprivileged children residing in the municipal community. Under the administration process that promotes the involvement of all stakeholders, there will be opportunities for collaboration and the learning of key roles and responsibilities. Clear guidelines and shared learning experiences will be established within the context of Wat Si Don Chai Municipal School. This will enable the academic administration to achieve its goals efficiently, bringing benefits to students, teachers, educational personnel,

the school, and the community. Furthermore, it will also provide a clear direction for the future development of education in our nation.

Research Objectives:

1. To study essential data in order to develop a digital academic administration framework to enhance the quality of life and increase competency amongst underprivileged students at Wat Si Don Chai Municipal Community School.

2. To develop an academic administration framework using digital technology to improve underprivileged students' quality of life and academic competence at Wat Si Don Chai Municipal Community School.

3. To study and analyze the outcomes of using the digital model of academic administration to support and enhance the quality of life and competency amongst underprivileged students at Wat Si Don Chai Municipal Community School.

4. To determine the satisfaction levels of using the digital model of academic administration to improve underprivileged students' quality of life and competency at Wat Si Don Chai Municipal Community School.

Methodology

Step 1 Studying and gathering essential data in order to develop a digital academic administration model to enhance the quality of life and increase competency amongst underprivileged students in the municipal community.

1.1 The information group on the conditions and problems of participatory academic administration included the personnel of Wat Sri Don Chai Municipality School consists of 2 deputy directors of the educational institution, 36 teachers, a total of 38 people, and the group that provided information on factors that facilitate participatory academic administration included the 3 directors with best practices.

1.2 The instruments used to collect research data are the questionnaire about conditions, problems, and factors contributing to participatory academic administration. It has a discriminatory power value ranging from .31 - .84 and a reliability value for the entire version equal to .84. The interview form for directors of schools with best practices passed a quality check by 5 experts who helped check the language clarity and appropriateness of the interview topic.

1.3 The information gathered during this step can be divided into two subtypes:

1.3.1 Identifying the main problem and key factors that would support the development of an academic administration on a digital platform to increase student quality of life and competency at Wat Si Don Chai Municipal Community School. The source of the primary data consisted of the school personnel, including 2 Deputy Directors, 36 teachers, and 5 representatives from the Education Committee. This brought the total to 43 people.

1.3.2 To study the operation model as outlined by experts in the field. This includes educational directions whose line of work is similar to the objectives of this research. The best practices in the following areas will then be examined: 1) Academic Administration 2) Using digital technology as a foundation for learning 3) Improving the quality of life and competency of students. To gather data to support the model, the directors of Wat Sri Suphan Municipal School, Si Ping Muang Municipal School, and Tha Satoi Municipal School were consulted. Each school had one director, bringing the total to 3 people.

1.4 Data were analyzed by finding the mean and standard deviation, and present the results in the form of tables accompanying the description. Using 5 levels of criteria for interpreting results.

Step 2 Development of an Academic Administration model using digital technology to enhance the quality of life and competency of underprivileged students in the municipal community.

2. 1 The information group of providers used in expert- based seminars (Connoisseurship) to check the format and a manual for using the participatory academic administration model Obtained through purposive selection, including 10 qualified people with knowledge Expertise, and experience in academic administration.

2.2 The instruments used to collect research data are the model quality check form and quality inspection form of the model user manual passed a quality check by 5 experts who helped check the language clarity and appropriateness of the questions topic.

2.3 The information gathered during this step can be divided into two subtypes:

2. 3. 1 Organizing a workshop to implement a proper framework and issue instructions for the operation of the Academic Administration model that's built on the foundation of digital technology. The workshop was attended by the Department of Education of Chiang Mai Municipality whereby Purposive Sampling was used to select scholars from the institution of education who are experts in the field of Academic Administration on a digital platform. The sample group consisted of the top executive of the Department of Education of Chiang Mai Municipality, the Director and 2 Deputy Directors, 36 educators, and 5 representatives from the Education Committee, bringing the total number to 46 people.

2. 3. 2 Employing Connoisseurship to verify the model and guidelines of the usage of the digital academic administration framework. Purposive Sampling was used to select experts in the field and included 5 academic scholars from the institution of education who are experts in the field of Academic Administration on a digital platform and 5 administrators from the educational institution who have an academic standing, bringing the total number of people in the sample group to 10.

2.4 Data were analyzed by finding the mean and standard deviation, and present the results in the form of tables accompanying the description. Using 5 levels of criteria for interpreting results.

Step 3 To study the outcomes of using the digital- based model of academic administration to improve the quality of life and competency of underprivileged students in a Municipal Community. To do so, the digital model and its guidelines for usage were implemented in the school for a duration of one semester. The study of the outcome can be divided into 3 sub-steps:

3.1 The informants' group in the study of operating results according to the model included the personnel of Wat Sri Don Chai Municipality School consists of 2 deputy directors of the educational institution, 36 teachers, a total of 38 people.

3. 2 The instruments used to collect research data are the personnel digital skills assessment form, the assessment of teachers' abilities in organizing competency-based learning with an IOC value between 0.80 - 1.00, the assessment of the quality of life of underprivileged students in urban communities with the reliability value for the whole version was equal to .87, and the student competency assessment form with the reliability value for the whole version was equal to .81.

3.3 The information gathered during this step can be divided into four subtypes:

3. 3. 1 Doing a test run of the digital- based academic administration model and guidelines at Wat Si Don Chai Municipal Community School. The target group for the

implementation of the framework and guidelines were 39 personnel from Wat Si Don Chai Municipal Community School.

       3. 3. 2 Observation, follow- up, and evaluation of the results obtained from conducting the test run of the model and guideline of the digital-based academic administration at Wat Si Don Chai Municipal Community School. The informant group was personnel who observed, followed up, and evaluated the trial run and satisfaction of the model. The group consisted of 36 teachers and 5 representatives from the Education Committee, bringing a total to 41 people.

       3. 3. 3 Examining the digital skills of the school personnel and studying the ability of teachers to manage lessons that focus on competency when using the digital- based model and guidelines for academic administration that aims to improve the quality of life and competency among the underprivileged students at Wat Si Don Chai Municipal Community School. The informant group who provided data to reflect the result of the usage of the model were 43 personnel from Wat Si Don Chai Municipal Community School.

       3. 3. 4 Evaluation of the quality of life and competency of students from Kindergarten 1 up to Mathayom 3 for the second semester of the year 2021. These students were identified by the Wat Si Don Chai Municipal Community School to be underprivileged. The total number of students evaluated was 247.

       3. 4 Analyze data to compare operating results by converting the data to percentages and finding the difference in percentages between before and after operations according to the model.

       Step 4 To determine the satisfaction among participants who operated based on the model and guidelines for a digital-based academic administration to improve the quality of life and competency among underprivileged students in a Municipal Community.

       4. 1 The informant group was the personnel of Wat Sri Don Chai Municipality School consists of 2 deputy directors of the educational institution, 36 teachers, a total of 38 people.

       4.2 The instruments used to collect research data is the satisfaction assessment form for operating according to the model with an IOC value between 0.80 - 1.00.

       4. 3 Data collection was carried out with a satisfaction assessment form on the digital-based academic administration model with the group of informants after the model was completed until the process was completed.

       4. 4 Data were analyzed by finding the mean and standard deviation, and present the results in the form of tables accompanying the description. Using 5 levels of criteria for interpreting results.

Results

1. The preliminary data involved in the development of a model of academic administration that uses digital technology as its base to enhance the quality of life and competency of underprivileged students in a Municipal Community, it was revealed that the school personnel had a medium level of usage of cloud technology to store the body of knowledge and important documents related to the development of a curriculum that fulfills the student's needs and interests. Moreover, there was an overall significant issue in the usage of cloud technology, and finally, the need to develop in this area was at the highest level of requirement. Another key part of the model is using websites to support the teacher's role of compiling lessons and using them as a medium to convey knowledge to the students in a way that interests them. From the study, it was revealed that there was a significant level of usage of websites among school personnel. However, there was also a high level of issues in using websites and the need to develop in this area was at the highest level of requirement. The third factor is using social media and other sites to explore information in the field of research and troubleshoot student issues, manage classrooms, and evaluate their performance via exams. It was revealed that the school personnel were using social media and other sites at a medium level and there were significant issues in usage. Thus, this resulted in a high need to develop further in this area. Next, there was a medium level of usage among school personnel of mobile applications to store digital information and use multimedia to encourage learning. Moreover, there was also an overall significant issue in the usage of mobile apps, thereby resulting in the need to develop in this area at the highest level. Using social media to build a network and to find third-party sponsors to create a learning center and to help underprivileged students is also an important component of the digital academic administration model. The results revealed that the school personnel used social media at a medium level and that there was a high level of issues in this area. Thus, there was also a great need to develop further in this component. Lastly, the use of social media and websites to reflect the overall impact on both qualities of life and competencies of regular students and disadvantaged students revealed that the staff faces significant operational issues, a high level of overall problems, and a pressing need for development.

2. The digital-based academic administration model was designed and developed to enhance the quality of life and competency among underprivileged students in a Municipal Community. It is not only highly appropriate for usage at the school but is also very feasible and has the highest benefits. It contains 6 components as follows:

Component 1: The basic principles of the model include: 1) An academic administration that has participative management and that focuses on empowerment can be achieved by creating a sense of trust among administrators, personnel, and the community. 2) An efficient academic administration requires utilizing digital technology as a foundation for managing and developing the competencies of personnel towards excellence by managing complex data, and use for advancement of student competency. 3) Managing digital technology for learning includes using social media to support inquiry-based learning and facilitate communication and collaboration among personnel in the school. 4) Management of learning focuses on student competency and improving the quality of life of underprivileged students in a Municipal Community requires the preparation of a curriculum and learning that is in conformity with the needs of the underprivileged students. 5) Management of learning that emphasizes competency and enhancing the quality of life of underprivileged students in a

Municipal Community requires establishing networks and external support resources in order to be equipped and ready to use technology in learning.

Component 2: The objectives of the model can be divided into four types: 1) To employ digital technology to support learning and to develop digital skills of personnel to manage competency-based learning that enhances the quality of life of students. 2) To use digital technology to aid in learning and the development of teachers' ability to manage learning in a way that enhances students' quality of life. 3) To employ digital technology to track, evaluate and improve underprivileged students' quality of life at Wat Si Don Chai Municipal Community School. 4) To use digital technology to track, evaluate and improve underprivileged students' competencies at Wat Si Don Chai Municipal Community School

Component 3: The functioning system and protocol of the model can be divided into three distinct parts: 1) The Participative Management System where the administrators of the educational institute issue the protocol for the model's operation for the teachers, parents, community, and the Education Department Committee. They play a role in collaboratively planning the school's curriculum and learning objectives, keeping the students as the primary focus. The model also requires a willingness to work together to ensure that the processes happen in a methodological manner. Moreover, the proper functioning of the model also requires the participation of the stakeholders in the decision-making process and allows them to also be a part of the operation of the model, ensuring that they receive proper information about the beneficial outcomes of the model and also be part of the evaluation. 2) The Empowerment building system whereby the administrators of the educational institute ensure the smooth propelling of creating a sense of empowerment by assigning roles, laying clear sets of rules to carry out one's responsibilities in an excellent manner, organizing further training and development, providing up-to-date knowledge and feedback and approving requests. Moreover, they should exhibit qualities of trustworthiness, acceptance of mistakes, and respect towards those who are involved in the decision-making process. These are the roles and qualities that administrators should possess in catalyzing positive changes in the educational institute and that will impact teaching practices. This includes carrying out one's responsibility to ensure proper management of learning and building a network based on relationships and connections that involve both parents and communities, with the teacher playing the role of cooperating with parents to develop and resolve key issues to help build good character among students. The students will then possess competency and have a quality of life that meets the standards and objectives set by the school. 3) The final objective of the model is a system that supports the usage of Digital Technology to aid in learning. The catalysts of this system are the directors and teachers of the institute, who will ensure that the usage of digital technology in the classroom can help children develop desirable characteristics, competency, and good quality of life as aligned with the objectives set by the educational institute. To do so, they can use cloud technology to store the body of knowledge and important documents related to the development of a relevant curriculum that engages the students. Another technique is to use websites that can help teachers create effective lessons and teach certain topics in a way that interests the students. Furthermore, using social media and other websites to collect data for research and troubleshoot issues that students face is also a way through which digital technology can be used in the classroom. Teachers can also employ digital technology to manage the learning outcomes in a class and to evaluate the students' performance. Moreover, the usage of mobile apps to store digital information and use multimedia to encourage learning is an important aspect of the model too. Using social media to build a network and to find third-party sponsors to create a learning center is also part of the model. Finally, the system requires

using social media and the Internet to reflect the impact on both the quality of life and competency of normal and underprivileged students in the line of education.

Component 4: The implementation of the framework can be divided into six steps as shown below: 1) Developing an educational curriculum that emphasizes competency is a type of academic management that promotes the development of not only the school curriculum but also the curriculum of specialized and short-term subjects. It focuses on enhancing competencies and improving the quality of students' lives, reducing disparities, and helping disadvantaged students to realize their full learning potential. It aligns with the needs of society, communities, and the country. The process of developing a curriculum for all personnel to have a part in includes: 1.1) Analyzing the environment and assessing the school's situation to establish a vision, mission, goals, and desired goals, with the involvement of all parties. 1.2) Developing a curriculum structure that aligns with the vision, mission, and desired goals, while integrating content within and across subject areas based on relevance and appropriateness. 1.3) Implementing the curriculum in teaching and managing it effectively and appropriately. 1.4) Monitoring, evaluating, and continuously improving the curriculum to ensure its relevance and suitability within the context of the school. 2) The development of learning management that emphasizes digital technology and online tools. This is a form of academic administration that can help teachers generate learning plans that use digital technology and online resources that contain all the topics learned in class. The online resources created by the teacher will then allow the students to access them again if they are in confusion about a topic or if they have missed a class due to situations where they must help out their parents earn a daily living. Having easy access to online materials for classes ensures that the students don't lag behind in their studies even though they miss some classes. The steps required for all personnel in developing a learning management plan that is online and digital-based are: 2.1) Implementing policies that help teachers in designing a learning plan that is aligned with the student's level and interest and also instills good virtues and values and helps in the development of character. It should also enhance the quality of life and competency of learners. 2.2) Creating an atmosphere and body of knowledge that is in favor of active learning. 2.3) Using local wisdom or connections with parents, community, and stakeholders to help manage the process of learning in a suitable and relevant manner. 2.4) Organizing classroom observations for teachers to participate in learning and providing friendly guidance and suggestions for collaborative learning and teaching development, as deemed appropriate. 2.5) Supporting teachers in their continuous professional development to enhance their ability to design effective learning and classroom management techniques. 3) Promoting research to address the needs of underprivileged students is another part of the academic administration. It consists of the following steps that should be followed by all personnel: 3.1) Instructing teachers to analyze the key issues that underprivileged students face in their homeroom classes. 3.2) Organizing group activities that aid in the development of research topics that focus on resolving the problems faced by underprivileged students by integrating teaching and learning with the creation of career opportunities and supplementary income for students during their studies. 3.3) Organizing workshops that develop learning activities in each subject area by integrating them with strengthening local communities. Research can focus on developing short-term curricula or learning units that incorporate vocational skills relevant to the local area, providing students with increased opportunities for employment and income generation for their families. 4) Developing a media and learning center that focuses on skill development. This process involves the research and development of innovative media and resources that are directly related to the management of academics in order to develop essential skills among students that could enable them to help their families create additional careers and income. The emphasis

should also be on resources and mediums that conforms to the locality. To develop this media and learning center requires the following steps: 4.1) Study and analyze the necessity of using media and learning resources for teaching and academic management. 4.2) Promote teachers to produce and develop media and innovative teaching methods. 4.3) Source media and technology for use in teaching, learning, and academic development. 4.4) Promote the joint collaboration in the production, sourcing, development and utilization of media and technology in an innovative manner for academic management. Moreover, it also involves the advancement of the academic administration among educational institutions, individuals, families, organizations, departments, and other institutions. 4.5) Evaluation of the outcomes of using innovative media and technology in teaching and determining whether they're successful or not. 5). Building a network to assist underprivileged children is a process that involves the utilization of various resources by the educational institute that would help the underprivileged and other students to have easier access to knowledge and media centers that fulfill the learning needs and is appropriate for them. In order to develop this network in practice, the following steps are required: 5.1) Collecting information from parents, government agencies and relevant documents that would aid in the development of students both in and outside the educational institutes. 5.2) Compiling documents that disseminates information about funding sources and resource support that teachers can access and use if they wish to coordinate with some of the sponsors to receive support. 5.3) Establish and develop a learning and knowledge center to aid in the advancement of collaborative learning that is more efficient and economical. 5.4) Promote and support the teachers to use the learning centers both in and outside the schools so that they can manage the curriculum that encompasses local wisdom. 6) Empowering Supervision involves instilling willpower, mindfulness and discipline while ensuring the continued development of academic management techniques for the teachers. To reach this objective, the following practices should be observed: 6.1) Creating a supervision system in the academic and teaching departments within the school. 6.2) Operating the supervision system in a diversified manner that is appropriate for the school. 6.3) Evaluate the process and outcomes of implementing the supervision system within the school. 6.4) Follow-up and coordinate with the local education department to develop and process a supervision and teaching system for the educational institute. 6.5) Exchanging ideas and experiences and implementing a learning support system not only within the school but also in other schools or learning support institutes in the area.

Component 5: Methods to evaluate the outcomes of the model incorporates the use of rubric scoring, which can be divided into four types: 1) Assessing digital skills among the school personnel 2) Assessing teacher's ability in the management of learning that focuses on student competency 3) Assessing the quality of life of students and 4) Assessing and evaluating students' competencies.

Component 6: The conditions and restrictions of utilization of the model are as follows: 1) The development of the curriculum at Wat Si Don Chai Municipal Community School will take into account the latest guidelines laid by the Head Office of the Basic Education and follow the policies implemented by the Ministry of Education (2003). The policies and guidelines clearly define goals for student competencies, learning outcomes and course duration. 2) The head of the academic administration department should possess the following qualities: 2.1) Having a vision and the ability to lead the school towards collaborative administration. 2.2) Possessing the leadership qualities to facilitate the transformation towards competency-based learning. 2.3) Being dedicated, willing to make sacrifices, having a strong will power and ideologies that dictates to being a professional leader. 2.4) Possessing knowledge and experience in collaborative academic administration, with notable achievements. 2.5) Having

the ability to mobilize resources to efficiently manage academic affairs and achieve greater results. 3) Being dedicated as the administrator to build networks that allow collaborative development of the academic administration. This includes promoting collaboration with parents, students, community leaders and other organizations that are important sources of knowledge to develop competency among students and also are a source of funding of resources to aid the education of underprivileged students. 4) Support from affiliated agencies that promote the use of digital technology in the academic administration to enhance the quality of life and increase competencies among students who are underprivileged in the Municipal Community. This includes supporting and distributing power to schools so that they are better equipped in the field of academic management and that they have a proper budget for the procurement of technology. 5) Affiliated agencies can be a source of motivation for administrators, teachers and other personnel within the school and allow them to have the will power to manage academics. Moreover, it will also empower the other personnel within the school to continuously adapt the curriculum to changing times.

Based on the 6 components of operation of the model described in this paper, the following PED model simulation can be generated.
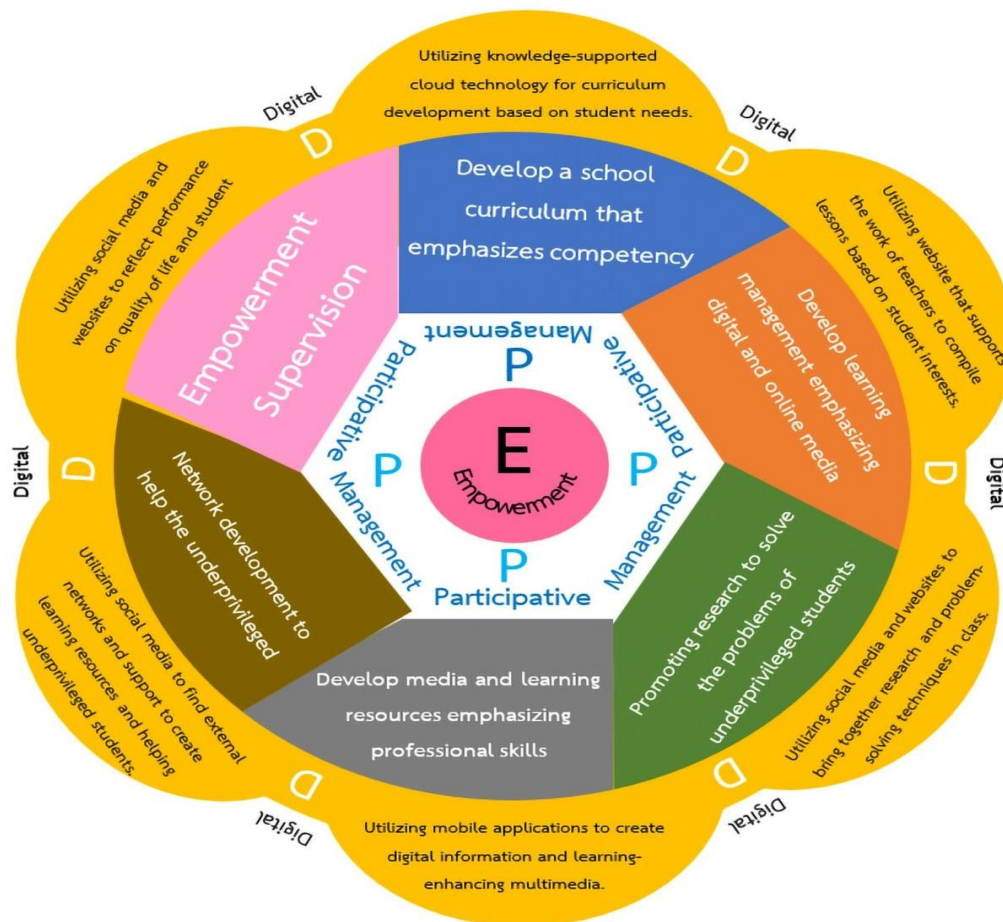
Figure 1 The Digital-Based Academic Administration model to enhance
the quality of life and competency among underprivileged students

3. A study of the results of operations according to the digital-based academic administration model found that personnel have digital skills and the ability to manage learning that emphasizes competency on average has increased. Regarding students from underprivileged groups in urban communities Quality of life and average performance increased at every level. As shown in Table 1.

Table 1 Comparison of results between before and after the implementation of the digital-based academic administration model

Evaluation list	%Before	%After	%Progressive
1. Personnel			
- Digital skills	69.57	81.07	11.51
- Ability to organize competency-based learning	73.6	87.2	13.6
2. Students in underprivileged groups in urban communities			
- Quality of life	62.38	71.48	9.10
- Competency	66.74	71.95	5.21
Total	68.07	77.93	9.86

4. Results of the satisfaction with the operation of the digital-based academic administration model to enhance the competency and quality of life of underprivileged students at Wat Si Don Chai Municipal Community School revealed that overall, the school personnel were satisfied at a high level with operating under the guidelines of this model. As shown in Table 2.

Table 2 Results of the satisfaction with the operation of the digital-based academic administration model

Satisfaction issues	Mean	S.D.	Interpret
1. Preparation for academic administration	4.54	0.57	Highest
2. Academic administration operations	4.45	0.60	High
3. Achievement results from academic administration	4.33	0.66	High
Overall	**4.44**	**0.61**	**High**

Discussions

      1. A study of the preliminary data required in the development of a digital-based model of academic administration revealed that there was a high to highest level of need to implement this model among the school personnel in the following 6 areas: 1) Using cloud technology to store knowledge and relevant data that would be resourceful in creating curricula that satisfies the needs and interests of students. 3) Using websites that aid teachers in generating lessons and instructional media according to students' interests. 3) Using social media and other sites to gather data for research, solve student problems, manage learning, and evaluate learning outcomes via examinations. 4) Using mobile applications to create digital information and learning-enhancing multimedia. 5) Using social media to find external networks and support to create learning resources and help underprivileged students and 6) Using social media and other sites to reflect the outcomes of the model on underprivileged students' quality of life and competency. The results from this study are similar to the research carried out by Dhammaviriyo et al. (2021) who revealed in his study that some of the education personnel of the institute lacked proper knowledge in using various forms of multimedia that are appropriate for students in their teaching. This includes the usage of software and applications such as Zoom and Google Meet to store important announcements and resources for the class and carry out meetings, allowing students to independently study online. Additionally, it was also found that incorporating the use of technology as an instrument to enhance the quality of students resulted in ease of management of lessons for both teachers and students. However, the teachers still had some doubts and concerns about developing digital knowledge and skills because it is something that is always changing and evolving. This is also reflected in a study conducted by Ngamkanok (2021), where it was explained that the school administration needs to develop a learning culture that takes into account today's digital technology and exhibits the qualities of a responsible citizen to aid in the evolution of the digital era. Moreover, the results are also aligned with the research conducted by Machek (2022) where it was found that the proper management of information and communications technology in schools requires acceptance from relevant personnel about the changes that it would bring about. It also requires supervision, follow-up, and support of technology for classroom and lesson management by teachers and for independent learning by students.

      2. The outcomes of developing the digital-based academic administration model to enhance the quality of life and competency among underprivileged students in a municipal community resulted in the creation of a model that consists of the following six steps: 1) Developing a school curriculum that emphasizes competency. 2) Develop a classroom and learning management system that is built on online and digital platforms. 3) Promoting research to identify and solve the issues faced by underprivileged children. 4) Developing a communication and resource center that focuses on building vocational skills. 5) Building a network to aid underprivileged children. 6) Empowerment based supervision. It was found that this model has a high level of appropriateness, a high level of feasibility, and the highest level of benefits. This is because the digital-based academic management system that's developed has components that conform to the concepts and principles of Participative Management, Empowerment, and Digital Technology. Moreover, the process of building the system and its mechanisms requires the involvement and trust of personnel, parents, and the Education Committee, as it will aid in further improvement of the quality of life and competency among students in general and also for underprivileged students. The results are similar to the research conducted by Gamage (2022) who found that the school director should invoke a sense of trust

among the stakeholders of the school and should strive to be a balanced representative of the Advisory School Council. Additionally, Gamage (2022) also used the principles of empowerment as a backbone of academic administration. This promoted the collaboration of personnel in completing academic tasks and expanding their knowledge about digital technology. In the process of instilling a sense of empowerment, the personnel became better at decision-making and also invoked the head of teachers to have better initiatives and the courage to make big decisions. The outcomes of the model also conform to the research conducted by Ertürk (2022) where it was revealed that the school director's attitudes toward developing ability play a very important role in molding the teacher's perception of feeling included in the organization. This, in turn, would result in an accumulation of leadership qualities, benefiting the administration of the educational institute immensely.

3. The results of the effects of running the digital-based academic administration model to enhance the quality of life and competency of underprivileged students in a municipal community are shown below: 3. 1) The digital skills of the personnel improved after implementation. The reason is due to the model acts as an empowering source for teachers to develop a classroom management system that focuses on online and digital resources. Thus, it motivated teachers to put continued efforts to further their knowledge by using technology and online sources of communication to help in teaching and learning. As a result, the teachers gained more skills in the digital area. These findings conform to those obtained by Ngamkanok (2021), where it was revealed that the school administration needs to adapt to the changing times and introduce the utilization of Information Technology to help with administrative tasks. The results also reflect the opinions of Machek (2022), who explained that the school's administration in the digital age has an important role in developing an administration system that elevates the quality of education for students via the usage of information and communication technology. 3.2) The personnel's ability to manage competency-based learning increased. Because the model that was implemented focused on the development of a school curriculum that focuses on competency. It focused on the management of developing subject-based curricula and short-term curricula to developed was to improve competency and enhance the quality of life among underprivileged students, reducing disparities and maximizing their learning potential. It would also allow the school to focus on the practical application of knowledge by students and enable them to integrate the knowledge into different, specialized fields where they can further hone their practical knowledge and skills to achieve success in their practice. These findings are aligned with the research conducted by Ramazan Ertürk (2022) where it was found that the school director's attitudes toward developing ability play a very important role in molding the teacher's perception of feeling included in the organization and that it allows the teachers to continually fulfill their potential. 3.3) Upon comparing the quality of life of the underprivileged students at Wat Si Don Chai Municipal Community School, it was found that the overall quality of life improved for all grade levels. This is attributed to the process of promoting research to resolve critical issues faced by underprivileged children and also due to building a network to help the underprivileged. The implementation of the model emphasized resolving key problems and assisting underprivileged students, whereby the system and its processes included the participation of all parties. This shows that an academic administration that focuses on enhancing the students' quality of life allows every subject group to be aware of their responsibility in identifying the problems faced by students and actively searching for solutions through practical research in the classrooms. Apart from that, an Empowerment Supervision system also plays an essential role in boosting confidence among teachers and helping them become leaders in creating a learning framework that integrates with the support system for the students. These findings are also reflected in the

study conducted by Wongsuwan & Siriwan (2017), where it was found that a collaborative administration can help the organization function in a smooth manner where everyone has a sense of love and loyalty towards the organization. A collaborative and inclusive administration also creates a positive environment where everyone is responsible for the tasks they have to carry and comes up with plans involving collaboration as a team to raise the organization's capacity. This enables the administration to gain acceptance and trust from the employees, who feel inspired and motivated to work, thereby creating a good relationship between the two parties. It also makes room for acceptance of change and continued efforts to develop the administration to enhance the team's potential. 3. 4) Comparing the competency of underprivileged students at Wat Si Don Chai Municipal Community School revealed that overall, student competency increased for all grade levels. This is due to the competency-based education curriculum development and also the development of teachers to have the ability to manage competency-based learning. This increases student potential, reduces disparities, and assists underprivileged students in reaching their full potential in terms of education. These findings are similar to the ones found by Ramazan Ertürk (2022), where it was mentioned that an administration that focuses on collaboration invokes leadership qualities among the personnel and also has a positive impact on one's perception of being an inclusive part of the organization. It also results in continued expansion of teachers' abilities and overall, an administrative academic system that focuses on enhancing every student's competency via competency-based learning. Moreover, an administration that promotes collaboration and inclusivity in curriculum designing, development of learning, and being a part of the Empowerment Supervision system allows the teachers to have a sense of leadership in generating learning plans that continuously develop competency. This conforms to the results obtained by Wongsuwan and Siriwan (2017), where it was revealed that the benefits of a collaborative administration include the smooth operation of the organization and the creation of a sense of loyalty among the administration. Moreover, it also leads to an environment that invokes a sense of responsibility in carrying out and coming up with plans that result in increased organizational effectiveness. This enables the administration to gain acceptance and trust from the employees, who feel inspired and motivated to work, thereby creating a good relationship between the two parties. It also makes room for acceptance of change and continued efforts to develop the administration to enhance the team's potential.

4. The results of evaluating the satisfaction of operating based on the model revealed that the school personnel was overall very satisfied with the utilization of the model. This is because the model resulted in an increased knowledge and understanding of the theoretical principles of the model among the school personnel. The teachers were then able to see the student's progress and take pride in them as their quality of life increased due to vigorous collaboration. These findings are also reflected by Gold (2000, p. 295), who revealed that community involvement serves as a mediator between parents, families, and schools to enhance literacy skills and to spread knowledge that aligns with the community's needs. It then enabled parents to gain awareness about the community, resulting in partnerships and collaborations between parents and schools to create valuable resources within the society and the school culture.

Conclusion and suggestions

1. The administrators should be a learning opportunity that invokes a sense of togetherness and motivation to drive the academic administration to achieve tremendous success.

2. To incorporate digital technology into the academic administration, it should build an online community to provide the latest news for people and ensure that the personnel understand the organization's goals. It should provide encouragement and recognition for the accomplishments of the staff and foster ongoing learning and development.

3. Using the digital-based academic administration model to improve the quality of life and competency of underprivileged students in municipal communities involves the participation of all parties should contribute by recognizing and providing recommendations for curriculum development, teaching and learning improvement, and addressing the challenges faced by underprivileged students at every stage of the operation. This collaborative approach ensures effective and genuine management and administration.

4. Further research and development of the digital-based academic administration model include expanding its impact to other areas such as human resource management, budget control, overall management, student support system, and student development activities. This will create a suitable framework for enhancing underprivileged students' quality of life and competencies and bring long-term benefits to the school.

5. It is also recommended that the digital-based academic administration model be applied to enhance underprivileged students' quality of life and competency in other schools located in the Chiang Mai Municipal area. This will allow for improvements and adjustments to the model, making it more suitable and innovative for future educational advancements.

New knowledge and the effects on society and communities

A digital-based academic administration to enhance the quality of life and performance of underprivileged students in urban communities. There must be a system and operating mechanism for educational institution administrators in academic administration so that personnel, parents, communities, and networks outside educational institutions can contribute to promoting the quality of life and performance of underprivileged students in urban communities. It is divided into 3 parts. including systems and mechanisms for participatory management, systems and mechanisms of empowerment, and systems and mechanisms to promote the use of digital technology.

Acknowledgments

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11

Development of Management Guidelines of Inclusive Education in Special Education Center, Petchabun Province

Kittiwin Dhedchawanagon, Supranee Pitsamai and Nittaya Nak-in

Faculty of Education, Phetchabun Rajabhat University, Thailand
E-mail: kittiwin.dhe@pcru.ac.th, supranee.pit@pcru.ac.th and nittaya.nak@pcru.ac.th

Abstract

In order to send children with special needs into inclusive education, the objectives are to 1) examine the components and indicators in inclusive education for educational institutions at the Phetchabun Special Education Center, 2) current conditions and desired conditions in providing inclusive education for educational institutions at the Phetchabun Province Special Education Center, and 3) developing guidelines for organizing inclusive education for educational institutions at the Phetchabun Province Special Education Center. The sample groups used in this study were personnel of the Phetchabun Provincial Special Education Center, including 3 school administrators, and 33 teachers, totaling 36 people in the sample. However, the sample size was determined according to the table of Krejcie & Morgan (1970), and the stratified random sampling technique was used, which used location as the random unit. This research is research and development, a questionnaire on the existing and ideal circumstances of inclusive education for special education centers in Phetchabun Province, as well as a form to evaluate the suitability of the components and indicators of inclusive education, are among the tools used for data collecting. According to the study's findings, the Phetchabun Provincial Special Education Center's guidelines for organizing inclusive education for educational institutions have a significant impact on the development of inclusive education formats. These recommendations cover the elements and indicators, as well as the intended and actual circumstances as well as inclusive education organizations. It has a policy to provide educational services to children with special needs who need education in the form of inclusive learning in order to expand their educational opportunities. The information obtained can then be used as information in planning education for children with special needs, as well as a guideline for organizing education for children with special needs to be carried out efficiently, in accordance with the guidelines for cooperation in providing education for persons with special needs as per the policies of the Ministry of Education.

Introduction

"Special education" refers to the provision of education for students with physical, mental, intellectual, emotional, social, communication, and learning disabilities, as well as those who are physically disabled or handicapped, unable to rely on themselves, without a caregiver, or who have the opportunity. With curriculum and material geared on educating kids for daily living as well as academic skills, special education focuses on strengthening fundamental social, communication, and cognitive skills. As a result, special education offers instruction and services to three categories of persons with exceptional educational needs; 1) children with special abilities, 2) children with learning difficulties, and 3) underprivileged groups in need of particular support. The latter two groups, which are frequently met in the educational system and should be adequately aided in order for the kid to develop correctly, are the group that is frequently cited in discussions about special education. (Achinsamacharn, 2020) The information obtained can then be used as information in planning education for children with special needs, as well as a guideline for organizing education for children with special needs to be carried out efficiently, in accordance with the guidelines for cooperation in providing education for persons with special needs as per the policies of the Ministry of Education. In contrast to being marginalized and perceived as unequal, this enables these individuals to fulfill their potential and contribute to the growth of the nation. For countries that have implemented this matter, such as The United States enacted special education laws for the first time since 1975 (Education for All Handicapped Children Act of 1975), before it was revised again in 1997 by changing the name to the Individuals with Disability Education Act-IDEA, Amendment of 1997. This law's main purpose is to identify the categories of people with disabilities, which include people with restricted learning capacities, people with intellectual, physical, or emotional impairments, and those who have left the educational system between the ages of three and twenty-one, to address this population, schooling must be arranged by the local government. Additionally, it's critical to stress that kids receive their education in a suitable setting, placing a strong emphasis on studying alongside regular students wherever feasible, and developing individualized programs for each student. Even Japan has developed a national curriculum for both normal and special needs children. The Ministry of Education has also established disability criteria, which are then screened for suitability, children with high levels of disability attend special schools, while only those with low levels can attend regular classes. Local officials will also conduct surveys and offer educational guidance to families with special needs children in the area. (Nonthikorn, 2009) Similar to New Zealand, where there is no legislation that specifically addresses special education, it is mandatory for the state to provide education to children between the ages of 5 and 19 regardless of whether or not they are disabled. Additionally, an agency is responsible for managing special education, particularly for children and families who have special needs, and putting a strong emphasis on co-learning.

There are three types of special education arrangements in Thailand; 1) co-learning - both full-time, meaning they study together all day, and co-learning exclusively in specific areas allows children with special needs to study alongside typically developing youngsters, 2) the establishment of schools and learning centers specifically for special education - this is a format organized for kids with special needs in every specific way, like a school for the deaf, a school for the blind, or organized in classes, only study in regular schools, like special kids classes, and 3) the rotation of special education instructors around schools or learning centers

for joint study is a model for places where there is a lack of special education teachers or a low number of students with special needs. (Chonthanon, 2003)

It was discovered that there is still misunderstanding among parents of children with special needs. These parents frequently believe that their kid is incapable of learning and is unsuited for school, they are also frightened of their child being bullied or chastised by instructors, and therefore they are reluctant to send their children to school. In truth, co-education provides a number of benefits, including the following; 1) co-education encourages parents to have a positive outlook on their kids, believe in their ability to grow, and ignore their many flaws so that the patient has more possibilities to express himself, 2) because there is no need to pay specialized instructors to care for children with special needs, co-education lowers the expense of caring for such children, 3) co-education helps children with special needs reach their full potential because it enables them to better explore their own potential, which may later benefit the school, community, and country. (Garry & Chrystal, 2010) When children engage in activities with other kids, learning occurs, and if a kid shows an interest in a certain activity, teachers can help foster that interest and watch it grow over time, 4) co-learning teaches students about individual differences, how to get along with others, how to be kind, thoughtful, and willing to assist others who are less fortunate, 5) inclusive education teaches kids how to live well with others while preventing prejudice based on differences or impairments, 6) by encouraging life skills, social integration, and adherence to school norms and regulations, joint learning fosters the peaceful coexistence of persons with special needs and those who are typically able-bodied, and 7) co-education demonstrates that children with special needs can live together regularly in society and aids the general public in comprehending the tales of children with special needs. Even if parents have children with special needs, there are now more possibilities for education, so they may seek assistance and help from local schools and provincial special education centers to continue finding a place to study that is acceptable for the kid.

Through the implementation of inclusive learning, which places students with disabilities in regular classrooms, education for individuals with disabilities has experienced a transformation in terms of policies and procedures. The goal of inclusive education is to provide learning opportunities for both typical and disabled students. It does this by organizing teaching and learning activities in a flexible way that can be modified based on the individual student's needs and learning style. Providing chances for social interaction amongst students and friends who are different, simple access to the general curriculum, and academic advancement for both normal and handicapped children are just a few of the numerous benefits of inclusive education. Effective inclusive education has both immediate and long-term advantages for all students, but it is especially beneficial for kids with disabilities as it allows them to learn alongside their peers. Numerous studies have shown that students with special needs who attend inclusive schools perform on par with or even better than students who attend schools for people with disabilities, and they also get to enjoy social contact with their friends. The long-term benefits are as follows: society wants every child to grow up to be a quality adult who can live, work, and socialize with friends in the community happily; without opportunities to learn and grow with diverse, normal peers throughout their lives, individuals with special needs will never achieve this goal as they grow into later adulthood. If you study in a school that specializes in disabilities, you will miss out on this opportunity.

In this regard, the Phetchabun Provincial Special Education Center, the cabinet passed a resolution on July 6, 1999, approving the operational strategy and administration project of providing education for persons with disabilities, as well as the guiding principles of measures to provide for people with disabilities. It informed the Provincial Special Education Center that

it is a school for persons with disabilities with the responsibility of putting policies into practice and creating and allocating money to educational institutions. Additionally, they collaborate with neighborhood organizations to deliver treatment and rehabilitation programs, education services, and run a referral system for neighborhoods and schools. According to a statement made by the Ministry of Education on July 31, 2000, the Phetchabun Provincial Special Education Center was established. Its responsibilities include initial assistance services, preparing students for training in all skill areas, and rehabilitation in accordance with the steps in the student's individualized education plan. Sending to the system of educational institutions to provide resources, media, services, and any other help in education for people with disabilities, staff who provide education for people with disabilities, organize educational information systems for people with disabilities, organize a system support the provision of inclusive education, and coordinate the provision of education for people with disabilities in Phetchabun Province. However, Phetchabun Provincial Special Education Center has a service area, by the service area of Phetchabun Provincial Special Education Center Providing services covering an area of 11 districts. (Dhedchawanagon, 2023)

According to the information above, it is clear that providing inclusive education for kids with special needs requires setting up rules for doing so, this plays a critical role in the advancement of education for kids with special needs. Therefore, the researcher as a person who performs work related to education and is involved in organizing inclusive education together with administrators and teachers within the Phetchabun Provincial Special Education Center in order for educational institutions under the Office of the Basic Education Commission to have the same standards in organizing inclusive education. They are regarded as crucial members of staff who play a part in organizing, assisting, and supporting the functioning of inclusive education. Since the Phetchabun Provincial Special Education Center sends students with special needs to these institutions for instruction, he is interested in researching the factors and indicators, as well as the current and desired conditions, which will influence the creation of guidelines for organizing inclusive education. In accordance with the guidelines for cooperation in providing education for persons with special needs as per the policy of the Ministry of Education, as well as to be used as information in planning education for children with special needs, as well as a guideline for organizing education for children with special needs to be carried out efficiently.

Objective
1) Examine the components and indicators in inclusive education for educational institutions at the Phetchabun Special Education Center.
2) Current conditions and desired conditions in providing inclusive education for educational institutions at the Phetchabun Province Special Education Center.
3) Developing guidelines for organizing inclusive education for educational institutions at the Phetchabun Province Special Education Center.

Conceptual Framework
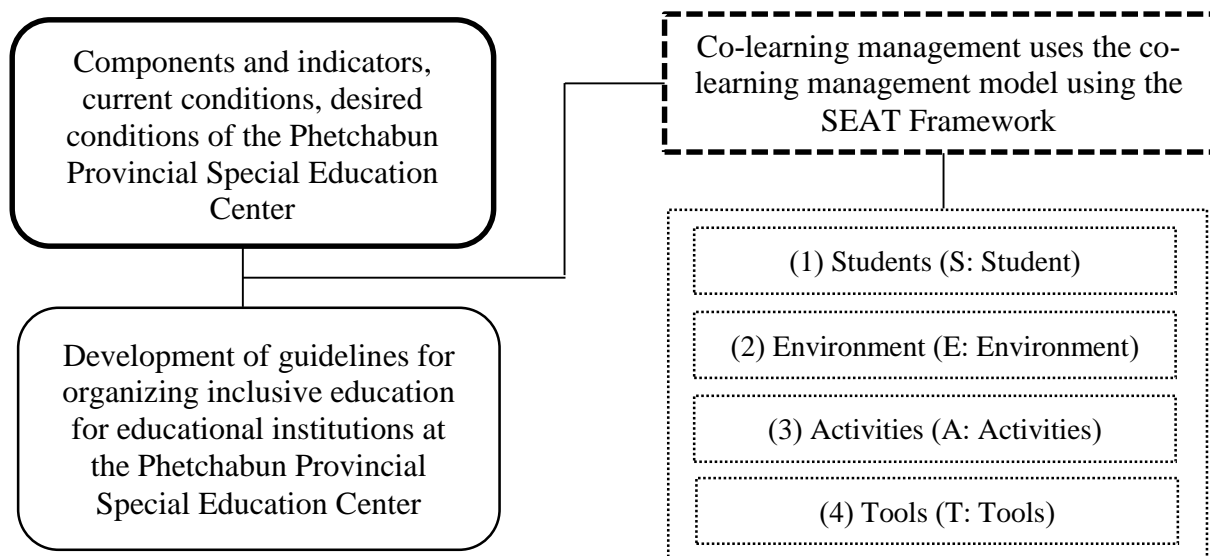
Figure 1 Shows the research concept framework

The Office of the Basic Education Commission has a policy to offer educational services to children with special needs who need to receive education in the form of inclusive education in order to increase educational possibilities. This policy is being developed as a model for inclusive education in Thailand. The majority of schools run by the Office of the Basic Education Commission still follow the co- educational education paradigm, notwithstanding the current shift from co-educational to inclusive education. (Uthairattanakit, 2015) Co-educational management utilizing the SEAT Framework is what it is known as, and the following information is included in research to create additional types of co-educational education;

Regarding the management of joint education using the SEAT Framework, Chanthanon (2003) introduced the joint education management model for use in Thailand, and developed the management structure for joint education using seat structure. In order for educational administrators to effectively manage educational institutions, it must be put into practice in managing schools that offer inclusive learning for both students with special needs and typically developing children. At present, the main schools that organize joint learning use the joint learning management model using the SEAT Framework, which guidelines for managing joint learning using the SEAT structure include;

1) Students (S: Student) : Ought to become ready for pupils with special needs, such those who have mental, emotional, or social impairments. As soon as a handicap is recognized, academic help is supposed to be given in order to maximize the potential of the student in all areas.

2) Environment (E: Environment) : Less restrictive environments (LER) should be used for students with special needs or learning problems, and schools should make every effort to have them take as many general education classes as they can. Schools should modify the environment in accordance with academic concepts, taking into account the circumstances of each type of student's disability as well as the individuals present in the child's surroundings.

Administrators, together with parents, guardians, teachers, and other members of the school community, are the most important people in creating and maintaining a climate of acceptance for children with disabilities or those who have impairments in schools.

3) Activities (A: Activities) : Teaching methods these are educational activities that are done both inside and outside of the classroom that will aid in the social, emotional, intellectual, and physical growth of all students both typically developing and those with special needs, which includes;

3.1) Curriculum management should make the necessary adjustments to the curriculum and develop an individualized education program (IEP), with the creation of supplemental curriculum and the teaching of necessary skills, this education strategy is in line with the unique requirements of children with disabilities, such as life skills, social skills for children with autism, and must create individual implementation plan (IIP), this lesson plan is tailored just for that student, this personalized lesson plan is made to assist students in achieving their specified aims and goals in topics or abilities that need improvement.

3.2) Educational Implementation to gather all data on students' academic, behavioral, and physical performance, this involves making choices on students' referrals, screening, and identification of children with special needs, as well as designing lessons and assessing students' progress.

3.3) Teaching methods that use a variety of teaching methods, such as peer-to-peer analysis of teaching assignments.

3.4) Reporting student success, teachers will employ the technique of evaluating and modifying IEP at least twice a year by keeping track of current student development.

3.5) Planning suitable educational and learning activities outside of the classroom and in the community.

3.6) A quality assurance committee for inclusive education should be established by school quality assurance.

3.7) Admission of kids who are handicapped or impaired to schools, with a transparent admissions schedule.

3.8) Making arrangements for assistance and consultation as well as scheduling time for supplemental teaching services.

4) Tools (T: Tools) : Refers to things that are used as tools for managing inclusive education, which will help students with special needs to learn and live their lives with maximum efficiency. It includes policy, goal, mission, budget, management system, ministerial rules, and assistive technology to support students receiving a high-quality education. Equipment, braille print materials, children's audiobooks, and numerous programs that facilitate the education of persons with various sorts of impairments are examples of educational media. A few examples include textbooks, various academic additional instruction, teaching sign language, practicing speaking and writing in braille, providing occupational and physical therapy, speech correction, and other forms of educational support.

Methodology

Research Methodology

This research is research and development, the researcher has determined the research methods in the phase of studying the current conditions and desired conditions of organizing inclusive education for the Phetchabun Province Special Education Center as follows;

1) Research procedures

1.1) Research inclusive education ideas, theories, concepts, textbooks, papers, and research.

1.2) To provide inclusive education components for educational institutions, analyze and aggregate data from reading materials, textbooks, and related research.

1.3) The components and measures of inclusive education for educational institutions will be examined by five experts.

1.4) Create a questionnaire to investigate the present state and ideal state of inclusive education for special education centers in Phetchabun Province using the findings of the research of the components and indicators of inclusive education.

1.5) Create a set of original questions based on the questionnaire that has undergone confidence testing and use them to gather data from a sample group of 36 educators from the Phetchabun Provincial Special Education Center.

1.6) In order to organize inclusive education for educational institutions, it is necessary to prioritize needs and necessities by analyzing for mean, standard deviation, and finding necessary needs using the method of prioritization and finding differences using the Modified Priority Needs Index (PNI Modified) technique.

2) Population and sample

2.1) Population used in this study Phetchabun Provincial Special Education Center, academic year 2023, includes 3 educational institution administrators and 63 teachers, total population number 66 people.

2.2) Sample group used in this study Phetchabun Provincial Special Education Center, including 3 school administrators and 33 teachers, total sample size 36 people, the sample size was determined according to Krejcie & Morgan (1970) and using stratified random sampling techniques using position as the random unit.

3) Tools used to collect data

3.1) A two-part evaluation of the suitability of the elements and markers of inclusive education;

Part 1: it is a questionnaire on the appropriateness of the components of inclusive education, with a 5-level rating scale, namely the most, a lot, moderate, a little, and least.

Part 2: in this open-ended topic, experts are asked to provide ideas and problems for enhancing the components and metrics of inclusive education.

3.2) Questionnaire in the form of a check list and rating scale on the present state and intended state of inclusive education for the Phetchabun Provincial Special Education Center. The researcher created it by synthesizing concepts, theories, and related research documents, divided into 3 parts;

Part 1: The respondent's status is established by requesting details about their position, positional history, and employment history.

Part 2: Questions about the current condition and desired conditions of inclusive education for the Phetchabun Provincial Special Education Center, with a 5-level rating scale; namely the most, a lot, moderate, a little, and least. (Srisa-at, 2010)

Part 3: Suggestions for organizing inclusive education, in the form of an open-ended questionnaire.

4) Creating and finding quality research tools

4.1) Evaluation of the adequacy of inclusive education's elements and indicators.

4.1.1) Research the guidelines and procedures for developing an assessment form with a rating scale.

4.1.2) Research the ideas, concepts, textbooks, papers, and research that are linked to inclusive education.

4.1.3) Draft assessment of the appropriateness of the components and indicators of inclusive education, defined as a 5-level rating scale which is (5) the most, (4) a lot, (3) moderate, (2) a little, and (1) least, present to the research project advisor to check the correctness or clarity of the language expressions or not.

4.1.4) Present the recently updated assessment form which was made in compliance with the recommendations of the study project advisor to five specialists so that its content validity may be evaluated. The suitability value is only admissible at the greatest and highest levels; therefore, the experts will assess the components and indicators to determine whether they are reasonable and suitable.

4.1.5) Use the assessment form that was taken into account by the experts and then make the suggested changes.

4.1.6) Complete version of the summary of the components and measures of inclusive education for the Phetchabun Provincial Special Education Center.

4.2) Questionnaire regarding the current and desired conditions of inclusive education for the Phetchabun Provincial Special Education Center.

4.2.1) Research includes education-related ideas, concepts, theories, texts, papers, and research methodologies for developing different types of surveys, and the structure and range of instruments used for data collecting.

4.2.2) The developed draft questionnaire is given to the study project adviser for review of the language expressions' correctness or clarity.

4.2.3) The questionnaire should be modified in accordance with the research project consultant's recommendations, and then it should be given to five experts for review in order to be sure the content validity.

4.2.4) The reliability according to the content of the questionnaire has an IOC value at the level of 0.80 - 1.00, all items can be used.

4.2.5) Use the expert-recommended questionnaire and make any necessary changes in accordance with the numerous suggestions and guidelines.

4.2.6) Take the revised questionnaire and try it out with school administrators and teachers who are not in the sample and are similar to the sample of 66 people, divided into 3 educational institution administrators, and 63 teachers. By calculating a simple correlation coefficient between the question item total correlation and the Pearson product-moment correlation coefficient, which is the formula for calculating the peer correlation coefficient, one can determine the discriminant power of each item and the overall reliability of each questionnaire, by selecting statements with individual discriminant power values of .20 and above, and reliability by finding Cronbach alpha coefficient using the criteria for a confidence value that is acceptable from 0.70 or more. (Bunchom Srisa-at, 2010) This contains the questionnaire's overall confidence value. The

confidence value for the full questionnaire indicates that the intended condition for inclusive education is equal to 0.98, while the present condition for inclusive education is equal to 0.87.

5) Data collection

5.1）The researcher requested a letter from Phetchabun Rajabhat University's Faculty of Education in order to ask for help in appointing a specialist to examine the research equipment and to ask the director of the Phetchabun Provincial Special Education Center for help in gathering data and conducting experiments with research tools.

5.2）The Phetchabun Provincial Special Education Center components and indicators of inclusive education were examined by specialists using tools that the researcher had supplied to them.

5.3）The researcher gathers information from the sample, personally mails the questionnaires to the sample academic institutions, and then gets in touch with them to ask for the responses. The estimated response time for surveys was given as 4 weeks, and 100% of the questionnaires were returned in order to verify the accuracy and thoroughness of the data obtained.

6) Data analysis and statistics

6.1) Data analysis and statistics for the Phetchabun Provincial Special Education Center's research of the present state and ideal circumstances of inclusive education.

6.1.1) Organizing and analyzing data : take the evaluation form for the Phetchabun Provincial Special Education Center suitability of the inclusive education's components, verify its completion, and then analyze it in accordance with the stages below;

6.1.1.1) Organizing data, checking the correctness and completeness of the evaluation form and checking scores to assess the suitability of elements and indicators of inclusive education for the Phetchabun Provincial Special Education Center, according to the following scoring criteria; (5) the most, (4) a lot, (3) moderate, (2) a little, and (1) least.

6.1.1.2) Data analysis by finding the mean and standard deviation, then interpreting the results according to the scoring criteria as follows; 4.51-5.00 is the most appropriate, 3.51-4.50 is very appropriate, 2.51-3.50 is moderately appropriate, 1.51-2.50 is not very appropriate, and 0.00-1.50 is the least appropriate.

6.1.1.3) Results from data analysis Assessment of components and indicators of inclusive education for Phetchabun Provincial Special Education Center, appropriate indicators have an average of 1 indicator at the very appropriate level and 14 indicators at the most appropriate.

6.1.2）Take a questionnaire about the current conditions and desired conditions of inclusive education for the Phetchabun Provincial Special Education Center, check its completeness, and then analyze it according to the following steps;

6.1.2.1）Data organization Check the completeness of the questionnaire, assign a scoring code and record the data in the computer according to the scoring criteria as follows; (5) the most, (4) a lot, (3) moderate, (2) a little, and (1) least.

6.1.2.2）Data analysis : the part 1 section of the questionnaire asks broad questions about the respondent's situation; the results are then analyzed using frequency distribution to determine percentage values, and they are then presented as a table to go with the essay at the conclusion of the table, and using pre-made computer software to assess the mean and standard deviation, part 2 of the questionnaire on the present and ideal circumstances for inclusive education for the Phetchabun Provincial Special Education Center, the criteria for interpreting the mean values are specified as follows; the mean and interpretation of the results were 4.51-5.00 with the most appropriate of educational organization including current conditions and desired conditions, 3.51-4.50 there is very appropriate of inclusive education in the present and desired conditions, 2.51-3.50 has a moderately appropriate of inclusive education, current conditions and desired conditions, 1.51-2.50 there is not very appropriate of inclusive education in the present and desired conditions, and 1.00-1.50 has the least appropriate of inclusive education, current and desired conditions.

6.1.2.3) Averages at the highest and highest levels should be found in the findings of the study of inclusive education, present conditions, and appropriate desired conditions. Additionally, in order to prioritize the needs in arranging inclusive education for the Phetchabun Provincial Special Education Center, utilize the findings of the research of the existing state and desired conditions to establish the Modified Priority Needs Index (PNI Modified).

6.2) Statistics used in the research include; (1) the metrics used to assess the tool's quality, (2) Elementary statistics, and (3) a modified PNI index is created for each question, calculating the disparity between the actual situation and what should be, and then sorting the average score discrepancy.

Results

Questionnaire Part 1 : General information about the respondents' position; data were evaluated using a frequency distribution to determine percentage values; given as a table to accompany the essay at the conclusion of Table as described;

Table 1 Status percentage values separated by gender

Gender	Number (people)	Percentage
Male	6	12.50
Female	30	87.50
Total	**36**	**100.00**

From Table 1 it is found that the majority of respondents are female, with a total of 30 people, accounting for 87.50 percent, and followed by males numbering 6 people and accounting for 12.50 percent.

Table 2 Status percentages separated by general information of the educational institution

Educational Institution	Number (people)	Percentage
Phetchabun Primary Educational Service Area 1	21	42.80
Phetchabun Primary Educational Service Area 2	6	22.80
Phetchabun Primary Educational Service Area 3	1	7.80
Secondary Educational Service Area 40 Phetchabun Province	8	26.80
Total	**36**	**100.00**

From Table 2 it is found that Phetchabun Provincial Special Education Center, the service area of Phetchabun Provincial Special Education Center covers 11 districts. However, there are a number of educational areas consisting of; 1) Phetchabun Primary Educational Service Area 1 with an average of 42.80 percent, 2) Phetchabun Primary Educational Service Area 2 with an average of 22.80 percent, 3) Phetchabun Primary Educational Service Area 3 with an average of 7.80 percent, and 4) Secondary Educational Service Area 40 Phetchabun Province with an average of 26.80 percent. Personnel from the Phetchabun Provincial Special Education Center, including teachers and school administrators, served as the sample groups for this study, most of them are under Phetchabun Primary Educational Service Area 1.

Questionnaire Part 2 : Wich takes the form of a check list and a 5-level rating scale, requests thoughts about the state of inclusive education at the Phetchabun Provincial Special Education Center as well as desired conditions.

Table 3 Shows the mean and standard deviation for evaluating the appropriateness of the components and indicators of inclusive education, as guidelines for organizing inclusive education at the Phetchabun Special Education Center

No	Assessment Items	Level Components		Processing	Level Indicators		Processing
		$\bar{x}$	S.D.		$\bar{x}$	S.D.	
1	Quality of students	4.69	0.22	the most	4.69	0.22	the most
2	Teaching and learning activities	5.00	0.00	the most	5.00	0.00	the most
3	Participation in inclusive learning	4.89	0.33	the most	4.89	0.33	the most
4	Administrative and management processes	4.78	0.44	the most	4.78	0.44	the most
	Total	**4.90**	**0.21**	**the most**	**4.90**	**0.21**	**the most**

From Table 3 it was discovered that the Phetchabun Provincial Special Education Center is in-clued in the highest degree of compatibility for the inclusive education management strategy, in descending order of suitability as follows; 1) teaching and learning activities, in the components section with a mean of 5.00, and a standard deviation of 0.00, including indicators it has a mean of 5.00, and a standard deviation of 0.00 as well, which is at the most level, 2) participation in inclusive learning, in the components section with a mean of 4.89, and a standard deviation of 0.33, including indicators it has a mean value of 4.89, and a standard deviation of 0.33 as well, which is at the most level, 3) administrative and management processes, in the components section with a mean of 4.78, and a standard deviation of 0.44, including indicators it has a mean value of 4.78, and a standard deviation of 0.44 as well, which is at the most level, and 4) quality of students, in the components section with a mean of 4.69, and a standard deviation of 0.22, including indicators it has a mean value of 4.69, and a standard deviation of 0.22 as well, which is at the most level. Therefore, from the above information it is found that; the standards for setting up inclusive education for the Phetchabun Provincial Special Education Center are overall, at the greatest degree of viability, in descending order of suitability as follows; participation in inclusive learning, administrative and management processes, teaching and learning activities, and quality of students.

Table 4 Shows the mean, standard deviation of the present condition and the desirable condition of the total education management for the Special Education Center of Phetchabun Province, as a whole and by component

No	Component	Current Condition		Processing	Desired Condition		Processing
		$\bar{x}$	S.D.		$\bar{x}$	S.D.	
1	Quality of students	2.29	0.46	least	4.50	0.32	the most
2	Teaching and learning activities	2.30	0.49	least	4.48	0.35	the most
3	Participation in inclusive learning	2.25	0.61	least	4.44	0.38	the most
4	Administrative and management processes	2.16	0.35	least	4.47	0.44	the most
	Total	**2.22**	**0.46**	**least**	**4.45**	**0.35**	**the most**

From Table 4 the current state of inclusive education management for Phetchabun Province Special Education Center, overall, was at a least level, and when considering each element in descending order, namely; 1) teaching and learning activities, in the current condition section with a mean of 2.30, and a standard deviation of 0.48, including desired condition it has a mean value of 2.30, and a standard deviation of 0.49 as well, which is at least level, 2) quality of students, in the current condition section with a mean of 2.29, and a standard deviation of 0.46, including desired condition it has a mean value of 2.29, and a standard deviation of 0.46 as well, which is at least level, 3) participation in inclusive learning, in the current condition section with a mean of 2.25, and a standard deviation of 0.61, including desired condition it has a mean value of 2.25, and a standard deviation of 0.61 as well, which is at least level, and 4) administrative and management processes, in the current condition section with a mean of 2.16, and a standard deviation of 0.35, including desired condition it has a mean value of 2.16, and a standard deviation of 0.35 as well, which is at least level. Therefore, from the above information it is found that; desired conditions of organizing inclusive education for the Phetchabun Provincial Special Education Center. When ranking each component in descending order, the overall desired circumstances of inclusive education for the Phetchabun Provincial Special Education Center are at the most level, the caliber of the students, management and administrative procedures, involvement in inclusive learning, and teaching and learning activities.

Discussions

Suitability of components and indicators of inclusive education for the Phetchabun Provincial Special Education Center

The outcomes of data analysis the Phetchabun Provincial Special Education Center evaluation of the elements and indicators of inclusive education revealed that the suitable indicators had an average of no more than 1 indicator and no more than 14 indicators. Overall, there has been little research done on the state of inclusive education, and when each component is taken into account, it can be shown that the arranging learning activities teaching components have the greatest average. The learner quality component comes in second and is the most frequently used signal when teachers use the research method to better particular pupils or address issues. The most often noted sign is that students perform better academically. Whether or whether parents are aware of and welcoming of their children's special needs or disabilities is the most often cited indicator of inclusive education engagement. The fact that schools have set aside funds to support and promote inclusive education is the most often utilized indication in the administrative and management process component.

In order to find percentage numbers, the researcher used general information about the respondents' position to analyze the data using frequency distribution. The results were then displayed as a table with the essay at the conclusion of the table. This finding is consistent with the research of Chinchai (2008) by doing analysis on the creation of an inclusive learning environment for kids with special needs in a case study of Chiang Mai Province schools. In this regard, the study's findings revealed that the school still struggles with inclusive learning due to instructors' ignorance of how to identify kids who require particular assistance, such as learning difficulties and ADHD. In addition to having unfavorable attitudes about their peers who have special needs, typical students lack understanding of approaches for educating students with special needs and information about promoting early development. The fact that students with special needs continue to downplay their impairments prevents them from receiving aid, and it also prevents parents from giving their kids the full attention they require.

It is also in line with the idea of Phayomyam (2011) who studied the management of schools leading inclusive learning arrangements for disabled children in regular schools. The results of the research found that 1) the management conditions of the main school management inclusive education for children with disabilities in regular schools under the Nonthaburi Educational Service Area Office, with an overall picture and considered each aspect and found that it was at a moderate level, and 2) it was discovered that on the student side, including coordinating camp activities involving children with special needs and typical children, guidelines for creating the administration of leading schools implementing co- education for children with disabilities in regular schools, there is also preparation for normal students to have knowledge, understanding and acceptance of children with special needs, with administrators, teachers, parents, and the community having to cooperate as a team. In order to best meet the requirements of students with special needs, educational institutions must adapt their curricula. To do this, they must plan a range of teaching and learning activities and include the local community in the care of these students.

As for the issue of promoting community participation in caring for children with special needs, it is consistent with the research of Uttayotha (2013) to ensure that children with special needs get inclusive education; research was done on the creation of a cooperative network of community groups. The goal of the research is to create a model and examine the

outcomes of using a co-educational model based on the "SEAT" structure along with the rehabilitation of the disabled, using the community and the "Ecological Framework" that will have an impact on how inclusive school education is organized moving forward. Which is a paradigm that results from the collaboration of community-based groups that provide education for children with special needs in order to aid, support, and promote inclusive education in a networked fashion while employing brainstorming approaches to create a shared future.

In this respect, a ready-made computer program was utilized to assess the mean and standard deviation by setting the parameters for interpreting the mean from a questionnaire about the actual and desired circumstances of inclusive education for the Phetchabun Provincial Special Education Center. The current state of inclusive education management for Phetchabun Province Special Education Center, overall, was at a least level, and when considering each element in descending order, namely; teaching and learning activities, quality of students, participation in inclusive learning, and administrative and management processes, desired conditions of organizing inclusive education for the Phetchabun Provincial Special Education Center. When ranking each component in descending order, the overall desired circumstances of inclusive education for the Phetchabun Provincial Special Education Center are at the most level, the caliber of the students, management and administrative procedures, involvement in inclusive learning, and teaching and learning activities. It can be seen that the issues of teaching and learning activities that the researcher found are consistent with Carmeron (2005) an example of how general education instructors in a rural New South Wales school deliver inclusive instruction for students with severe and severe hearing impairment. According to the study's findings, the curriculum at the school has to be changed to incorporate more visual learning tools for the kids, to make it simpler for students with hearing problems to grasp classes or subjects with a lot of substance, visuals should be included, additionally as children with hearing impairments are unable to obtain academic achievements comparable to those of other learners, particularly in language, the curriculum's expectations for the academic accomplishment of hearing-impaired learners should be lowered.

Current conditions and desired conditions of inclusive education for the Phetchabun Provincial Special Education Center

It was discovered through the researcher's research findings that the case study schools had implemented the inclusive education model but that there were ongoing issues with the program due to instructors' lack of special education expertise. Those involved should manage preparation for general students to have knowledge, understanding, and acceptance of children with special needs because it includes general learners having a bad attitude toward friends who are learners with special needs and parents who still lack care to help their own children who are children with special needs. In addition to coordination and assistance from organizations involved in providing education for children with special needs, schools and communities must function as a cohesive unit, to build the system clearly and specifically, there should be operational objectives and policy orientations. Additionally, there should be systematic oversight, follow-up, and utilization of the assessment data to consistently enhance and promote inclusive learning environments. This includes fostering a more positive attitude among schools, families, community leaders, and society as a whole.

This aligns with data gathered from educators and the Phetchabun Provincial Special Education Center's director (Interview, 2023), it was discovered that certain educators and parents of students with special needs enrolled in inclusive education programs run by the Special Education Center are still unaware of the significance of inclusive education planning and are lacking in knowledge and comprehension of the subject. When a child nanny quits,

there is no one to blame for the lack of coordination in arranging inclusive education, which results in different tasks not being completed continuously. This is due to the discontinuity of the personnel in charge of organizing inclusive education, some of whom are also in charge of providing care for disabled children. Teachers who are in charge of organizing inclusive education may not have received the training that the Primary Educational Service Area Office has organized to screen people with disabilities in education, leaving them ignorant of how to screen children with disabilities in schools. The shortage of nannies for disabled children means that there are not enough of them to meet the needs of the school. Some nannies for disabled children perform work that does not match the workload, and this is in line with Reynolds & Birch. (1977) research, which claims that teachers lack the knowledge and comprehension necessary to create individual education plans (IEPs) and individual teaching plans (ITPs), because the classroom environment and atmosphere are inappropriate for teaching and learning activities. Furthermore, some schools may not have the necessary teaching resources for students with special needs, etc. Despite being a universal strategy for fostering human potential, special education faces numerous challenges in its implementation, particularly when it comes to promoting inclusive learning between children with special needs and typically developing students. This is partially due to the fact that a large number of educators and school administrators are still unfamiliar with the special education field, and believe that special needs kids are troublemakers who negatively affect the school; additionally, they believe that special needs education is expensive and not worth it; however, a lot of parents of special needs kids think their kids are incapable of learning and unfit for school because they are afraid their kids will be teased, which is a completely unsuitable belief.

Conclusion and suggestions

The researcher recognizes the significance of the research's findings, which will provide crucial information for planning inclusive education for the Phetchabun Provincial Special Education Center based on inclusive education's tenets. That is the approach that emphasizes the need for equal access to education and places particular emphasis on three things; 1) providing opportunity for everyone should have access to equal educational possibilities, with the freedom to select what they want to learn based on their own interests, regardless of their social, economic, or physical limitations, 2) if the personnel involved have faith in the ability of children with disabilities to develop, in their capacity to learn, and in the success of educational provision, then everyone has faith, believes they have the capacity to do anything, and that it will be successful, and 3) since humans are social animals, relying on one another to support one another is a fundamental part of who we are, in order to successfully organize inclusive education, this dependence on one another is essential.

The model school under study can serve as a model school for effectively organizing inclusive education between normal children and children with special needs. As a result, the inclusive learning model is based on the needs and applicability of this research to develop a model school for inclusive learning between normal children and children with special needs, at order to arrange inclusive education at schools run by the Ministry of Education and schools run by other ministries that provide basic education in Phetchabun Province, the researcher will give recommendations utilizing the research findings. Additionally, it is suggested that relevant ministries work together to develop policies that will guarantee effective implementation of inclusive learning by allocating service formats in accordance with the level of disability of the student and the preparedness of the school. In this regard, children with special needs are placed

in one form or another, with 3 forms of service provided; 1) full-time inclusive education : allowing no more than one student each room to study alongside children without severe learning difficulties, 2) partial inclusion : children with special needs will be scheduled to study in specialized academic rooms for Thai language, mathematics, and other topics with typical children by learning in an additional academic room called the "Pull-Out Program", and 3) full-time inclusive education with assistant teachers available to help children, called "Teachers Assistant Program", used with children with severe disabilities.

New knowledge and the effects on society and communities

Prior to now, organizing inclusive education had been hampered by a lack of preparation, inadequate media coverage, inadequate educational technology, unorganized classroom environments, an inappropriate learning environment, and a lack of emphasis on children with disabilities in the school curriculum. Including specialists in providing education for disabled children, administrators and teachers lacking self-confidence in organizing inclusive teaching activities, some parents not accepting the condition of their children's disabilities, concealing information about children and school, and economic and social conditions found in the unemployed status of parents who look after disabled children. Additionally, certain school policies, such as the dearth of funding for inclusive education, which is a major issue, do not place a high priority on inclusive education. Due to higher per capita costs for students in inclusive education, many pertinent educational institutions that offer inclusive education are few in number and unable to meet demand. The crucial factor is that there is no transfer or transition from one level of schooling to another, resulting in no job for work. It is also believed that the issues raised above have had a significant impact on the community and society at this time.

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Cultivating Critical Minds: Interdisciplinary Strategies for Empowering University Students Against Online Gambling Propaganda

Nattanun Siricharoen

Faculty of Communication Arts, Huachiew Chalermprakiet University, Thailand

E-mail: nattanun2004@yahoo.com

Abstract

In this qualitative study on "Cultivating Critical Minds: Interdisciplinary Strategies for Empowering University Students against Online Gambling Propaganda," researchers have uncovered critical insights from experts spanning fields like Psychology, Public Health Science, Communication Arts, Law, and Information Technology. Conducted between December 2022 and January 2023, this research brings to light several key findings: 1) Lack of Awareness and Understanding: A significant issue is the lack of awareness among university students regarding the risks associated with online gambling. This knowledge gap can lead to adverse consequences such as depression and financial distress. Experts emphasize the need to educate students about the intricacies of online media and digital platforms to address this challenge. 2) Role of Mass Media and Regulation: Mass media has a paradoxical role in promoting gambling while failing to educate students about its risks. Experts recommend vigilant monitoring of online gambling sites, identifying suspicious transactions, and collaborative efforts with law enforcement agencies to combat this issue. Building public awareness and collective immunity against online gambling propaganda is also crucial. 3) Addressing Root Causes: The study identifies various factors pushing university students towards online gambling, including societal influences, economic pressures, family dynamics, and lax law enforcement. Experts advocate for a comprehensive approach to mitigate these underlying issues, such as promoting positive peer influences, delivering financial literacy education, reinforcing family values, providing counseling services within educational institutions, and implementing stricter legal measures. 4) Treating Gambling Addiction: A holistic strategy is presented for combating gambling addiction, focusing on trust-building, critical thinking cultivation, experiential learning, life skills development, and promoting acceptance and understanding. These measures aim to help adolescents recognize the consequences of their actions. 5) Legal Framework and Education: Urgent reforms are needed in the legal framework to effectively combat online gambling. Proposals include clear definitions, supplementary laws targeting media platforms, and comprehensive educational campaigns highlighting the risks of online gambling. Experts also recommend studying the public relations strategies employed by gambling media platforms and developing online gambling media literacy programs. In summary, this research underscores the need to address the pervasive influence of online gambling propaganda among university students. It advocates for a comprehensive, interdisciplinary approach that involves education, regulation, and addressing root causes to protect vulnerable populations. Implementing these recommendations

has the potential to create a safer online environment for students and empower them with the critical tools needed to make informed choices.

Keywords: Cultivating critical minds, Interdisciplinary strategies, Empowering, University students, Online gambling propaganda

Introduction

In today's digital era, online platforms have become pervasive in our daily lives, offering a multitude of opportunities and challenges. One such challenge that has gained significant attention is the issue of online gambling propaganda, particularly among university students. The influence of persuasive and misleading content on online platforms has the potential to shape beliefs, attitudes, and behaviors towards gambling, often leading to detrimental consequences for vulnerable individuals. Recognizing the urgency of this issue, a comprehensive approach is required to address the complex dynamics of online gambling propaganda. This necessitates the integration of knowledge from various disciplines, including psychology (PSY), public health science (PHS), communication arts (CA), law (LAW), and information and communication technology (ICT) . By leveraging the insights and methodologies from these diverse fields, we can equip university students with the necessary skills to critically evaluate and navigate the digital landscape, enhancing their media literacy and resilience to online gambling propaganda.

Psychology (PSY) offers valuable insights into the cognitive processes and vulnerabilities that make individuals susceptible to persuasive messaging (Wood & Williams, 2009). Understanding the psychological mechanisms underlying online gambling propaganda can enable us to design effective interventions that target cognitive biases, emotions, and decision-making processes.

Public health science (PHS) plays a crucial role in elucidating the health- related consequences of online gambling and its associated propaganda (Gainsbury & Blaszczynski, 2 0 1 1). By studying the impacts on mental health, social well- being, and addiction, public health experts can inform evidence- based prevention strategies and interventions tailored specifically for university students.

Communication arts (CA) provide the tools to analyze the persuasive techniques employed in online gambling propaganda (King & Delfabbro, 2016) . By examining the rhetoric, visual design, and narrative strategies used to promote gambling, communication experts can help students deconstruct these tactics and cultivate critical thinking skills necessary for media literacy.

Law (LAW) serves as the regulatory framework that governs online gambling practices and propaganda (Hing & Gainsbury, 2 0 1 1) . Understanding legal and ethical dimensions is crucial for developing policies that protect students from exploitative gambling practices and hold accountable those who engage in deceptive promotion.

Information and Communication Technology (ICT) plays a fundamental role in shaping the online landscape (Gainsbury et al., 2 0 1 5). By harnessing technological advancements, such as AI- based content analysis and detection algorithms, we can develop innovative solutions to identify, flag, and mitigate online gambling propaganda, providing students with a safer digital environment.

By synergistically integrating knowledge from psychology (PSY), public health science (PHS), communication arts (CA), law (LAW), and ICT, we can establish a multidisciplinary framework for fostering media literacy on online gambling propaganda among university students. This comprehensive approach will equip students with critical thinking skills, empower them to recognize and resist manipulation, and ultimately promote responsible digital citizenship.

Believing in propaganda media and developing an addiction to online gambling can have serious consequences for university students. Some potential effects include:

1. Academic Performance Decline (APD): Students who become addicted to online gambling may experience a decline in their academic performance (Delfabbro & King, 2012). The time and energy spent on gambling activities can interfere with their ability to study, complete assignments, and prepare for exams.

2. Financial Problems (FP): Online gambling addiction can lead to significant financial difficulties (LaPlante et al., 2011). Students may spend money they cannot afford to lose, accumulate debt, or resort to borrowing money from friends, family, or even engaging in illegal activities to fund their gambling habits.

3. Psychological Distress (PD): Gambling addiction can cause emotional and psychological distress. Students may feel anxious, stressed, or irritable when they are unable to gamble or face financial losses (Kourgiantakis, Saint-Jacques, & Tremblay, 2013). This can lead to a decline in mental well-being, affecting their overall quality of life and potentially leading to depression or anxiety disorders.

4. Social Isolation and Relationship Issues (SIRI): Gambling addiction often leads to social isolation as individuals spend more time gambling online and less time engaging in social activities or maintaining relationships (Hodgins, Stea & Grant, 2011). Students may withdraw from their social circles, neglect their friendships, and experience difficulties in their personal relationships.

5. Legal and Ethical Problems (LEP): In some cases, online gambling may involve illegal activities or unethical behavior (Shead, Derevensky & Gupta, 2010). Students who engage in illegal gambling may face legal consequences, including fines or even criminal charges. Moreover, the addictive nature of online gambling can lead individuals to engage in unethical practices, such as cheating or lying to support their gambling habits, which can have long-term negative effects on their personal and professional integrity.

6. Impaired Future Opportunities (IFO): If a student's addiction and related consequences become known to their university or potential employers, it can negatively impact their future opportunities (Elton-Marshall, Leatherdale & Turner, 2016). It may lead to disciplinary actions, academic probation, or expulsion from the university. Additionally, employers may be hesitant to hire individuals with a history of addiction and associated issues.

It is important for university students to be aware of the potential consequences and seek help if they are struggling with gambling addiction or finding themselves excessively influenced by propaganda media. Universities often have support services, counseling centers, or student organizations that can provide assistance and guidance to students facing these challenges.

Research on fostering media literacy on online gambling propaganda among university students is essential for several reasons:

1. Understanding the impact (UI): Research helps us understand the effects of online gambling propaganda on university students (Messerlian, Derevensky, & Gupta, 2005). By examining the psychological and behavioral aspects, we can assess how exposure to such

content influences attitudes, beliefs, and behaviors related to gambling. This understanding can guide the development of effective interventions.

2. Identifying risk factors (IRF): Research allows us to identify specific risk factors associated with online gambling propaganda (Shaffer & Martin, 2011). Factors such as cognitive biases, susceptibility to persuasive messages, and social influences can contribute to the effectiveness of gambling propaganda. Identifying these risk factors helps in designing targeted prevention strategies.

3. Developing effective interventions (DEI): Research provides insights into effective strategies to foster media literacy and counter the influence of online gambling propaganda (Hing, Cherney, Blaszczynski, Gainsbury & Lubman, 2014). By studying the effectiveness of different approaches, such as educational campaigns, cognitive-behavioral interventions, and regulatory policies, we can develop evidence-based interventions to enhance media literacy skills among university students.

4. Legal and policy considerations (LPC): Research can inform policymakers and lawmakers about the potential risks associated with online gambling propaganda (Hare, Turner & Armstrong, 2008). By examining the existing legal frameworks, regulatory policies, and their effectiveness, research can help identify gaps and provide recommendations for strengthening legal and policy measures to protect university students from harmful gambling influences.

5. Media literacy promotion (MLP): Research helps in understanding the current level of media literacy among university students concerning online gambling propaganda (Livingstone & Helsper, 2007). By assessing their knowledge, skills, and attitudes towards media consumption, researchers can identify areas that require improvement. This information can guide the development of educational programs and resources to enhance media literacy competencies among students.

6. Interdisciplinary approach (IDA): Research on this topic benefits from the integration of knowledge from various disciplines (Blaszczynski, Ladouceur & Shaffer, 2004)., including psychology (PSY), public health science (PHS), communication arts (CA), law (LAW), and information and communication technology (ICT). Collaborative research across these disciplines allows for a comprehensive understanding of the issue and the development of holistic interventions that address the multifaceted nature of online gambling propaganda.

Therefore, research on fostering media literacy on online gambling propaganda among university students is crucial in this qualitative study titled "Cultivating Critical Minds: Interdisciplinary Strategies for Empowering University Students against Online Gambling Propaganda." This research aims to inform evidence-based interventions, policy development, and educational initiatives aimed at protecting students from the potential harms of online gambling and promoting responsible media consumption.

The objective of this research

The first objective of this research is to explore and integrate knowledge from all five branches of science: physical science, life science, earth science, social science, and formal science. This integration aims to develop comprehensive and interdisciplinary educational materials that can help students gain a holistic understanding of various scientific concepts and principles.
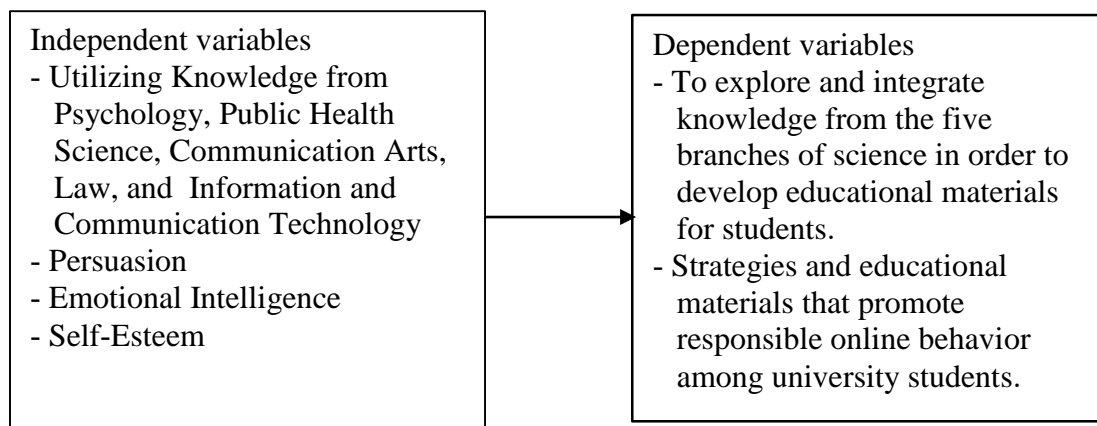
The second objective is to develop strategies and educational materials that promote responsible online behavior among students. This includes raising awareness about the risks and consequences of online gambling, providing guidance on setting limits, and fostering self-control when engaging with online platforms. By equipping students with the necessary

knowledge and skills, they can make informed choices and develop a healthy relationship with online media while minimizing the potential negative impact of persuasive messages related to online gambling or other regenerated activities.

By pursuing these objectives, the research aims to empower students with a comprehensive scientific education, critical thinking skills, and media literacy, enabling them to make informed decisions and navigate the digital landscape responsibly.

Research flow

| Independent variables
- Utilizing Knowledge from Psychology, Public Health Science, Communication Arts, Law, and Information and Communication Technology
- Persuasion
- Emotional Intelligence
- Self-Esteem | Dependent variables
- To explore and integrate knowledge from the five branches of science in order to develop educational materials for students.
- Strategies and educational materials that promote responsible online behavior among university students. |

Figure 1 This is a research flow of Cultivating Critical Minds: Interdisciplinary Strategies for Empowering University Students against Online Gambling Propaganda. (Source: Natthanan Siricharoen, 2023)

Literature Review

Children and teenagers in North America constitute the first generation of youth to come of age in a society where numerous forms of gambling are readily accessible and promoted extensively. What was once regarded as a sinful and vice-ridden activity is now commonly viewed as a benign form of adult entertainment and has gained widespread acceptance in our culture. In Canada, although government-regulated gambling is prohibited for individuals under the age of 18, an increasing number of young people are engaging in gambling as a form of leisure and amusement (Jacobs, 2000). Furthermore, it's important to acknowledge that there are certain methodological challenges when it comes to assessing pathological gambling in young individuals. Despite these challenges, there is a consistent body of evidence indicating that the rates of probable pathological gambling in youth range from 4% to 8%. This prevalence rate is notably higher when compared to the rates of pathological gambling in the general adult population, which typically fall within the range of 1% to 3%. (Derevensky, Gupta, & Winters, 2003; National Research Council, 1999). Technological advancements in the gaming industry have led to the emergence of various new forms of gambling. In recent years, the gambling landscape has witnessed significant developments, including online gambling, advanced slot machines, electronic gambling machines, Video Lottery Terminals (VLTs), interactive television games, and telephone wagering (Griffiths & Wood, 2000). These innovations have reshaped the way people engage with and experience gambling activities The gambling industry has undergone significant transformations in recent years, largely driven by rapid technological advancements. These innovations have given rise to new forms of gambling, presenting both opportunities and

challenges for individuals, regulators, and society as a whole. Online Gambling: A Convenient and Controversial Frontier. One of the most noteworthy developments in the gambling world is the proliferation of online gambling platforms. Enabled by the internet, players can now engage in various casino-type games from the comfort and privacy of their own homes. This convenience has undoubtedly contributed to the growing popularity of online gambling. However, these developments also raise concerns related to legality, responsible gambling, addiction, and social impact.

This literature review explores the interdisciplinary approach to promoting media literacy through online media by integrating knowledge from psychology, public health, communication arts, information technology, and communication. It highlights the significance of media literacy in the digital age and the challenges posed by online media. The review examines the role of each discipline in enhancing media literacy skills and emphasizes the importance of collaborative efforts. It discusses psychological factors influencing media consumption, interventions to enhance critical thinking skills, the role of public health in promoting media literacy, analysis of media messages, the impact of digital technologies on media literacy, and the use of online media as educational tools. The review concludes by emphasizing the need for ongoing interdisciplinary collaboration and future research to effectively address the challenges of the digital media landscape and empower individuals in navigating it responsibly.

The Theory of Persuasion, also known as persuasive communication theory, explores how people are influenced and persuaded to adopt certain attitudes, beliefs, or behaviors through communication. It seeks to understand the psychological processes and strategies involved in changing or shaping an individual's thoughts and actions. One prominent theory of persuasion is the elaboration likelihood model (ELM) developed by Richard E. Petty & Cacioppo (1981). The ELM suggests that persuasion occurs through two routes: the central route and the peripheral route. Central Route: This route involves a person's careful and systematic evaluation of the information presented. When individuals are motivated and have the ability to process the message deeply, they are more likely to be persuaded through the central route. The key factors in this route are the strength and quality of arguments, credibility of the source, and logical reasoning. Peripheral Route: This route relies on peripheral cues, such as superficial aspects of the message or the credibility and attractiveness of the communicator. When individuals lack motivation or cognitive resources to engage in deep processing, they are more likely to be influenced through peripheral cues. Examples of peripheral cues include attractive visuals, celebrity endorsements, or emotional appeals. Other theories and concepts related to persuasion include social proof (the idea that people are more likely to adopt a certain belief or behavior if they see others doing the same), reciprocity (the tendency to feel obligated to return a favor or concession), scarcity (the perception that something is more valuable when it is limited or difficult to obtain), and the foot-in-the-door technique (starting with a small request to increase compliance with a larger request later).

Therefore, the theory of persuasion helps us understand how messages are crafted and delivered to influence people's attitudes, beliefs, and behaviors. It involves understanding the cognitive processes, motivations, and situational factors that play a role in effective persuasion.

Emotional Intelligence Theory: Emotional Intelligence (EI) is a concept that refers to the ability to identify, understand, manage, and express emotions effectively in oneself and others. The theory of emotional intelligence proposes that this set of skills plays a crucial role in personal and social success. The most influential model of emotional intelligence was developed by psychologists Salovey & Mayer (1990) and popularized by Goleman (1995). This model defines emotional intelligence as consisting of four key components: Perceiving

emotions: The ability to accurately recognize and interpret emotions in oneself and others, including facial expressions, body language, and vocal cues. Using emotions: The ability to harness emotions to facilitate thinking, problem-solving, and decision-making. This involves using emotions to motivate oneself, generate creative ideas, and stay focused. Understanding emotions: The capacity to comprehend the causes, consequences, and complexities of emotions. This includes recognizing the relationship between emotions, thoughts, and behavior. Managing emotions: The skill to regulate and control one's emotions and to effectively manage the emotions of others. This involves handling stress, controlling impulses, adapting to change, and fostering positive relationships. Research has shown that individuals with higher emotional intelligence tend to have better interpersonal relationships, stronger leadership skills, higher job performance, and greater psychological well-being. Emotional intelligence theory focuses on understanding and managing emotions effectively, both in oneself and in others. It can be applied to various aspects of life, including media literacy and recognizing propaganda, as well as making informed decisions about online gambling. Here are some examples:

Media Literacy: Emotional intelligence can help individuals become more discerning consumers of media by enabling them to: Recognize emotional manipulation: Emotional intelligence allows individuals to identify when media content aims to evoke specific emotions to influence their opinions or behaviors. Analyze bias and objectivity: Emotional intelligence helps individuals remain objective and critically evaluate media sources, recognizing any potential biases or agendas that might affect the information presented. Differentiate between fact and opinion: Emotional intelligence enables individuals to differentiate between factual information and subjective opinions, allowing them to form more informed judgments. Manage emotional responses: Emotional intelligence helps individuals regulate their emotional reactions to media content, reducing the risk of being swayed by sensationalism or fear-based tactics.

Propaganda: Emotional intelligence can play a crucial role in recognizing and resisting propaganda techniques, such as: Emotional manipulation: Propaganda often attempts to manipulate emotions to shape public opinion. Emotional intelligence helps individuals identify when their emotions are being targeted to influence their beliefs or actions. Empathy and perspective-taking: Emotional intelligence allows individuals to understand and consider different perspectives, helping them question and critically analyze propaganda messages. Emotional regulation: Emotional intelligence helps individuals manage their emotional responses to propaganda, enabling them to think more rationally and make decisions based on facts rather than emotional manipulation.

Online Gambling: Applying emotional intelligence when engaging with online gambling can lead to more responsible behavior, such as: Self-awareness: Emotional intelligence enables individuals to recognize their own emotional triggers and vulnerabilities, helping them identify when they might be prone to impulsive or excessive gambling. Emotional regulation: Emotional intelligence helps individuals manage urges, impulsivity, and frustration related to gambling, reducing the risk of developing addictive behaviors. Empathy and social awareness: Emotional intelligence allows individuals to understand the potential negative impact of gambling on themselves and others, fostering empathy and encouraging responsible gambling practices. Decision-making: Emotional intelligence assists individuals in making informed decisions about online gambling by considering the potential consequences, assessing risks, and weighing their emotional and financial well-being.

Remember that these examples highlight how emotional intelligence theory can be applied in the context of media literacy and online gambling, promoting critical thinking, responsible behavior, and self-awareness.

Self-Esteem Theory, proposed by Morris Rosenberg (1965), suggests that individuals have a fundamental need for positive self-regard, and their self-esteem is influenced by the evaluations they receive from others, particularly significant individuals in their lives. It emphasizes the role of social comparison in the development and maintenance of self-esteem, as individuals assess their worth and value by comparing themselves to others. Self-esteem is influenced by personal achievements, social comparisons, and feedback from others. There are two types of self-esteem: trait self-esteem, which is a person's general and enduring level of self-worth, and state self-esteem, which fluctuates depending on specific events and social comparisons. Higher self-esteem is generally associated with greater resilience, motivation, and psychological well-being, although excessive or fragile self-esteem can lead to negative outcomes. In the context of media literacy and online gambling, individuals with low self-esteem may be more susceptible to manipulation and propaganda related to online gambling due to their desire for validation and enhancement of self-esteem.

For example, imagine a person with low self-esteem who feels inadequate and seeks validation and acceptance. They might come across online advertisements or social media posts promoting online gambling as a way to boost their self-confidence and achieve success. These messages may emphasize the possibility of winning large sums of money, gaining recognition, or being part of an exclusive group of successful gamblers. This propaganda appeals to their desire for social acceptance and validation, offering a perceived solution to their self-esteem issues. Lacking media literacy skills, such individuals may fail to critically analyze and question the claims made in these messages. They may overlook the risks and negative consequences associated with gambling, such as financial loss, addiction, and emotional distress. Instead, they might focus on the short-term excitement and the potential for an improved self-image that gambling promises. In this scenario, media literacy plays a crucial role in empowering individuals to recognize and resist propaganda related to online gambling. Media literacy education can provide individuals with the knowledge and skills to critically evaluate media messages, understand the tactics used in propaganda, and make informed decisions based on accurate information. By developing media literacy, individuals can better recognize manipulative strategies and protect themselves from being swayed by misleading claims that exploit their self-esteem vulnerabilities. The self-esteem theory can shed light on how individuals with low self-esteem might be targeted by propaganda related to online gambling. Through media literacy education, individuals can become more discerning consumers of media, enabling them to make informed decisions and resist manipulation that can negatively impact their well-being.

Both emotional intelligence and self-esteem theory contribute to our understanding of human behavior and well-being. While emotional intelligence focuses on the ability to perceive and manage emotions effectively, self-esteem theory emphasizes the importance of self-worth and evaluation in shaping individuals' thoughts and behaviors.

Related Research

Kaewmanee & Pongloe (2021) investigated the factors affecting attitudes and behaviors towards gambling among undergraduate students. They found that 6.5 percent of students regularly participated in gambling activities. The most popular forms of gambling among students were playing cards (48.3 %), underground lottery (15.7 %), and football betting (13.5 %). The study identified various locations where gambling took place, including dormitories

(35. 1 %), residences (26. 3 %), and educational institutions (11. 1 %). It also highlighted the significant influence of friends on students' gambling behaviors, with 54. 5 percent of participants reporting that gambling among friends made them more likely to gamble. Inviting friends to gamble together was seen as a convenient way to engage in gambling. The research emphasized the influential role of parents and friends as environmental factors in students' gambling experiences. Online gambling was found to be prevalent among students, highlighting the need for effective enforcement of the Gambling Act 1935 concerning internet gambling. However, the study revealed that enforcement was ineffective due to issues such as the lack of a clear definition of online gambling and low penalty rates, which resulted in students paying less attention to the regulations.

Research has been conducted on the factors that influence students' attitudes and behaviors towards gambling. It is crucial to raise awareness among students about the influence of media propaganda that promotes online gambling, which comes in various hidden styles and types. Family members, including parents and relatives, play a significant role in shaping students' attitudes and behaviors. Numerous studies in the social sciences by academics such as Amato & Fowler (2002), Baumrind (1991), Belsky, Conger & Capaldi (2009), Elder et al. (1995), Ryan & Deci (2000), and Knafo & Plomin (2006) have explored the impact of family influence. The family, as an important institution, holds great significance for individuals, starting from birth and continuing through their upbringing and personality development. Families serve as the primary source of indoctrination, instilling habits and shaping the conscience of children from a young age. Consequently, children and youth, including students, display behaviors influenced by their family's values and cultural background. By gradually conveying appropriate attitudes, families can guide children and youth to develop positive thoughts aligned with Thai society's norms. Ultimately, these thoughts become ingrained in their daily lives and determine their behavior. Friends, educational institutions, and government agencies play essential roles in combating the hidden dangers of online gambling. By utilizing the latest information and formulating guidelines, they can raise awareness and improve public policies to protect individuals and families. Through their collective efforts, they can effectively address this issue in today's modern world.

Methodology

In this qualitative research study, the aim was to gather insights from experts in psychology, public health, communication arts, law, and information and communication technology on strategies to empower university students against online gambling propaganda. The primary data collection method utilized for this study was in-depth interviews with experts from various fields. These interviews were conducted during the months of December 2022 and January 2023.

Key Informant Selection: Key informants were carefully selected based on their expertise and extensive knowledge in the relevant fields. The criteria for selecting these informants were designed to ensure that they were information- rich and capable of providing valuable perspectives. To maintain the confidentiality of key informants, their names and photographs were concealed in the research findings and reporting. The chosen key informants possessed at least a decade of experience in academic or professional fields related to the research topic. They had a background in issues concerning hidden online gambling games and the use of propaganda media to entice teenagers into gambling. Some of the informants had served as advisors for theses and dissertations of master's and doctoral students conducting research on topics related to hidden online gambling games. Others held executive positions in

agencies dealing with missions related to online hidden gambling games. In total, five key informants were selected, all of whom had direct relevance to the research topic.

Data Collection Instruments and Analysis Methods: For data collection, semi-structured interview guides tailored to each expert's field of expertise were employed. These guides were designed to elicit detailed information about the experts' perspectives and experiences regarding online gambling propaganda. Data analysis followed a thematic analysis approach, wherein transcripts of the in-depth interviews were coded and categorized into themes and patterns. This method aimed to identify recurring themes and insights shared by the experts.

Ensuring Credibility of Findings: Several measures were implemented to establish the credibility of the research findings. Member checking was one such measure, where participants were given the opportunity to review and validate the findings based on their own interviews. Peer debriefing and triangulation were also utilized to enhance the trustworthiness and validity of the data. Triangulation played a pivotal role in enhancing the trustworthiness and validity of the data. Triangulation is a methodological approach that involves using multiple sources, methods, or perspectives to validate and corroborate research findings.

1. Triangulation of Data Sources: One crucial aspect of triangulation in this study was the use of multiple data sources. Rather than relying solely on one type of data, the researchers incorporated a diverse range of sources to gather information on strategies for empowering university students against online gambling propaganda. The primary data source was in-depth interviews with experts from various fields, as previously mentioned. These interviews provided rich qualitative data from individuals with extensive knowledge and experience. In addition to interviews, the study could have also benefited from the inclusion of other data sources, such as surveys or content analysis of online gambling propaganda materials. By incorporating different data sources, researchers can cross-verify findings, making the results more robust and reliable.

2. Triangulation of Methods: The study primarily utilized in-depth interviews as the main data collection method. However, triangulation of methods involves using different research techniques to explore the same research questions. In this context, researchers could have employed additional methods, such as focus groups, participant observation, or document analysis, to gather complementary data. For example, conducting focus groups with university students themselves could have provided valuable insights into their perceptions and experiences with online gambling propaganda. Participant observation could have allowed researchers to immerse themselves in the online environments where propaganda is prevalent, gaining a deeper understanding of the phenomenon. Document analysis could have been used to examine propaganda materials directly.

3. Triangulation of Researchers: Another form of triangulation involves using multiple researchers to analyze and interpret data independently. In this study, having multiple researchers independently code and analyze the interview transcripts would have added an extra layer of validation to the findings. Different researchers bring diverse perspectives and biases to the analysis process, which can help identify potential errors or biases in the data interpretation. During data collection, a primary researcher and research assistants were involved in collecting various data.

In the qualitative study on empowering university students against online gambling propaganda, triangulation was a valuable methodological approach employed to enhance the trustworthiness and validity of the data. While the study successfully employed in-depth interviews as a data collection method, it could have further strengthened its research design by incorporating triangulation of data sources, methods, and researchers. By diversifying data

sources and methods, the study could have provided a more comprehensive and multi-faceted understanding of the research topic. Additionally, involving multiple researchers in the data analysis process would have added rigor to the interpretation of findings. Triangulation, when used effectively, not only bolsters the credibility of qualitative research but also enriches the depth and breadth of insights generated from the study.

Figure 2 The process of collecting research data from 5 experts in 5 fields
(Source: Natthanan Siricharoen, 2023)

Results

The research results obtained from in-depth interviews with experts in various disciplines regarding online gambling propaganda and its impact on university students. The names of the key informants have been omitted to maintain confidentiality.

Research Findings

1. Communication Arts Perspective: Communication Arts Specialist underscores that children today face a significant risk of exposure to gambling and gaming without a full understanding of the associated dangers. This lack of awareness can result in various negative consequences, including depression and academic disinterest. To address this issue, experts recommend: Educating children about online media and digital platforms to promote responsible use. Providing information about the risks associated with online gambling. Encouraging active participation and knowledge sharing to engage students in discussions and decision-making processes.

2. Information Technology and Law Perspective: Information Technology and Law Specialist highlights the dual nature of IT, emphasizing both its positive and negative aspects. One of the negative consequences discussed is the rise of online gambling among students due to exposure to advertisements. To combat this issue, it is recommended to: Implement measures to filter and monitor online gambling sites. Promote digital literacy and critical thinking skills. Engage influential figures, such as celebrities, to raise awareness about the risks of online gambling.

3. Public Health Perspective: Public Health Specialist delves into the causes of online gambling among college students, identifying multiple contributing factors. To address these root causes, the following strategies are proposed: Foster positive peer influence and guidance

to deter students from gambling. Teach financial literacy and highlight gambling risks. Involve families in instilling values and educating children about gambling risks. Provide counseling services and advisors in educational institutions. Strengthen law enforcement measures and penalties for online gambling.

4. Psychiatry and Adolescent Health Perspective: Psychiatry and Adolescent Health Specialist focuses on building trust and critical thinking skills in adolescents addicted to gambling. Key steps in this approach include: Multidisciplinary treatment involving psychologists and social workers. Modifying the environment to reduce gambling triggers. Building trust with addicted adolescents. Teaching critical thinking and life skills. Emphasizing acceptance, understanding, and open communication.

5. Legal and Media Perspective: Legal and Media Specialist addresses the legal framework and media literacy regarding online gambling. The following strategies are proposed: Updating laws to define roles and actions in online gambling. Drafting supplementary laws targeting media platforms that promote gambling. Providing comprehensive education to students about online gambling and media literacy.

Integration of Knowledge and Strategies

Based on the insights from these disciplines, it is essential to integrate knowledge and develop comprehensive strategies for university students: Develop strategies and materials for students, emphasizing media literacy and awareness of online gambling propaganda. Implement interdisciplinary approaches that leverage the strengths of each discipline to address the multifaceted issue of online gambling. Encourage active participation and critical thinking among students to empower them in making informed decisions regarding online gambling. The synthesis of research findings from experts in Communication Arts, Information Technology, Public Health, Psychiatry, and Law highlights the urgent need to address the issue of online gambling propaganda among university students. By integrating knowledge and strategies from these disciplines, we can better equip students to navigate the digital landscape and make informed choices, ultimately mitigating the negative impact of online gambling propaganda on society.

To further elaborate on the integration of knowledge and strategies from all five disciplines (Communication Arts, Information Technology and Law, Public Health, Psychiatry and Adolescent Health, and Legal and Media), consider the following:

Integration of Knowledge

Interdisciplinary Workshops: Organize interdisciplinary workshops where experts from each discipline come together to share their insights and collaborate on developing a holistic approach to addressing online gambling propaganda.

Joint Research Projects: Encourage collaborative research projects that involve experts from multiple disciplines working on specific aspects of the online gambling issue. For example, a joint study could investigate the psychological effects of online gambling advertisements.

Knowledge Exchange: Facilitate regular knowledge exchange sessions among experts to ensure they stay updated on the latest research findings, trends, and developments in their respective fields.

Cross- Disciplinary Training: Offer cross- disciplinary training sessions for professionals in each field to broaden their understanding of how their expertise can contribute to a comprehensive solution.

Integrated Strategies

Comprehensive Curriculum: Develop a comprehensive curriculum that incorporates elements from all five disciplines, ensuring that students receive a well-rounded education on media literacy, online gambling, and its broader implications.

Interdisciplinary Task Forces: Establish interdisciplinary task forces comprising experts from each discipline to design and implement multifaceted strategies addressing online gambling propaganda.

Media Campaigns: Launch media campaigns that combine the strengths of each discipline, such as using effective communication techniques, legal insights, public health messaging, and mental health support to raise awareness and promote responsible online behavior.

Policy Advocacy: Collaborate with legal experts to advocate for policy changes and regulations that address online gambling advertising and its impact on vulnerable populations, especially youth.

Mental Health Support Programs: Develop mental health support programs within educational institutions that leverage insights from psychiatry and adolescent health experts to assist students struggling with online gambling addiction.

Media Literacy Initiatives: Implement media literacy initiatives that incorporate legal and media perspectives to help students critically evaluate online content, including gambling advertisements, and make informed choices.

Interdisciplinary Research Centers: Establish interdisciplinary research centers dedicated to studying the multifaceted aspects of online gambling, promoting collaboration among experts, and disseminating research findings to the public.

Community Outreach: Extend strategies beyond the university setting to engage with the broader community, involving public health professionals in awareness campaigns and legal experts in advocating for regulatory changes.

By integrating knowledge from these diverse disciplines and implementing integrated strategies, universities and stakeholders can create a comprehensive approach to combat online gambling propaganda, better equip students to navigate the digital landscape, and contribute to broader societal change in addressing this pressing issue.

To develop strategies and materials for university students with a particular emphasis on media literacy and the impact of online gambling propaganda, consider the following steps and content:

Strategies:

Curriculum Integration: Collaborate with academic institutions to integrate media literacy and online gambling awareness into existing courses or create dedicated courses on these topics.

Interactive Workshops: Conduct interactive workshops where students can critically analyze online gambling advertisements, identify propaganda techniques, and discuss the consequences of gambling.

Guest Lectures: Invite experts from various fields, including psychology, law, and public health, to deliver guest lectures on the psychological, legal, and health implications of online gambling.

Peer Education Programs: Establish peer-led programs where knowledgeable students can educate their peers about media literacy and responsible online behavior.

Online Resources: Create an online platform with resources such as articles, videos, and quizzes that students can access to enhance their understanding of media literacy and online gambling.

Materials

Educational Videos: Produce informative videos that explain the tactics used in online gambling propaganda and the potential consequences of online gambling addiction.

Infographics: Design visually appealing infographics that illustrate key concepts related to media literacy and online gambling, making complex information more accessible.

Case Studies: Develop case studies highlighting real- life examples of individuals affected by online gambling, including personal stories and the resulting challenges they face.

Interactive Games: Create gamified educational tools that engage students in decision-making scenarios related to online gambling, allowing them to experience the consequences of their choices.

Discussion Guides: Provide discussion guides for educators to facilitate meaningful conversations in the classroom, encouraging students to critically analyze online content and its influence.

Social Media Campaigns: Launch social media campaigns with sharable content that raises awareness about online gambling propaganda and promotes responsible online behavior.

Printed Materials: Produce pamphlets, brochures, and posters for distribution on campuses, in libraries, and at student events to reach a wider audience.

Online Forums: Establish moderated online forums or discussion boards where students can ask questions, share experiences, and seek guidance on media literacy and online gambling issues.

By implementing these strategies and developing relevant materials, universities can effectively equip students with the knowledge and skills needed to navigate the digital landscape responsibly, recognize online gambling propaganda, and make informed choices regarding their online activities.

Summary of Research Results

The research on online gambling among children and college students in Thailand brings to light several crucial perspectives and findings. The comments from experts in communication arts, public health, IT, and law shed light on the challenges and potential solutions, emphasizing the importance of education, regulation, and addressing root causes. The key findings of the research encompass psychological factors, public health implications, communication strategies, legal framework, information technology, and the long-term impact of media literacy interventions.

Perspectives and Solutions: Lack of Awareness and Understanding: Experts highlighted the lack of knowledge and awareness among children and students regarding the risks associated with online gambling. To address this, education about online media and digital platforms, along with information about online gambling risks, is crucial.

Role of Mass Media and Regulation: Experts pointed out that mass media promote gambling but fail to educate children about the risks. Proposed solutions include filtering and monitoring online gambling sites, identifying suspicious transactions, and collaborating with cyber police for enforcement.

Addressing Root Causes: Several factors contributing to online gambling among college students were identified, including social environment, economic changes, peer influence, family dynamics, weak law enforcement, and easy access to technology. Solutions involve positive peer influence, financial literacy education, family values, counseling services, and stricter laws.

Treating Gambling Addiction: A comprehensive approach was proposed, focusing on building trust, encouraging critical thinking, experiencing gambling games together, training life skills, and promoting acceptance and understanding.

Legal Framework and Education: Updating the legal framework, defining roles and actions, targeting media platforms, and providing education about online gambling and risks were recommended.

Key Research Findings

Psychological Factors: The study identified cognitive biases, personality traits, social influence, and peer pressure as influential factors in online gambling susceptibility among university students.

Public Health Implications: Excessive gambling was linked to negative mental health outcomes, and exposure to online gambling propaganda was associated with gambling-related problems and addiction risks among university students.

Communication Strategies: Media literacy interventions were found effective in enhancing critical thinking skills and resistance to online gambling propaganda. Social marketing campaigns also played a role in changing attitudes and behaviors.

Legal Framework and Regulation: The research assessed existing legal frameworks and regulatory bodies, identifying gaps and recommending improvements in protecting university students from deceptive gambling propaganda.

Information Technology: Technological tools, including browser extensions and machine learning algorithms, were explored for detecting and blocking online gambling propaganda. Educational platforms and gamified applications were developed for media literacy training.

Long-term Impact of Media Literacy Interventions: Longitudinal studies measured the effectiveness of media literacy programs in reducing susceptibility to online gambling propaganda over time, with spillover effects on other areas of students' lives.

Interdisciplinary Approach: The research suggests an interdisciplinary approach to media literacy education by integrating knowledge from psychology, public health, communication arts, IT, and communication to foster critical engagement and responsible media consumption in the digital era.

Promoting Responsible Online Behavior and Awareness: Strategies and educational materials were proposed to promote responsible online behavior and raise awareness about online gambling risks among university students, including workshops, guest speakers, informational campaigns, online resources, peer-to-peer education, counseling services, and involving parents and families.

Theoretical Concepts: The research draws on theoretical concepts such as the theory of persuasion, emotional intelligence theory, and self-esteem theory to understand and address the influence of propaganda and media on online gambling behavior.

In conclusion, the research underscores the need for comprehensive efforts in education, regulation, and addressing root causes to mitigate the negative impacts of online gambling among children and college students. By implementing the suggested solutions and understanding the psychological factors at play, we can better protect vulnerable populations and promote responsible online behavior.

Discussions

In this qualitative study titled "Cultivating Critical Minds: Interdisciplinary Strategies for Empowering University Students against Online Gambling Propaganda," researchers identified a significant lack of awareness and understanding among children and students regarding the risks of online gambling. Education plays a crucial role in addressing this issue. Integrating digital literacy and information about online gambling risks into the educational curriculum can equip students with the knowledge and critical thinking skills needed to responsibly navigate the digital landscape. Additionally, involving parents and families in these educational efforts can reinforce these messages at home.

Role of Mass Media and Regulation: The acknowledgment that mass media often promote gambling without adequately educating individuals about the associated risks highlights the need for a balanced approach. While media platforms should be held accountable for their content, it is equally important to empower individuals to discern between responsible entertainment and harmful propaganda. Collaborating with regulatory authorities and law enforcement agencies to monitor and enforce existing laws is essential. However, as mentioned, the challenges posed by foreign servers necessitate a focus on building public immunity through education and awareness campaigns.

Addressing Root Causes: The research identifies a multitude of factors contributing to online gambling among college students, ranging from peer influence to weak law enforcement. This underscores the complexity of the issue and the need for multifaceted solutions. While educational institutions can provide counseling services and promote financial literacy, a broader societal approach is required. Families, communities, and government agencies must work together to create a supportive environment that discourages harmful behaviors while fostering positive values and social support systems.

Treating Gambling Addiction: The specialist's proposal for a comprehensive approach to treating gambling addiction is noteworthy. Building trust, encouraging critical thinking, and promoting acceptance and understanding are integral components of a holistic treatment strategy. By addressing not only the behavior but also the underlying emotional and psychological factors, individuals can embark on a path to recovery and make lasting positive changes in their lives.

Legal Framework and Education: The specialist's recommendations regarding updating the legal framework and supplementary laws targeting media platforms are essential steps in combating online gambling propaganda. Clarity in defining roles and actions in online gambling is critical to effective regulation. Additionally, education about online gambling risks should be integrated into school curricula, emphasizing the legal and ethical dimensions of online activities.

Psychological Factors: The research findings on psychological factors, including cognitive biases, personality traits, and social influence, underscore the need to consider individual vulnerabilities in addressing online gambling propaganda. Tailoring interventions to target these specific factors can enhance their effectiveness in preventing gambling-related problems among university students.

Media Literacy and Propaganda: Media literacy interventions have been shown to empower students to critically evaluate media messages, including online gambling propaganda. By teaching students how to recognize emotional manipulation and differentiate between fact and opinion, we can equip them with the tools to resist deceptive messaging.

Emotional Intelligence and Self-Esteem: The role of emotional intelligence and self-esteem in susceptibility to propaganda highlights the importance of addressing individuals' emotional vulnerabilities (Salovey & Mayer, 1990). Media literacy education should incorporate emotional intelligence concepts to help students manage their emotional responses and make informed decisions. Additionally, fostering healthy self-esteem can reduce individuals' susceptibility to seeking validation through risky behaviors like online gambling (Ryan & Deci, 2000).

The interdisciplinary approach advocated in this research aligns with the dynamic nature of online gambling propaganda. By drawing from various disciplines (Knafo & Plomin, 2006), the research can develop a holistic understanding of the issue and craft effective strategies for prevention and intervention. The collaboration between experts from different fields enriches the insights and solutions presented in this research.

Conclusion and suggestions

Based on information provided by experts from in-depth interviews, strategies and learning materials that foster responsible online behavior among university students have been analyzed and classified by the researcher. This analysis includes raising awareness about the risks and consequences of online gambling as follow: Develop a comprehensive curriculum: Design a curriculum that integrates digital citizenship and online safety education, with specific modules addressing online gambling risks and responsible decision-making. Conduct interactive workshops and presentations: Engage students in discussions about responsible online behavior using real-life scenarios and case studies. Provide guidance on making responsible choices online. Invite guest speakers and experts: Bring in experts such as psychologists and addiction counselors to share insights into the psychological and financial impacts of online gambling and strategies for avoiding addictive behaviors. Create online resources and videos: Develop easily accessible and visually appealing educational materials about responsible online behavior and the risks of online gambling. Gamify learning: Incorporate interactive online games or quizzes that test students' knowledge about responsible online behavior and the risks of online gambling. Establish peer mentoring and role-playing activities: Create peer mentoring programs and conduct role-playing activities to simulate online scenarios, including those involving online gambling, to develop critical thinking skills and responsible decision-making. Engage parents and guardians: Organize informational sessions and provide resources for parents and guardians to monitor their child's online activities and discuss the risks of online gambling. Collaborate with community organizations: Partner with local community organizations to organize awareness campaigns and workshops on responsible online behavior. Remember to continuously update and adapt these strategies based on the evolving landscape of online behaviors and technologies. Tailor them to the specific needs and culture of your university community. Ongoing education and reinforcement are essential in promoting responsible online behavior.

Suggestions: Strategies and educational materials to promote responsible online behavior among university students and raise awareness about the risks of online gambling can include digital literacy programs, workshops and training sessions, awareness campaigns, peer education programs, collaborations with external organizations, integration into the curriculum, online platforms and resources, and research and evaluation. These approaches aim to provide comprehensive education, practical skills, and support systems to students, enabling them to make informed decisions online and avoid the negative consequences of online gambling. By employing these strategies, universities can foster a culture of responsible

online behavior and equip students with the necessary knowledge to navigate the digital world safely.

Summary of Recommendations: Universities can develop targeted educational campaigns on online gambling by creating awareness through social media, posters, and workshops, providing accurate and relatable information about the risks and consequences. They should collaborate with student organizations and engage faculty and staff to promote responsible behavior and support mechanisms. Establishing peer support networks, implementing monitoring and reporting systems, and partnering with external organizations will further enhance efforts. Continuous evaluation and updating of strategies based on feedback and emerging trends are crucial for the effectiveness of these campaigns.

New knowledge and the effects on society and communities

The novelty of the article's research on the prevalence of online gambling propaganda and its effects on university students, as well as the interdisciplinary approach proposed to address this issue, can have far-reaching effects on society and communities at various levels. Experts in relevant fields can provide additional insights on the potential impacts:

Public Health Experts: Public health professionals emphasize that the detrimental effects of problem gambling extend beyond individual mental health. The social and economic consequences, including increased healthcare costs and family disruptions, are substantial. Therefore, interdisciplinary collaboration can help society better understand the broader health implications and develop comprehensive strategies for prevention and intervention.

Psychologists: Psychologists can shed light on the psychological vulnerabilities that make university students particularly susceptible to online gambling propaganda. They may also suggest evidence-based interventions and therapeutic approaches to support affected individuals. Furthermore, they can emphasize the importance of early identification and treatment.

Lawyers and Legal Scholars: Legal experts can offer insights into the legal framework surrounding online gambling and advertising. They can explore potential legal avenues for regulating and curbing deceptive practices, advocating for stricter enforcement of existing laws, and even proposing new legislation to protect vulnerable populations.

Educators: Experts in education can provide guidance on integrating media literacy and critical thinking skills into the curriculum. They can design effective pedagogical approaches to ensure that students can comprehend and analyze online gambling propaganda, fostering a more informed and responsible generation.

Community Leaders: Local community leaders can play a crucial role in creating awareness about the issue. They can collaborate with universities and organizations to implement preventive programs and support services for those affected by problem gambling. Additionally, they can advocate for policies at the local level to address the issue more comprehensively.

Technology Experts: Experts in information and communication technology can delve deeper into technological solutions for reducing exposure to online gambling propaganda. They can provide guidance on the development and promotion of safer online environments through the use of advanced tools and software.

Media and Communication Specialists: Specialists in this field can contribute by analyzing the ways online gambling propaganda is disseminated through various media

channels. They can propose ethical guidelines for media outlets and advertising agencies, promoting responsible advertising practices.

Economists: Economists can evaluate the economic impact of problem gambling on local communities and society at large. They can quantify the costs associated with addiction and propose economic incentives for responsible gambling practices and addiction treatment.

Social Scientists: Social scientists can study the social dynamics and cultural factors contributing to the acceptance of online gambling propaganda. They can help design interventions that consider the social context in which gambling behavior occurs.

In summary, the interdisciplinary collaboration proposed in this research not only increases awareness and empowers university students but also has the potential to create a ripple effect throughout society. By engaging experts from various fields, society can develop a holistic approach to tackle the complex issue of online gambling propaganda and its consequences, ultimately leading to a safer and more informed digital environment for everyone.

Suggestions for future research

1. Examining the effectiveness of communication strategies in promoting media literacy and resisting online gambling propaganda.

2. Harnessing technology for media literacy: using AI to detect deceptive gambling advertisements and developing interactive educational platforms.

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The Development of the Phenomena- based Learning Model Accompanied by STEM for Enhancing Students' Competency in Science Learning Management

Kamolchart Klomim
Faculty of Education, Phetchabun Rajabhat University, Thailand
Boonsong Kuayngern[*]
Faculty of Education, Pibulsongkram Rajabhat University, Thailand
Suthep Dhamatrakool
Faculty of Education, Phetchabun Rajabhat University, Thailand
E-mail: kamolchat.klo@pcru.ac.th, boon.ku@psru.ac.th[*] and suthephs897@gmail.com
[*]Corresponding author

Abstract

The objective of this research is; 1) to study basic information in developing learning management model using phenomena as a base in conjunction with STEM learning management to enhance learning management science competencies for the student teaching practice, 2) to create and examine the quality of a learning management model using phenomena as a basis in conjunction with STEM learning management, in order to strengthen learning management science competencies for the student teaching practice, 3) to study the results of an experiment using a phenomenon- based learning management model in conjunction with STEM learning management, in order to strengthen learning management science competencies for the student teaching practice. A research and development process, the research methodology consists of the following 3 research steps; 1) research fundamental data for creating a learning management system, 2) create a learning management system and evaluate its effectiveness, 3) use the learning management approach to analyze the experiment's findings. The sample group is the student teaching practice in year 3, Faculty of Education, Phetchabun Rajabhat University, academic year 2023, totaling 25 people, this is obtained using a lottery approach of simple random drawing. The research instruments include a knowledge exam, a test of critical thinking on learning management design, and a test of drafting a learning management plan, and data analysis using t-statistics.

The results of the study found that; 1) The generation of learning management plans, student analyses, and curriculum analyses were deemed to be very acceptable based on the findings of the study of foundational data used to build the learning management model, 2) the results of creating and assessing the five components of the learning management system for quality; 1.1) principle 1.2) objective 1.3) learning content 1.4) learning activities and 1.5) measuring and evaluating learning outcomes, the five phases for planning educational activities are as follows; explore, engage, engineer, plan, and evaluation, 3) utilizing the learning management paradigm, the experiment's outcomes revealed that; 3.1) with a statistical significance of .05, the student teaching practice has a greater understanding of learning management science than they had before to their studies, 3.2) with statistical significance at the .05 level, the post- study learning design thinking capacity of the student teaching practice is higher than the 80% limit, and 3.3) if student involvement above the limit of 80%, the student

teaching practice may generate learning management plans after class, with statistical significance at the .05 level.

Keywords: Phenomena as a base, STEM learning management, Learning management science, Student teaching practice

Introduction

      The five-year operating strategy (2023–2027) of Phetchabun Rajabhat University places a strong emphasis on the realization of each person's potential throughout their lifetime. In addition to having a broad knowledge and skill set for the twenty-first century, the goal is for school-age and teenage students to love learning, be civically conscious, possess moral courage, be able to solve problems, and have enhanced capacities for adapting, communicating, and working well with others throughout their lives. The development guidelines are; 1) encourage the growth of 21st-century abilities, especially those related to synthesis, analytical thinking, solving challenging challenges, creativity, and teamwork, 2) promote the growth of career skills that are in accordance with national demands while encouraging the development of innovative thinkers, innovators, and entrepreneurs; this includes teaching individuals life skills that will enable them to coexist in and contribute to a multicultural society.

      Journal Royal's 13th National Economic and Social Development Plan (2023–2027) outlines indicator 1.4, which states that 30 percent of students will be enrolled in education to produce competency-based graduates. The plan aims to fully develop Thai people at all ages and ensure that they acquire the skills necessary for the modern world, possess traits that align with acceptable societal standards, morals, and ethics, are resistant to rapid changes, and can coexist peacefully in society. It is consistent with sub-strategy 1.2 to provide kids the digital literacy, self-awareness, and other skills they require for living, learning, and working. It consists of; 1) developing and implementing cutting-edge learning management strategies to help students take care of themselves, communicate, collaborate as a team, think critically through proactive learning management, and be inspired to take action through trial projects with schools that are ready and nearby colleges that support knowledge and proficiency in a variety of subjects, 2) A screening system that reflects teachers' professional competencies should be developed. Redesigning the role of the teacher from "instructor" to "coach" will help students learn by placing them at the center of the classroom and will help instructors achieve a high degree of professionalism. Planning the number of teachers required in each sector and creating a curriculum for producing teachers with academic preparation would improve the development and production of teachers, both in terms of quantity and quality. Furthermore, it aligns with sub-strategy 1.3, which emphasizes the need for students in higher education to gain the skills necessary to participate in the labor market and innovate in the future. It does this by highlighting the significance of higher education institutions in mitigating the learning decline caused by the COVID-19 pandemic, bridging the gap between the work and learning domains, and customizing learning to individual preferences. Lastly, it expands public-private partnerships in education management to foster and promote learning management innovation using high-tech educational innovation mechanisms, higher education institutions in the area are urged to raise academic standards and hire personnel who can support development initiatives while also being cognizant of the social context and local communities in order to produce a workforce that can satisfy the needs of the country.

A notice in the Royal Gazette announcing the specifics of the higher education standards committee on learning outcomes in accordance with the higher education qualification standards 2022 also included the word "learning outcomes". This means that the experiences, education, and training that students gain from their practical training or real learning while working during their undergraduate studies must align with the curriculum of the higher education institution, the industry, the nation, and the global community. It consists of at least 4 aspects namely; (4.1) "Knowledge" is defined as information acquired through study, research, or experiences as a result of the curriculum; it is information that is sufficient and necessary for applying to jobs, advancing knowledge in social interactions, and sustainable development for living in the digital age, (4.2) "kills" are aptitudes that develop through training and practice to become quick, quick, and skillful for social, academic, professional, and personal development. Some examples of skills for surviving in the digital age are inquiry skills, critical thinking, reasoning, creativity, learning, communication, collaboration, teamwork, leadership, entrepreneurship, problem solving, and multitasking skills, (4.3) "ethics" describes personal actions or behaviors that uphold morals, morality, and ethics for the good of the public and oneself, both in public and behind others' backs, examples of ethical behavior include public service, environmental preservation, honesty, kindness, generosity, and generosity, and (4.4) "character" refers to a person's personality, character traits, and values as they emerge through learning and applying experiences from the curriculum to be suitable for each level of qualification standards in higher education, these traits should reflect specific characteristics of a science, profession, or institution, examples of personal characteristics are reliable personality, friendly, charming, a leader, eager to learn, assertive, decisive, compassionate, loves working as a team, observant, think critically, have reason, adhere to correct ideals, protect the environment, sufficiency, equality in society, social responsibility, accepting differences in society, spending reasonably, responsibility, patient in professional work, careful, thorough, can be a role model, good personality, good communication, systematic thinking, self-confidence, have a sense of aesthetics, have an artistic personality, have an imagination, be creative, love playing, love performing, administrative, logical thinking, entrepreneurial, digital literacy, media literacy, technology literacy, information literacy, visual literacy, communication literacy, and social literacy etc. (Finnish National Board of Education, 2016)

National Economic and Social Development Plan No. 13 Regulations Published in the Royal Gazette (2023 - 2027) The Higher Education Qualification Standards 2022 and the Phetchabun Rajabhat University's 5-year operational plan (2023–2027) provide details on learning outcomes. This information was announced in the Royal Gazette. The data generated from cross-disciplinary problem solving that occurs in teamwork reinforces social constructivism and sociocultural learning theories. Planning activities is related to the management of STEM education and phenomenon-based learning because it aims to inspire students to be passionate creators of their own knowledge. Having said that, knowledge establishes the social context along with cultural artifacts without requiring the creation of new ones. It is possible to improve and promote youth learning, which will help young people develop their methodical thinking skills, by combining current information and resources and via cultural transmission. This is a growth of current knowledge that will result in the creation of new products and inventions in order to tackle the problem fully and precisely. (Silander, 2015)

The teaching and learning management science course has revealed that student teachers still struggle with a variety of abilities, including inquiry skills, problem solving, entrepreneurship, critical thinking, reasoning, creativity, and learning as well as

communication and teamwork. These skills must be applied in order to provide professional instruction and prepare pupils for future work. In order to improve competency in learning management science for the student teaching practice, the researcher would like to suggest study on creating a learning management model with phenomenon as a basis in collaboration with STEM learning management. The goal is raising the bar on education standards so that they will meet the needs of society and students alike and be successful in the future. (Mattila & Silander, 2015)

Findings from a study of theoretical concepts, learning management using phenomena as a foundation in conjunction with learning management for STEM education, and learning management using fundamental data for developing a learning management model will be brought to bear in this research. Learn from experts in STEM education. This gave rise to the idea of using STEM learning management and phenomena as the foundation to create the most appropriate learning management system possible at the highest level. This is the outcome of reading up on the subject and consulting experts to figure out how to develop a learning management model that employs phenomena as a basis and integrates STEM learning management in a clear and practical manner. The results of creating and assessing a learning management system that uses STEM learning management, phenomenon- based learning management, expert evaluation, and a pilot project to gauge implementation feasibility. To the greatest extent possible, it is thus ensured that the learning management model developed may be used to accomplish the objectives in accordance with learning management, learning management, and user manual. As well as the results of the experiment to combine STEM learning management with the phenomenon- based learning management model to enhance learning management science capabilities for student teaching practice. (Valanne et al., 2017)
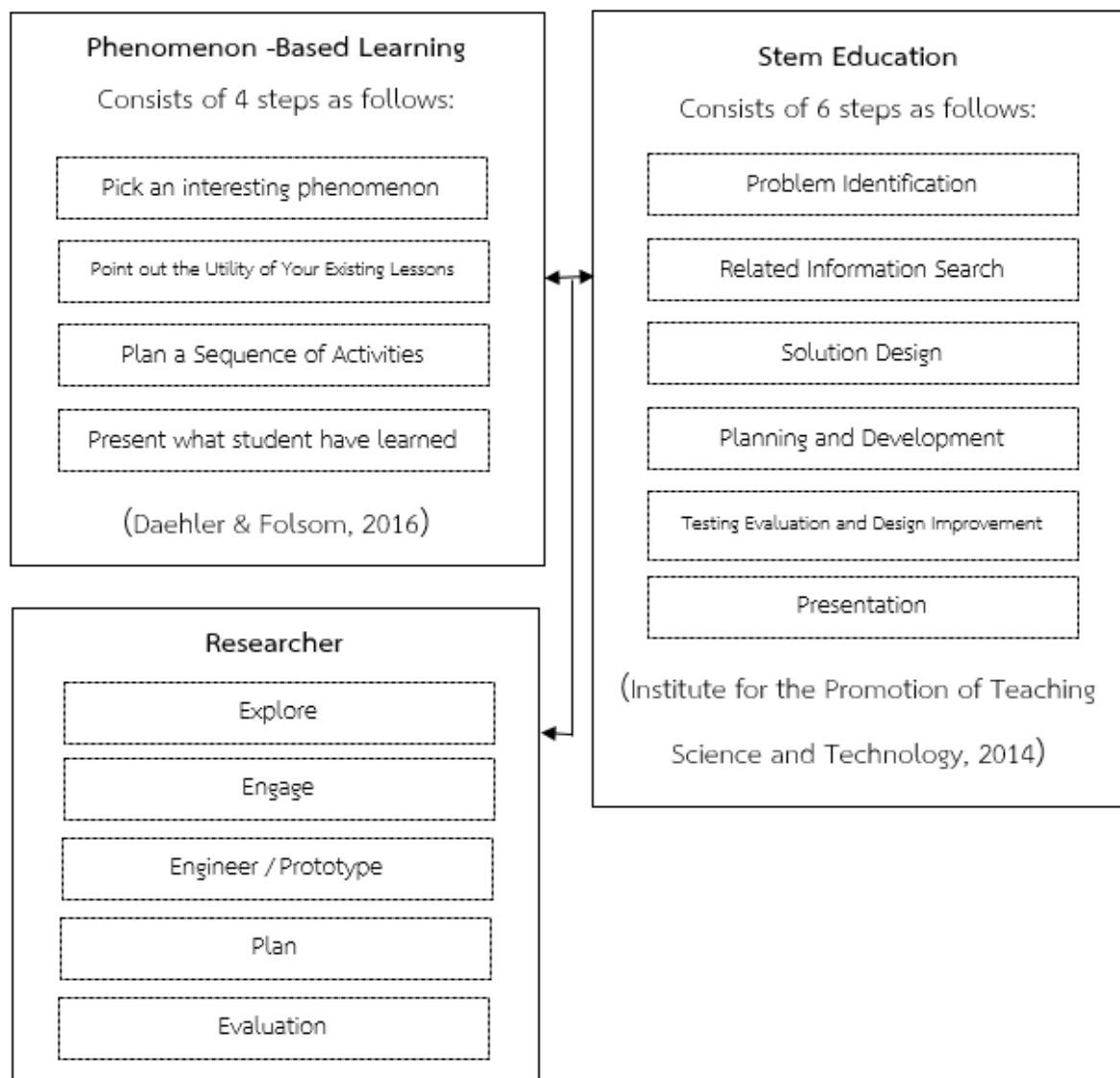
Objective

1. To study basic information in developing learning management model using phenomena as a base in conjunction with STEM learning management to enhance learning management science competencies for the student teaching practice.

2. To create and examine the quality of a learning management model using phenomena as a basis in conjunction with STEM learning management, in order to strengthen learning management science competencies for the student teaching practice.

3. To study the results of an experiment using a phenomenon- based learning management model in conjunction with STEM learning management, in order to strengthen learning management science competencies for the student teaching practice.

Research Framework

In this study, the researcher employed STEM learning management and a framework for learning management based on phenomena, which may be explained in more detail as follows; the goal of phenomenon- based learning is to investigate phenomena that go beyond the scope of the given course, the beginning of the teaching and learning process involves real-world occurrences. Focuses on students producing information on their own, and as knowledge is the outcome of solving problems, it provides students with a comprehensive viewpoint on the numerous phenomena being analyzed. In a classroom where phenomenon- based learning is practiced, the teacher's job is to guide the students toward their objectives rather than merely imparting knowledge to them. In addition to helping students learn how to ask questions, which opens up exciting and novel research opportunities, teachers must comprehend and investigate a variety of phenomena alongside their pupils. It is so difficult to execute a phenomenon-based learning strategy, even in developed nations, but because the advantages to students outweigh

this difficulty, it might be difficult for Thai instructors to encourage phenomenon-based learning, also known as PhenoBL, among Thai youngsters. (Daehler & Folsom, 2016)

When it comes to structuring STEM education, the researcher places an emphasis on integrated learning, which combines knowledge and abilities from several sciences through project- or activity-based learning that is appropriate for the kids' ages. Because thinking skills, technology use, problem solving, and communication are all crucial skills in the modern world, STEM education will assist students in developing these skills. In addition, students will acquire holistic knowledge that can be connected to or applied in everyday life. In light of this, STEM education refers to a teaching strategy that combines science, technology, and engineering. and mathematics begin to focus on resolving issues in everyday life. Also, to improve the experience Students that possess life skills are better prepared for careers in fields such as science, math, technology, and the arts. STEM education must be effectively integrated into classroom instruction if it is to foster future creativity. (Institute for the Promotion of Teaching Science and Technology, 2014)

Figure 1 Research Framework

Methodology

In this study, there are three phases in the research and development process;

Step 1: Study basic information in developing learning management model using phenomena as a base in conjunction with STEM learning management to enhance learning management science competencies for the student teaching practice.

To improve learning management scientific abilities for the student teaching practice, examine and evaluate key foundational data pertaining to the creation of a phenomenon-based learning management model in conjunction with STEM learning management.

Information providers include: three specialists in learning management formats for the academic year 2023 who use phenomena as a foundation and STEM learning management to improve learning management science abilities for the student teaching practice.

The tools used in the research include: interview that is structured around the requirements for developing capabilities in learning design and the best practices for fostering such competencies during student teaching. The fundamental idea behind a structured interview is that all respondents should be given the same questions in the same order, and the questions themselves should be predetermined. As a result, the interviews for this study must follow a pre-planned interview format. This format will include a set of questions that will enable the interviewer to ask precise questions and avoid straying from the subject, such as ensuring that the limits are not exceeded and allowing for the comparison of the data collected. (Kaewthep, 2015) There are steps for creating and determining the quality of the tools as follows; 1) research the idea of competency in learning design for student teaching practice, the researcher has researched the idea of building competencies in learning management for student teaching practice in a number of fields from relevant organizations, including; (1) bachelor's degree qualification standards department of education and department of education (four year course) of the year 2019 on teaching strategies, (2) office of the teachers council committee (2013) regarding knowledge professional competencies and experiences of teaching professionals, and (3) office of the secretariat of the education council (2019) regarding guidelines for developing learner competency at the basic education level, (4) office of the national economic and social development office (2008) regarding the management of phenomenon-based learning in conjunction with the management of STEM education, 2) the created interview form was presented to 3 experts to check for content validity by calculating the index of consistency (IOC), which has a consistency value between 0.80-1.00, and 3) the interview form was edited, improved, and prepared as a complete interview form.

Data Collection

1. To obtain information about the need to develop competencies in learning design and instructions for developing them for the student teaching practice, conduct expert interviews.

2. Proceed with the development of a learning management model using phenomenon as a basis in conjunction with STEM learning management to enhance learning management's scientific capabilities for the student teaching practice.

Data Analysis

Analyze qualitative research data by analyzing content analysis in an inductive analysis.

Step 2 : Create and examine the quality of a learning management model using phenomena as a basis in conjunction with STEM learning management, in order to strengthen learning management science competencies for the student teaching practice.

The development of a learning management model that uses phenomena as a foundation in conjunction with STEM learning management to improve learning management scientific abilities for student teaching practice can be achieved through the review of pertinent literature, appropriate research, and expert consultation. Additionally, the effectiveness of learning management models that use phenomena as a foundation in conjunction with STEM learning management to improve learning management science abilities for the student teaching practice can be evaluated by testing it with thirty second-year students in the first semester of the 2023 academic year at the Faculty of Education, Phetchabun Rajabhat University, which is not a sample group, can be done to determine its efficacy.

Sample Groups

The sample group used in the research was 30 second- year teaching students, Faculty of Education, Phetchabun Rajabhat University, academic year 2023, which was obtained from simple random sampling using the lottery method.

Research Tools

1 . An assessment is conducted on how well the elements of the phenomenon- based learning management model work together with STEM learning management to enhance learning management science competency for student teaching. including measuring and assessment procedures, learning management systems, content, goals, and philosophies. Three experts reviewed the 5-level rating scale assessment form to ensure content validity. The results of the consistency check, which was measured by computing the index of consistency (IOC) , ranged from 0.80 to 1.00.

2. The objective is to evaluate the handbook's suitability for use with the phenomenon-based learning management model in conjunction with STEM learning management for student teaching practice, as well as the components of the manual and learning management plan. The content validity of the 5-level rating scale was assessed by three experts through the calculation of the Index of Conformity (IOC). The consistency check scores ranged from 0.80 to 1.00.

Collection of Information

1. To enhance learning management science competency for the student teaching practice, compile data from the evaluation of the phenomenon- based learning management model's component parts in conjunction with STEM learning management.

2. Gather data from the evaluation of the handbook's applicability to the phenomenon-based learning management model in combination with STEM education for the student teaching experience.

Data Analysis

1. Take into account if the components of the phenomenon-based learning management model are acceptable in conjunction with STEM education management to improve learning management science competency for the student teaching practice, by finding the average and standard deviation the interpretation criteria are as follows; (Wongratana, 2007)

An average of 4.50 – 5.00 means it is most appropriate
An average of 3.50 – 4.49 means it is very appropriate
An average of 2.50 – 3.49 means it is moderately appropriate
An average of 1.50 – 2.49 means it is less appropriate
An average of 1.00 – 1.49 means it is least appropriate

2. Take into account if the manual is adequate for implementing the phenomenon-based learning management model in tandem with STEM education for the student teaching practice, by finding the average and standard deviation the interpretation criteria are as follows; (Wongratana, 2007)

An average of 4.50 – 5.00 means it is most appropriate

An average of 3.50 – 4.49 means it is very appropriate

An average of 2.50 – 3.49 means it is moderately appropriate

An average of 1.50 – 2.49 means it is less appropriate

An average of 1.00 – 1.49 means it is least appropriate

3. Determine the values E1 and E2 to determine the effectiveness of the learning management model utilizing phenomenon as a basis in conjunction with STEM education for the student teaching practice in accordance with the stipulated criteria 80/80.

Step 3 : Study the results of an experiment using a phenomenon-based learning management model in conjunction with STEM learning management, in order to strengthen learning management science competencies for the student teaching practice.
Studying the outcomes of an experiment utilizing a phenomenon-based learning management model in conjunction with STEM learning management can help to improve the student teachers' ability to use learning management science, these include; 1) examine the differences between pre- and post- class knowledge and comprehension of learning management science, 2) compare the 80% criterion with the expertise in learning management design thinking, and 3) compare the competency in writing learning management plans with the 80 percent criteria with 25 third-year students, semester 1, academic year 2023, Faculty of Education, Phetchabun Rajabhat University, using an experimental design with a single group and only posttest-only design. (Kanchanawasi et al., 2004)

Population and Sample
The population used in the research is the student teaching practice who is studying in the 3rd year of the Faculty of Education, Phetchabun Rajabhat University, in the academic year 2023, totaling 250 people.

The sample group used in the research is the student teaching practice students studying in the 3rd year of the Faculty of Education, Phetchabun Rajabhat University in the academic year 2023, and a total of 25 people, which was obtained by simple random sampling by lottery method.

Instruments Used in the Experiment
1. One version of the test of knowledge and understanding of learning management science, which involves creating and determining the quality of the tool, which includes the steps for creating and finding the quality of the tool as follows; 1. 1) research learning management design-related materials, theories, and studies, 1.2) research learning management strategies and techniques for developing competence exams, 1. 3) design a knowledge exam paired with STEM learning management, knowledge of phenomenon- based learning management design, 1. 4) the created test was presented to 3 experts to check for content validity by calculating the index of consistency (IOC), which has a consistency value between 0.80-1.00, and 1.5) use a trial test on 30 students who are not part of the sample to examine the difficulty value and discriminating power in light of the predetermined criteria, which obtained a difficulty value (P) of 0.25 - 0.89 and a discriminatory power value (r) of 0.20 - 0.60 for 30 questions and found the confidence value, by finding Cronbach's Alpha Coefficient, which has a value equal to 0.89.

3. One copy of the competency assessment form for drafting learning management plans that contains the stages for developing and evaluating the quality of tools, as well as the competency assessment form itself; 1.1) research learning management design- related materials, theories, and studies, 1.2) research techniques for developing and accessing competences in the creation of learning management systems, 1.3) in connection with STEM learning management, develop and assess abilities in designing learning management plans using phenomena as a basis, 1.4) present the created evaluation form to 3 experts to check for content validity by calculating the index of consistency (IOC), which has a consistency value between 0.80-1.00, and 1.5) use the evaluation form to test with 30 non-sample students, to analyze the confidence value, by finding Cronbach's Alpha Coefficient which is equal to 0.87.

Collection of Information

1. Conduct a pre-test with third-year teaching students, Faculty of Education, Phetchabun Rajabhat University, in the academic year 2023, a total of 25 people, and 30 questions.

2. To improve learning management scientific abilities for the student teaching practice, test a phenomenon-based learning management model in conjunction with STEM learning management.

3. When completed, a post-test was conducted with 3rd year teaching students, Faculty of Education, Phetchabun Rajabhat University, in the academic year 2023, a total of 25 people, and 30 questions.

4. Conduct a comparative evaluation of the learning management design thinking competencies of the phenomenon-based learning management model combined with STEM education teaching management to strengthen the learning management science competencies for the student teaching practice., with 3rd year teaching students, Faculty of Education, Phetchabun Rajabhat University, in the academic year 2023, totaling 25 people.

5. Conduct a comparative assessment of the learning plan writing competencies of the student teaching practice, with the 80 percent criteria, with the 3rd year student teaching practice, Faculty of Education, Phetchabun Rajabhat University, in the academic year 2023, totaling 25 people.

Data Analysis

1. Compare knowledge and understanding of learning management science before and after learning with a phenomenon-based learning management model combined with STEM learning management, using a t-test for dependent, in order to improve competency in learning management science for the student teaching practice.

2. Compare the learning management design thinking abilities of the phenomenon-based learning management model with STEM education learning management using a t-test on a single sample to enhance learning management science abilities for student teaching practice with the percentage criterion of 80.

3. Utilizing a t-test for a single sample, examine how successfully creating learning management plans is executed utilizing the phenomenon-based learning management model in conjunction with STEM learning management to enhance learning management science skills for the student teaching practice.

Results

1) The results of the study of basic information in developing a learning management model using phenomena as a base in conjunction with STEM learning management to enhance competency in learning management science for the student teaching practice.

The tools used in the research include: interview that is structured around the requirements for developing capabilities in learning design and the best practices for fostering such competencies during student teaching, which can be summarized as follows;

1.1) the outcomes of the learning management design preparation for the student teaching practice can be summed up as follows; findings to get ready for the learning management system that will be used to evaluate the curriculum and determine the learning objectives of the students, and to improve students' impressions of the teaching profession during their student teaching experience. In addition, offer courses that support learning management design and delineate formats, strategies, and tactics for educators, this will enable students to apply knowledge design methodologies and critical thinking skills, as well as get ready to create teaching and learning strategies that will help students put what they've learned into practice.

1.2) Results of activities in designing learning management of the student teaching practice, summarized as follows; (1) the 2008 Basic Education Core Curriculum, student curriculum, learning standards, indicators, core learning materials, and current learning management challenges should all be examined in order to improve effectiveness. Learning management is information-driven, (2) examine students, teaching professionals, in terms of their past knowledge, preparedness and abilities to learn, interests, aptitudes, personalities, and other attributes, (3) learning objectives that are specific, cover information, and promote learner growth are necessary for professional teaching students to increase learner learning in terms of knowledge, process skills, and attitudes, (4) students who work as teaching professionals select information that is correct and compliant with relevant learning objectives, indicators, and standards, (5) instruct students to carefully review the assignments they are given in accordance with the specified learning units, these assignments may include portfolios including evidence, speaking reports, diagram writing, and innovative projects, (6) provide a list of learning management activities and media, advise professional students to select learning activities in line with learning objectives and content, emphasize active learning management and have students apply it, and make use of a variety of learning management media, (7) students of teaching professionals determine measurement and evaluation in accordance with indicators, standards, and learning objectives covering knowledge, skills, processes, and attitudes. A variety of tools, such as behavioral assessments, performance evaluations, forms of observation, and testing, are used in these assessments, and (8) with the following components, teacher students build learning management plans: learning objectives, learning standards, learning indicators, and important points; learning content; learning management activities; learning media; and defining measurement techniques and evaluation criteria.

It is evident that incorporating real-world scenarios to learning makes sense when structuring learning around phenomena. The results demonstrate that a STEM education strategy, with an emphasis on integrating knowledge and abilities across topic areas, aids in the development of knowledge and skills relevant to the twenty-first century. Incorporating math, science, technology, engineering, and science to encourage the kind of practical problem-solving thinking that is crucial to 21st-century living. Nonetheless, studying STEM ideas and

learning utilizing phenomena as a foundation are comparable in that both emphasize problem solving that can be used in real life and the development of knowledge and skills.

2) The results of creating and inspecting the quality of a learning management model using phenomena as a base in conjunction with STEM learning management to strengthen learning management science competencies for the student teaching practice.

The following findings serve the purpose of creating and examining the quality of a learning management model using phenomena as a basis in conjunction with STEM learning management, in order to strengthen learning management science competencies for the student teaching practice. At this point, the results were gathered through data collection from the evaluation of the STEM learning management and phenomenon-based learning management model's component parts, which can be summarized as follows;

2.1) The outcomes of developing a learning management model using phenomenon as a foundation and STEM learning management in combination to improve learning management science abilities for student teaching practice, including crucial components such as; 1) history of the model, 2) principles, 3) aims of the learning management model, 4) learning management activities, and 5) measurement and evaluation, via paying close attention to the five stages of the learning management model's workflow: explore, engage, engineer, plan, and evaluate. It is appropriate to combine STEM learning management with the phenomenon-based learning management paradigm. By specialists evaluating appropriateness, which is at the highest level with an overall suitability rating of $\overline{X}$ = 4.55, S.D. = 0.55, regarding the handbook for implementing the phenomenon-based learning management model in tandem with STEM education management, it has an overall appropriateness rating of $\overline{X}$ = 4.54, S.D. = 0.45 at the highest level.

2.2) The outcomes of evaluating the effectiveness of the learning management model utilizing phenomenon as a foundation and STEM learning management to strengthen learning management scientific abilities for the student teaching practice. In order to improve competency in learning management science, it was discovered that the average score achieved when studying using a phenomenon-based learning management model in conjunction with STEM education was 83.20 percent, and the average academic accomplishment scores after using a phenomenon-based learning management model along with STEM learning management to improve competency in learning management science, which was assessed to be 85.60 percent. That is, a phenomenon-based learning management model paired with STEM learning management to improve learning management science competency has an efficiency of 82.16/84.83, which satisfies the required 80/80 efficiency requirement.

Based on the aforementioned research, it can be concluded that while the idea of STEM education and the concept of phenomenon-based learning management are similar, there is a distinction between the two concepts of organizing learning: using real conditions as the basis for learning and organizing learning based on phenomena. The study discovered that from the features of problem-based learning, which is how the idea of STEM education is structured, crucially, the user may decide which of the two ideas' advantages to combine to create a learning management guideline that supports the growth of students' superior applied thinking.

3) Results of an experiment using a phenomenon-based learning management model combined with STEM education to enhance competency in learning management science for the student teaching practice.

The aim of this study is to enhance learning management science abilities for student teaching practice by analyzing experiment results using a phenomenon-based learning management model in conjunction with STEM learning management. The following findings address this goal. This is the result of using the created learning management model to test with

teaching students studying the course learning management design (EDCI 201) in the first semester of the academic year 2023, totaling 25 people. The following findings were based on a single-group experimental design and only a post-test, which resulted in summary results as follows;

3.1) With statistical significance at the .05 level, students who received both STEM and phenomenon-based learning management to enhance their learning management science competency for the student teaching practice demonstrated increased knowledge and comprehension of learning management science following their studies.

Table 1 Presents the findings from comparing knowledge and comprehension scores in learning management science between baseline and post-study conditions

Test	N	Full score	$\bar{X}$	S.D.	$\bar{D}$	t	p-value
pre-test	25	30	14.92	1.07	10.04	68.31	.00
post-test	25	30	24.96	1.06			

*p<.05

From Table 1 it is found that the student teaching practice has knowledge and understanding of learning management science between before and after class using a phenomenon-based learning management model combined with STEM learning management with an average score of 14.92 points and 24.96 respectively, and when scores are compared before and after studying, it can be said with statistical significance at the .05 level that teaching students have a better comprehension of learning management science after studying than before studying.

3.2) After learning, students who got phenomenon-based learning management in addition to STEM learning management had learning design thinking abilities that were considerably above the predetermined 80% criterion at the .05 level.

Table 2 Shows the results of comparing competencies in learning design thinking, post-test scores with the 80 percent criteria

Test	N	Full score	$\bar{X}$	S.D.	μo (80%)	t	p-value
post-test	25	30	25.12	1.05	1.12	5.31	.00

*p<.05

From Table 2 teaching students have an average score of 25.12, which accounts for 83.83 percent of their proficiency in creating learning management systems. In addition, while contrasting the criteria and competency ratings for learning management design thinking. Therefore, it can be said that after studying using the established model above the 80% cutoff, with statistical significance at the .05 level, teaching students have the capacity to conceptualize and construct learning management.

3.3) Students who receive phenomenon-based learning management in addition to STEM learning management to strengthen learning management science competencies for the student teaching practicum have the capacity to produce learning management plans after studying above the 80% cutoff specified with statistical significance at the .05 level.

Table 3 Shows the results of comparing the competency in writing learning management plans, the scores after studying with the criteria of 80 percent

Test	N	Full score	$\bar{X}$	S.D.	μo (80%)	t	p-value
post-test	25	30	25.20	1.19	1.20	5.04	.00

*p<.05

From Table 3 it is found that teaching students' competency in writing learning management plans has an average score of 25.20, or 84.00 percent, and when comparing the criterion with the competence scores for writing learning plans, it can be said that teaching students' competency in writing learning plans after studying using the established format is much greater than the 80% requirement at the .05 level.

Discussions

In order to enhance learning management science competency for student teaching practice, a phenomenon-based learning management model should be developed in tandem with STEM learning management. This raises interesting questions that merit discussion, with the following details;

1) The results of a study of theoretical concepts, learning management using phenomena as a foundation in conjunction with learning management, and research of basic data for developing a learning management model for STEM education discover more about STEM education from experts. This gave rise to the idea of using STEM learning management and phenomena as the foundation to create the most appropriate learning management system possible at the highest level. This is the outcome of reading up on the subject and consulting experts to figure out how to develop a learning management model that employs phenomena as a basis and integrates STEM learning management in a clear and practical manner. According to Butkatanyu (2018), learning with phenomena as a base can help students become knowledge creators and innovators, keep them abreast of changes in the digital age, and foster a holistic view and access to the real world of learners. Therefore, learning with phenomena as a base can be one effective way to promote knowledge among students. It also aligns with the findings of Mahawijit (2019) study on the application of learning ideas to improve students' 21st-century learning skills by utilizing active learning in primary school courses and using phenomena as a basis for learning.

2) The results of creating and testing a learning management system that combines STEM learning management with phenomenon-based learning management, as well as expert advice and a pilot project to gauge implementation feasibility. Hence, it is ensured that, to the greatest extent possible, the learning management model developed may be used to accomplish the goals in accordance with learning management, learning management, and user manual. This is in line with the research of Wettong (2018) who developed a brain-based teaching model to promote Thai reading and spelling skills for first grade students, it was found that 21 students had reading and spelling skills in Thai that passed the criteria of 80 percent, accounting

for 87.50 percent of the total number of students, which is higher than the specified threshold of 80 percent or more. This is in line with the research of Phodong (2017) who developed a self-directed learning model to strengthen the learning design ability of student teachers at Rajabhat University, with statistical significance at the.05 level, it was discovered that student instructors had greater knowledge and comprehension of learning design than they had previously.

3) The experiment's results, which combined STEM learning management with the phenomenon-based learning management model to enhance learning management science capabilities for student teaching practice, with the following information;

3.1) With the learning management model and phenomena as a common foundation for STEM learning management, the results of comparing students' knowledge and understanding of learning management science before and after studying showed that, when scores are compared before and after studying, it can be said with statistical significance at the.05 level that teaching students have a better comprehension of learning management science after studying than before studying. Students' average scores for learning management science between before and after studying were 14.92 and 24.96 points, respectively. The reason for this is that learning management is designed with phenomena as the basis and combined with STEM learning management to improve learning management science competencies for students undergoing professional teaching experience. This is done in compliance with academic principles that align with learning management theories, concepts, and principles. As a result, after studying more than before, teaching students have a greater comprehension of learning management science. This is in line with the findings of Samahito (2019) study on the planning of educational experiences. Research has shown that utilizing STEM education in conjunction with phenomena as a basis for early childhood education is a suitable learning arrangement for this age group. Therefore, utilizing phenomenon-based learning experiences to organize learning activities is a learning management strategy that promotes children's development of life, career, and learning abilities, particularly critical thinking and problem solving, which are crucial components of learning management in the twenty-first century.

3.2) Outcomes of contrasting test scores with the 80 percent proficiency threshold for developing learning management systems. Teaching professional students demonstrated competency in learning management design thinking, with an average score of 25.12, or 83.83 percent, when the criteria were compared with the competence scores in that area. Thus, it can be concluded that teaching students possess the ability to conceive and create learning management after utilizing the developed model to study beyond the 80% cutoff with statistical significance at the .05 level. This is the final product of the process that was used to organize the teaching and learning activities for the model developed using the concepts of STEM and phenomenon-based learning management. Various processes were made available to students to aid in the development of their critical thinking and learning management skills. Consistent with the research of Phodong (2017) it was found that the data on learning design thinking ability was 88.10 percent, higher than the 80 percent criteria set at the statistical significance level .05. Furthermore, it aligns with the findings of Nuankham (2019) which examined the effects of utilizing a social media activity set grounded in a phenomenon-based concept in conjunction with an examination of primary school students' digital literacy practices, it was discovered that when students use the concept-based social media use activity, they create a variety of digital literacy behaviors, this phenomenon is based on common reflections.

3.3) According to research using the criterion score of 80 percent, the average score for teaching students' ability to write learning plans was found to be 25.20, or 84.00 percent. When the criterion is compared with the competence scores for writing learning plans, it can be concluded that teaching students' competency in writing learning plans after studying using the established format is much greater than the 80% requirement at the.05 level. This is done in order for students to become more adept at developing learning management plans as a result of their activity designs aligning with learning management science competencies. This is consistent with the research of Karimah & Kasetchai (2016) which found that the learning management plan using the 7-step learning cycle (7 Es) had an efficiency of 83.16/85.50. This is consistent with Phodong (2017) who found that the ability to write learning management plans of student teachers was 82.13%, higher than the 80% threshold specified at the statistical significance at the .05 level. This is due to the fact that the learning management model incorporates the royal science, which has been methodically established as previously indicated, and that the components of organizing learning activities follow the stages, enabling teaching professionals to produce more learning plans.

Conclusion and suggestions

The development of the phenomena- based learning model accompanied by STEM for enhancing students' competency in science learning management, which has the following recommendations;

1. Suggestions for using research results

1.1 Teachers should research effective teaching strategies for the subject matter before using the phenomenon- based learning management model and STEM education management, they should also use lesson plans to arrange teaching and learning in a way that achieves the desired goals.

1.2 The learning management model ought to be made public as a substitute for teachers who want to arrange classroom activities differently.

2. Suggestions for future research

2.1 To determine whether other teaching techniques can implement the learning management created by the researcher in accordance with the same or different standard criteria, the phenomenon- based learning management model should be used in conjunction with the STEM learning management that the researcher created and tested with additional samples using the active learning management method.

2.2 To build the community of professional learning in educational institutions that society requires, the phenomenon- based learning management model should be merged with the STEM learning management that the researcher created and tested with other disciplines.

New knowledge and the effects on society and communities

Community-based education, or community-based education, has an understanding of the problems with education development in the Thai educational system. Since schools and other educational institutions are big production centers, they serve as a vehicle for the development of individuals as well as the nation's development to keep up with global trends. Education also helps Thai people become aware of other nations that are making progress, and Thai people value education highly in a competitive environment like this one. throughout life and using information as a tool to enhance life quality, being able to apply knowledge to better

govern oneself. Conversely, the educational model offered by educational institutions isolates individuals from their family, community, locality, temples, places of worship, nature, environment, and morality all of which serve as links that enable people to grow into fully realized human beings to the point where people nearly forget their origins, way of life, and identity.

Active learning management learning and interdisciplinary utilizing phenomena as a basis are the focus of teaching and learning using this approach. However, multidisciplinary ideas have not yet been effectively implemented in Thailand's active learning teaching methodology, despite its lengthy history. Therefore, if student teaching is to be used in Thailand, it must be prepared in phases, to achieve this one must first experience with teaching and learning in their own classroom before researching the positive aspects. The findings were subsequently made more widely available both nationally and at the school level (pilot). Instructors are already utilizing such learning management models in their classrooms to some level, but there are still not many of them. (Dhedchawanagon, 2023) These models are raising awareness and inspiring instructors to arrange learning with an emphasis on learners in Thailand right now. In which teachers continue to educate using an outdated method that is more closely related to the images they remember seeing in the classroom and is focused on subject matter rather than skill and process development.

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Factors Affecting the Competitive Advantage of Thai Entrepreneurs in Adapting to Survive During the Epidemic Crisis of Coronavirus Disease 2019

Thanaphon Ratchatakulpat, Thanakon Ratchatakulpat, Sirikarn Tirasuwanvasee and Gumporn Supasettaysa*

Business Administration Program in Management, Faculty of Business Administration,
Rajamangala University of Technology Phra Nakhon, Thailand
E-mail: thanaphon.r@rmutp.ac.th, thanakon.r@rmutp.ac.th, sirikarn.t@rmutp.ac.th
and gumporn.s@rmutp.ac.th*
*Corresponding author

Abstract

The study aims to identify characteristics of Thai entrepreneurs affecting the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. Factors determine the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019 and guidelines for gaining competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. The researcher used a quantitative method from a sample group of 384 business owners in Bangkok, Thailand. The sample group is a company located in Bangkok. In essence, Bangkok is a strategic location and economic hub of Thailand that is good for a supportive business environment and economic advantages, making researchers specific in this area. Questionnaires were used to collect data. The data was analyzed to explain the study, including frequency distribution, percentage, average deviation, and correlation testing, and was processed using the SPSS (Statistical Package for Social Science) statistical multiple regression analysis in formula ($y = a+\beta_1 x_1+\beta_2 x_2+\beta_3 x_3+\beta_4 x_4+\beta_5 x_5+\varepsilon$) forecast statistics ($R^2$). The results showed that 1) the characteristics of Thai entrepreneurs affecting the competitive advantage are autonomy, innovativeness, risk-taking, competitive aggressiveness, stability & learning, and achievement were high 2) the competitive pressure affects the competitive advantage of Thai entrepreneurs, which are pressure from existing competitors, pressure of substitute products and bargaining power of material suppliers determine Thai entrepreneurs affecting the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. Meanwhile, pressure from new competitors and pressure from bargaining power will not help Thai entrepreneurs, affecting the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. The characteristics of entrepreneurs and competitive pressure affect positive competitive advantage in cost, quality, innovation, and quick response, directly affecting Thai entrepreneurs' competitive advantage.

Keywords: Entrepreneurial characteristics, Competitive pressure, Competitive advantages

Introduction

At present, various organizations in Thailand and abroad have encountered the problem of the COVID-19 epidemic, which is an unprecedented situation. Therefore, the organization must adjust its form and culture to drive and continue to operate efficiently. The COVID-19 epidemic has spread worldwide for more than half a year. More than 100 million people are infected, especially in the United States, and the number of infections is still a concern. (Pliphat, 2020) The progress of a nationwide vaccination program represents a significant potential to mitigate future outbreaks and protect the Thai economy from the impact of COVID-19 as we move toward the "New Normal." The social context and transformational change will be essential in resolving this crisis efficiently, which cannot be compared to any other historical situation. The widespread outbreak of the COVID-19 virus has become a global health crisis affecting millions of people's lives. Governments in many countries have to take strict measures to control the spread. As a result, economic activities were disrupted, and this shocking event affected countries worldwide, including Thailand. The production halted along with reduced income and purchasing power, with the severity of the situation escalating into a crisis. There is a simultaneous crisis of both supply and demand. Brinca et al. (2021)

Incidentally, organizational culture changes working style and the use of new strategies to drive the organization for maximum efficiency, such as entrepreneurs of community products in different regions, entrepreneurs of innovative businesses start-up enterprises, Gem and Jewelry industry groups, and street food business groups. To create opportunities to learn and use digital tools and technologies to increase business management efficiency, develop processes that improve production potential, and increase the value of products and services creatively and professionally. However, developing knowledge and skills of digital technology of entrepreneurs and small enterprises to compete and create benefits in business operations requires time to accumulate and learn modern knowledge to develop further. The benefits are appropriate to the context of each type of business and each size. In addition, the situation of the epidemic of COVID-19 still spread. Therefore, the operation may not be comprehensive and cannot be performed efficiently. The issue of creating an environment and ecosystem conducive to solving financial liquidity problems allows access to quality digital technology at a reasonable price, which is an essential factor affecting most entrepreneurs' decision to adopt digital technology to run their business, which is part of the results can drive business to achieve its goals.

Since the end of March 2020, Thailand and countries worldwide have had lockdown measures to solve the spread of COVID-19. It has a meager mortality rate from the total number of infected people compared to other countries. This indicates good public health management with cooperation from all sectors, including government, private and public sectors. However, in December 2020, Thailand had to face the outbreak of COVID-19 new ripple again. With this latest round of explosions starting in January 2021, there are hundreds of infected people per day. There is a high probability that a large epidemic will cause fear in people. As a result, the intention to visit densely populated areas has decreased. This will last until authorities enforce more stringent disease management strategies. Organizations must be aware of the strict measures governments take to control the spread of the disease. Unfortunately, this harmed the effectiveness of the lockdown imposed in April 2020, leading to expanding economic costs, such as the government spending a large budget to care for those affected. Due to the current situation, the government focuses on economic recovery and

supporting all business sectors. Poor management and planning during these challenging times can result in serious financial setbacks, which causes businesses and organizations to experience many problems and may even have to close down. Entrepreneurs need to assess the situation and plan carefully to cope with the consequences of the lockdown from COVID-19.
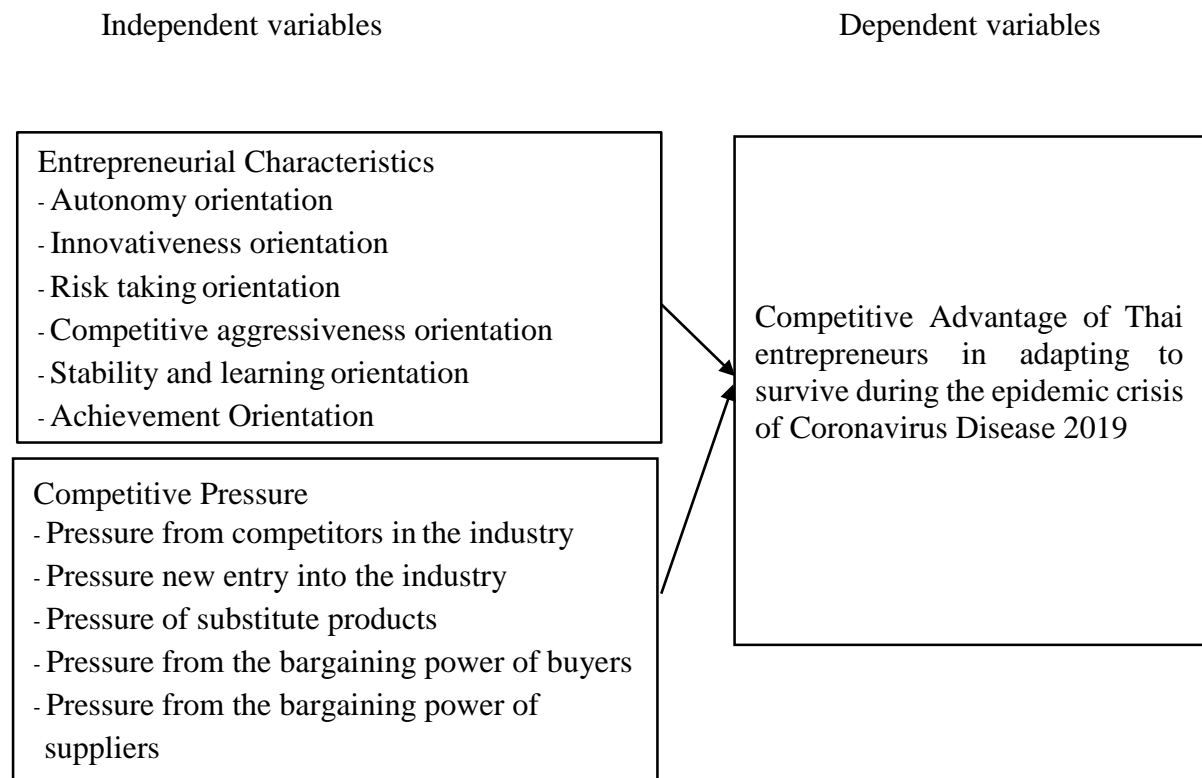
Thai entrepreneurs play a crucial role in Thailand's economic landscape, contributing to the nation's growth and development. Thai entrepreneurs who initiate, organize, and manage businesses in Thailand take on the inherent risks and challenges of starting and running their enterprises.   One significant characteristic of Thai entrepreneurs is their ability to navigate a diverse and dynamic market. Thai entrepreneurs operate in a broad range of industries, from emerging areas such as technology and innovation, characterized by a mix of small and medium-sized enterprises (SMEs) alongside larger corporations. These enterprises demonstrate the resilience and adaptability of Thai entrepreneurs, who often face resource constraints but find innovative ways to thrive in the market. The researcher is interested in traditional business owners; many Thai entrepreneurs are involved in traditional businesses such as agriculture, retail, industry, and hospitality. Family-owned enterprises, passed down through generations, are prevalent. These businesses often reflect Thailand's cultural and familial values, emphasizing stability and continuity.

Certainly, when studying the competitive pressure faced by Thai entrepreneurs, it is essential to impact the COVID-19 pandemic. The COVID-19 situation has significantly impacted the competitive landscape across various industries. The pandemic has introduced new challenges and altered existing dynamics, influencing how businesses compete in several ways, and the COVID-19 situation has impacted competitive pressures in various industries. Changes in consumer behavior during the pandemic have affected the demand for products and services. Businesses that can adapt to these shifts effectively gain a competitive advantage, while those slow to respond may face increased pressure. The pandemic accelerated the need for digital transformation. Companies that embraced technology to enhance their online presence, e-commerce capabilities, and digital services gained a competitive edge. Businesses that lagged in adopting digital strategies faced heightened pressure. Supply chain disruptions in local supply have impacted the availability of raw materials, components, and finished goods. Companies with resilient and adaptable supply have been better positioned to meet customer demands, while others faced challenges and increased competition for limited resources. Changes in market conditions, supply chain costs, and consumer purchasing power have impacted pricing strategies. Companies that adjust their pricing models to remain competitive while maintaining profitability are likelier to thrive. The pandemic has emphasized the importance of innovation and adaptability in business. Businesses that have quickly adapted their products, services, quick responses, and business models to meet evolving customer needs have gained a competitive edge over those slow to innovate.

In this crisis, entrepreneurs should empower their organizations by increasing brand value to prepare for future challenges effectively. Situations are learning opportunities, and organizational changes create value for stakeholders and society while promoting trust from all parties involved. For this reason, the researcher is interested in studying factors affecting the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. To analyze and find corporate strategy guidelines to drive the organization to stay in the COVID-19 era, which is suitable for the context of Thai entrepreneurs in adapting to survive during the epidemic crisis of the coronavirus 2019. As a result, expand the research to entrepreneurs in other countries to continue achieving.

Research Objective

　　　　1. To study the characteristics of Thai entrepreneurs that affect competitive advantage.

　　　　2. To study the factors determining Thai entrepreneurs' competitive advantage in competitive pressure.

　　　　3. To study and find ways to create competitive advantages for Thai entrepreneurs.

Independent variables　　　　　　　　　　　　　Dependent variables

Entrepreneurial Characteristics
- Autonomy orientation
- Innovativeness orientation
- Risk taking orientation
- Competitive aggressiveness orientation
- Stability and learning orientation
- Achievement Orientation

Competitive Pressure
- Pressure from competitors in the industry
- Pressure new entry into the industry
- Pressure of substitute products
- Pressure from the bargaining power of buyers
- Pressure from the bargaining power of suppliers

Competitive Advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of Coronavirus Disease 2019

Figure 1 Factors Affecting the Competitive Advantage of Thai Entrepreneurs

Research Hypothesis

　　　　Hypothesis 1: Entrepreneurial characteristics factors affect the competitive advantage of Thai entrepreneurs in Bangkok.

　　　　Hypothesis 2: Competitive pressure factors affect the competitive advantage of Thai entrepreneurs in Bangkok.

　　　　Entrepreneurial characteristics: Many research studies on entrepreneurial attributes lead to success in business. Entrepreneurial Characteristics refer to personal factors used in business that will encourage and support that person to succeed. Those interested in studying the characteristics of successful entrepreneurs. Freser et al. (2020). The researchers have compiled some exciting findings as follows. 1) Autonomy orientation refers to the ability to lead oneself to opportunities, work independently, and make decisions in coercive situations. 2) Innovativeness orientation means having the initiative to create new product development that does not duplicate the traditional services and use of new technologies in business operations. 3) Risk-taking orientation refers to the courage to undertake an activity under various uncertain conditions that may be equally successful or fail. Those who decide can accept the risk to operate profits. 4) Competitive aggressiveness orientation means a high commitment to various activities with advancing efforts and managing to outperform

competitors in the market to create a competitive advantage. 5) Stability and learning orientation mean having stability, not being shaken by situations or mistakes that occur to oneself, and bringing the defects that occur as good experiences to learn now and in the future. 6) Achievement orientation is a person who looks for ways to succeed or values the path to success, likes challenges and is motivated to do it to be better and successful.

Competitive pressures: it is essential to consider when planning strategies and business competitive advantage in a business environment. The business will not succeed without analyzing the competitive environment, industry, or target market. Porter (1980) proposed that the business environment depends on the competitive environment in the industry in which the business is located. The competitive situation in the industry will rely on five important factors; the crucial characteristics of all factors are as follows: 1) Pressure from competitors in the industry. 2) Pressure of new competitors entering the industry. 3) Substitute pressure. 4) Pressure from the bargaining power of buyers. 5) Pressure from the bargaining power of raw material suppliers. Analysis of these five pressures will help to understand the structure, leading trends, and forces affecting profitability in a targeted industry or market. It helps to know the industry's and competitors' strengths and weaknesses. Visualize industry trends and threats to understand whether the industry is growing or declining.

Competitive advantage refers to an organization's ability to do its business better than others, make profits higher than industry standards, or create more value for the organization than its competitors. Chatriwisit et al. (2010) building stability for the best organization makes competitive advantage the heart of a successful business. Competitive advantage is the superiority of an organization that cannot be imitated. Still, it takes time, innovation, management system within the organization, organization management system image, etc. The most fundamental factor in creating a competitive advantage is the knowledge that the organization must try to build with learning and develop it into an organization of learning. Then, the executives must draw on the personnel's ability to create innovation for the organization. Competitive advantage depends on the organization's excellence in 4 areas: 1) Selling cheaper products is producing at a lower cost advantage. On the cost side, the organization can have products at a lower cost than competitors. Compared to the utility of the product. The price usually occurs when the market is enormous, and the product must be the same standard. One or two low product costs are not enough, but the organization's overall cost for all products must be low. These will lead to more profit from producing products at a lower cost than expected while preventing competitors from lowering prices, customers from switching to cheaper products, and raw materials from sellers to pressure prices because of low costs. 2) The key to competitive advantage is selling quality products and providing better services differently from others, which is a business advantage. It includes product and service quality, product and service development, or product and service innovation. These meet customer satisfaction needs and create a competitive advantage in the long run. 3) Innovation is crucial for gaining and maintaining a competitive edge. It involves more than just introducing new products; it also includes redefining strategies, operations and improving the customer experience. Technological innovation allows companies to stand out in the market, attracting customers, building brand loyalty, and outperforming competitors. 4) Quickly responding to customers faster than competitors is another competitive advantage. Quick decision-making or quick development of new products directly affects the customer. The rapid response demonstrates the flexibility of an organization, even as an organization can change quickly. Immediate response also results in differentiation and cost leadership. Quick response has a positive effect on product development and manufacturing of products according to customer requirements. They were improving existing products, fulfilling customer orders, and

answering customer questions quickly. These advantages allow organizations to set higher prices that are more satisfying to their customers.

Related research Pathumma (2010) has studied business and marketing strategies for competitive advantages in the insurance business. A case study of Muang Thai Insurance Public Company Limited. Due to the unstable political-economic slowdown, the motor insurance industry has a relatively small market share caused by intense competition from existing and new competitors to compete for market share. As a result, consumers change their consumption behavior to reduce their expenses. Including various factors that are weaknesses of the company, it can be summarized as the strategy at the corporate level choosing a growth strategy. Using product development strategies and marketing to increase sales, market share, and expand future growth.

Business-level strategies opt for differentiation strategies to offer products, services, and distribution channels different from competitors, creating a competitive advantage. Pongpaew & Phakasat (2016) have studied the model of competitive abilities of OTOP SME entrepreneurs in Thailand. The study found that the factors that positively influenced competitiveness were 1) intellectual capital, 2) innovation ability, 3) marketing entrepreneurship, and 4) creativity. The statement confirms the competitiveness causal relationship model possibility and accuracy. Jangploy & Jesadalak (2016) have studied strategies for creating competitive advantages in the coffee shop business of small entrepreneurs in Muang District, Ratchaburi Province. The study found that Consumers have behaviors in deciding to use coffee shops by considering the decoration style and atmosphere of the store location. The main point is the quality and taste of the products with good service from employees. Most consumers buy iced coffee and other products depending on their preferences. The specific recipes of each store are different, and the taste must meet consumers' needs. Thanarungcharoenkit et al. (2017) studied the business strategy to create a competitive advantage for Mr. Ice Cream shop in Nakhon Pathom province. The study found that the method used to create a competitive advantage for Mr. Ice Cream Shop's business is the owner of the company. Use product development and differentiation strategies to add value to the brand and create a competitive advantage higher than competitors. The benefits gained from this research are business owners can implement various strategies to improve and develop to achieve more competitive advantages due to the uniqueness of the product, making the business grow and succeed sustainably.

Phetsiri et al. (2017) have studied patterns and strategies to create an advantage in the competition of clothing wholesale businesses in the Bobae market in Bangkok. The study found that 1) Most clothing wholesale businesses in the Bobae market are sole proprietorships. 2) Most entrepreneurs use cost leadership strategies to create competitive advantages. 3) Stability strategies to maintain the size and execution of offering the same products or services in the same market, which analysis of the external competitive environment reveals. The advantages in the business in terms of costs prevent pressures in 5 aspects: 1) current competitors 2) new competitors 3) substitute products 4) bargaining power of buyers and 5) bargaining power of raw material suppliers. Nakkasem & Pasunon (2018) have studied factors affecting the competitive advantage of service business entrepreneurs in Bangkok. The study found that the competitive advantage of service business operators in Bangkok is the aspect of rapid response regarding cost strategy and differentiation; it is an important factor in creating a competitive advantage. In terms of entrepreneurial characteristics, it was found that four variables affected the competitiveness of service entrepreneurs in Bangkok: aggressive competition, autonomy, risk-taking, and innovativeness. Patcharachotsuthi (2018) the study found that competitive advantages include innovation, the difference in cost leadership, quick

response, and focusing on specific business markets that affect the business's competitive advantage. Doulani et al. (2020) found that entrepreneurs have four characteristics: autonomy orientation, risk-taking orientation, competitive aggressiveness orientation, and stability learning orientation affect the competitive advantage. Thurathamnon & Yodwisitsak (2022) found entrepreneurial attributes of self and competitive advantage. Regarding low-cost leadership, strategy and strategy make a difference that positively affects the business's success. Tansiri (2023) found that entrepreneurial characteristics such as innovation, risk-taking, and business self-responsibility affect the competitive advantage of online channels in Kluaynamthai.

Methodology

To study the factors affecting the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. The population used in the study were entrepreneurs in Bangkok. The sample used in this study was a group of Thai entrepreneurs in Bangkok using a convenient sampling method. The researchers use Bangkok because Bangkok is a strategic location and economic hub of Thailand that is good for a supportive business environment and economic advantages. Moreover, studying entrepreneurs from traditional sectors in emerging markets can help find many opportunities in Bangkok. Thai entrepreneurs, especially in Bangkok, have seen growth. Researchers focusing on entrepreneurship, innovation, and business advantage may find Bangkok a compelling location to study the dynamics of emerging businesses. Therefore, the sample size was determined at the confidence level of 95 percent. The research error was no more than percent 5 (Wanitchbuncha, 2006, p.74). This resulted in a sample size of 384 people; therefore, the researcher collected 409 samples using the W.G. Cochran formula obtained by convenient random sampling.

Describe the instruments and equipment used in the experiment and the experimental study methods: population and sample, research method, research instruments, data collection, and data analysis.

Content Scope derived from searching for ideas, theories, and related research in the following areas: 1) Entrepreneurial characteristics such as Autonomy orientation, Innovativeness orientation, Risk-taking orientation, Competitive aggressiveness orientation, stability & learning orientation, and Achievement Orientation. 2) Competitive pressure such as pressure from competitors in the industry, The pressure of new competitors entering the industry, Substitute pressure, pressure from the bargaining power of buyers, and pressure from the bargaining power of raw material suppliers. 3) Competitive advantages include cost, quality, innovation, and quick response.

The research tool uses a questionnaire on the factors affecting the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. The questionnaire consists of questions divided into six parts as follows: Part 1 is the respondent's gender, age, education level, position, income, and status. Part 2 is a question on business information and international business activities of entrepreneurs, including forms of business registration, length of business, average annual income in business per year, business style and size of business. Part 3 is a question on the entrepreneur's characteristics that affect the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019, such as autonomy, innovativeness, risk-taking, competitive aggressiveness orientation, stability & learning orientation, and achievement. Part 4 is a question on competitive pressure such as pressure

from competitors in the industry, pressure of new entry into the industry, pressure of substitute products, pressure from bargaining power of buyers and pressure from bargaining power of suppliers. Part 5 questions creating competitive advantages for entrepreneurs such as cost advantages, quality, innovation, and quick response. Part 6 comments and suggestions.

Table 1 Show result IOC & Cronbach Alpha

Question	Items	(5) IOC	(30 samples) Cronbach Alpha
1. Entrepreneur's characteristics	26		
1.1 Autonomy	5	0.84	1.00
1.2 Innovativeness	4	0.80	1.00
1.3 Risk-taking	5	0.92	1.00
1.4 Competitive aggressiveness	4	0.80	1.00
1.5 Stability & learning	3	0.60	1.00
1.6 Achievement	5	1.00	1.00
2. Competitive pressure	15		
2.1 Competitors in the industry	3	0.60	1.00
2.2 New entry into the industry	3	0.56	1.00
2.3 Substitute products	3	0.60	1.00
2.4 Bargaining power of buyers	3	0.56	1.00
2.5 Bargaining power of suppliers	3	0.60	1.00
3. Competitive advantages	12		
3.1 Cost advantages	3	0.60	1.00
3.2 Quality	3	0.60	1.00
3.3 Innovation	3	0.60	1.00
3.4 Quick response	3	0.60	1.00

Results

The study concluded that the majority of 1 and 2 answered the questionnaire.

Table 2 Show result on General Information

Part 1. General Information	Samples	Percent
1. Sex		
Females	264	64.50
Male	145	35.50
2. Age		
36-45 years	203	49.60
36-55 years	82	20.00
3. Education level		
Postgraduate degree	174	42.50
Bachelors degree	152	37.20
4. Positions		
Business owner	169	41.30
Others	82	20.00
5. Income		
30,001 - 45,000	132	32.30
60,001 - More	123	30.10
6. Status		
Single	171	41.80
Married	166	40.60

Table 3 Show results on Business Information

Part 2. Business Information	Samples	Percent
1. Business Registration		
Limited companies	170	41.60
Individual business	156	38.10
2. Operate Business		
More than 10 years	150	36.70
2-4 years	113	27.60
3. Average annual income		
Less than or equal to 5 M	204	49.90
More than 25 M	108	26.40
4. Investment style		
Direct own business	230	56.30
Own business with partners	92	22.50
5. Size of Business		
Small business	211	51.60
Other business	92	22.50

Table 4 Show results on Entrepreneurs Characteristics

Part 3. Entrepreneurs Characteristics	Mean	S.D.	Result
1. Autonomy			
Freedom to own decision	4.13	0.89	High
Own decide to solve problems and face various situations by yourself	4.07	0.84	High
2. Innovation			
New knowledge of technologies can improve business	4.28	0.74	Very High
Progressive thinking improves business in a modern way	4.26	0.83	Very High
3. Risk-taking			
Trade and investment always had the most risks	4.33	0.85	Very High
Believe in success owner need to face risks on business	4.06	0.96	High
4. Competitive aggressiveness			
Your effort to running a business can achieve the most competitive advantage	4.06	0.81	High
To manage the business to have lower costs than competitors can create a competitive advantage	4.02	0.87	High
5. Stability & learning			
Mistakes in the past it's good learned as learning experiences	4.35	0.76	Very High
Own research and study always additional knowledge	4.15	0.82	High
6. Achievement			
Bring your failure to study as successful in the future	4.38	0.73	Very High
Own determined, patient and indomitable to face problems	4.23	0.79	Very high

Table 5 Show results on Competitive Pressure

Part 4. Competitive Pressure	Mean	S.D.	Result
1. Pressure from competitors in the industry			
Products and services were different and unique more important	4.03	0.86	High
The proportion of market share has grown steadily compared to competitors in the market	3.94	0.89	High
2. Pressure of new entry into the industry			
Own product was accepted and had a widely known from customer which new competitors are difficulty to reach	3.84	0.87	High
Management makes low costs until it is difficult for new competitors	3.81	0.93	High
3. Pressure of substitute products			
You could adjust own strategies in finding ways to produce new products to meet the needs of consumers	3.98	0.89	High
You have improved the quality of products and services that are superior to substitute products in the market	3.96	0.80	High
4. Pressure on the bargaining power of buyers			
Respondents saw own customers can contact and receive product information as quickly as possible	4.14	0.85	High
Own customers cannot find other products to replace because products are different	3.79	0.97	High
5. Pressure from bargaining power of suppliers			
Own industry could find other raw materials to replace	3.97	0.89	High
Own quality raw materials that can be used in many productions	3.94	0.88	High

Table 6 Show results on Competitive Advantage

Part 5. Competitive Advantage	Mean	S.D.	Result
1. Cost advantage			
Limited resources to maximize benefit and reduce loss as much as possible	4.22	0.83	Very High
Quality and modern machinery cause minimal damage to the production process	4.12	0.89	High
2. Quality			
Creating quality products and services that matched the needs of customers	4.19	0.83	High
System standard and process quality inspection to produce noticeably better quality products	4.12	0.81	High
3. Innovation			
Product created new services and methods of production to obtain the highest quality products	4.14	0.85	High
New process management to be able to produce products and services more efficiently	4.11	0.89	High
4. Speed			
The fastest and safest delivery of goods	4.30	0.85	Very High
Quickly change the quality of the product to meet the needs of customers	4.22	0.84	Very High

Table 7 Show result on Factors Affecting the Competitive Advantage of Thai Entrepreneurs

Factors Affecting the Competitive Advantage of Thai Entrepreneurs	Important level			
	Mean	S.D.	Meaning	Result
Entrepreneurs Characteristics				Accepted
1. Autonomy	4.06	0.68	High	
2. Innovation	4.22	0.68	Very High	
3. Risk-taking	3.98	0.77	High	
4. Competitive aggressiveness	3.94	0.68	High	
5. Stability & Learning	4.15	0.68	High	
6. Achievement	4.21	0.61	Very High	
Competitive Pressure				Accepted
1. Pressure from competitor in the industry	3.81	0.73	High	
2. Pressure of new entry into the industry	3.82	0.78	High	
3. Pressure of substitute products	3.88	0.72	High	
4. Pressure on the bargaining power of buyers	3.88	0.72	High	
5. Pressure from bargaining power of suppliers	3.95	0.71	High	
Competitive Advantage				Accepted
1. Cost advantage	4.10	0.72	High	
2. Quality	4.13	0.68	High	
3. Innovation	4.07	0.77	High	
4. Speed	4.22	0.72	Very High	

Table 8 Show result on multiple regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	**Std. Error**	**Beta**		
Constant	1.061	0.130		8.171	0.000
Pressure from competitors in the industry	0.331	0.049	0.374	6.707	0.000
Pressure of new entry into the industry	-0.004	0.048	-0.004	-0.079	0.937
Pressure of substitute products	0.150	0.056	0.166	2.703	0.007
Pressure on the bargaining power of buyers	0.091	0.049	0.101	1.877	0.061
Pressure from bargaining power of suppliers	0.212	0.042	0.233	5.094	0.000

The objective results can be summarized as follows. 1) Overall opinion of entrepreneurs' characteristics in autonomy on their own decide with freedom by themselves and to solve problems and face various situations by themselves at a high agreeing level. Most respondents had an opinion of innovation; it was found that respondents saw that new knowledge of technologies can improve business and progressive thinking can enhance business in a modern way. For risk-taking when considered, trade and investment always had the most risks and believed in success, the owner needs to face risks in business. Also, in opinions on competitive aggressiveness, it was found that your own effort to run a business can achieve the most competitive advantage and manage the business to have lower costs than competitors can create a competitive advantage. The respondents had opinions on stability and learning. When considered, it was found that mistake in the past was good learned as learning experiences with own research and study always added knowledge to the entrepreneurs. Opinion on achievement when considered, it was found that failure to study as successful in the future and determined, patient and indomitable to face problems are most important for success. 2) Overall opinion on competitive pressure at a high agreeing level. When considered the competitive pressure from competitors in the industry, it was found that the respondents saw the products and services were different and unique more important than competitors in the same market. The proportion of market share grown steadily compared to competitors in the market can make an advantage over competitors. The pressure of new entry into the industry, when considered, it was found that the respondents saw own product was accepted and had a widely known from the customer which new competitors are difficult to reach is the most important followed by the management makes low costs until it is difficult for new competitors to compete with business are key success to slow new entry into the industry. Most respondents had an opinion on the overall competitive pressure of substitute products at a high level. When considered, it was found that the respondents saw that you could adjust your own strategies in finding ways to produce new products to meet the needs of consumers the most important followed by you have to improve the quality of products and services that are superior to substitute products in the market. Overall opinion on the competitive pressure on the bargaining power of buyers at a high level. When considered, it was found that customers can contact and receive product information as quickly as possible, which is the most

important. Own customers cannot find other products to replace because they are different and it is difficult for consumers to buy products from other places. Most respondents expressed their opinions on the competitive pressure from bargaining power of suppliers at a high level. When considered, the respondents found that their own industry could find other raw materials to replace for a cheaper price or during shortage of material supply is most important followed by that own quality raw materials that can be used in many productions can make business more advantage. 3) Overall feedback on the competitive advantage of entrepreneurs at a high level. When considering cost advantage, the respondents found that using limited resources to maximize benefits and reduce loss as much as possible is the most important, followed by quality and modern machinery causing minimal damage to production, which can help businesses have more advantage. Also, respondents had opinions on the quality when considered, it was found that the respondents saw creating quality products and services that matched customers' needs as the most important, followed by system standard and process quality inspection to produce noticeably better quality products that can make advantage to business. The overall competitive advantage on innovation, when considered, it was found that the respondents saw product created and new services methods of production to obtain the highest quality products as the most important, followed by new process management to be able to produce products and services more efficiently can take advantage to the business. Most of the respondents had opinions on the overall in terms of speed. When considered, it was found that respondents viewed the fastest and safest delivery of goods as the most important for competitive advantage, followed by being able to quickly change the product's quality to meet customers' needs, which can make business more advantageous over competitors.

The result from multiple regression analysis shows that competitive pressure affects the competitive advantage of Thai entrepreneurs, with pressure from competitors in the industry getting the result of 0.000, pressure of substitute products getting the result of 0.007, and pressure from bargaining power of suppliers getting result of 0.000 which all result less than the statistical significance of 0.05, it consistent with the hypothesis determine Thai entrepreneurs affecting the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. Meanwhile, pressure of new entry into the industry getting the result 0.937, and pressure on the bargaining power of buyers getting the result of 0.061, which two results with more than the statistical significance of 0.05, those two factors will not affect Thai entrepreneurs; with the result forecast statistic (R square) equal to 0.594. These results affect Thai entrepreneurs' competitive advantage in adapting to survive during the epidemic crisis of coronavirus disease 2019.

From the research, the results are consistent with the two assumptions that are H1) Characteristics of Thai entrepreneurs that affect competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. H2) Factors determine the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019.

Discussions

The discussion on position of respondents differed between business owners and employees. Responsibility and Perspective Business Owners: They often have a broader view of the company's overall strategy, financial health, and long-term goals. Their responses may be influenced by the need to ensure the company's success and sustainability. Business Owners may be more willing to take calculated risks to drive growth or navigate challenges. Their responses might reflect a higher tolerance for risk and a focus on long-term outcomes. Business motivations often relate to financial success, company growth, and achieving strategic goals driven by a desire to maximize profits and create a sustainable business because business owners can access a broader range of information about the company's overall performance, industry trends, and market conditions. Businesses can respond with a more comprehensive understanding of the business landscape. Business owners may communicate with a focus on the overall vision, company goals, and strategic direction. Their responses might reflect the language of leadership and business strategy. Employees' perspectives might focus more on their roles, daily tasks, and immediate concerns. Employees' responses reflect their individual experiences within the company. A desire for job security and stability might influence employees' responses. They might be more risk-averse and concerned about short-term challenges. Motivations may include job satisfaction, work-life balance, and career development. Personal job-related experiences and aspirations might shape their responses. Access to information may be more limited to their specific roles or departments. Their responses might be based on a narrower set of information and experiences. Employees may communicate, focusing on their day-to-day tasks, team dynamics, and personal experiences. Their responses might reflect individual contributors within the organization.

Respondents give some similarities and differences in the industry in that businesses face unique challenges and opportunities. A technology company might prioritize innovation and adaptability, while a manufacturing company may focus more on operational efficiency and supply chain management. Small, medium-sized, and large corporations may have different priorities and resources. Smaller businesses emphasize agility and personal customer relationships, while larger enterprises focus on scalability and global expansion. Businesses operating in various markets respond differently based on local or international economic conditions, regulatory environments, and consumer behaviors. The level of competition and market saturation can influence responses. The way a business generates revenue can impact its responses. A subscription-based service prioritizes customer retention, while a retail business focuses on attracting new customers through marketing and promotions. Whether a business is privately owned, publicly traded, or a cooperative can influence decision-making. Private businesses have more flexibility in their strategies, while public companies are more accountable to shareholder expectations. A business's values, mission, and culture play a significant role in shaping responses. A company with a culture of innovation approaches challenges differently than one focusing on stability and tradition. Businesses at different stages of technological adoption may respond differently to emerging trends or disruptions. Technology companies embrace digital transformation more readily than those with traditional business models. Other industries may have varying regulatory requirements. Businesses operating in highly regulated industries, such as finance, may have more compliance-related considerations in their responses. Understanding these factors is crucial for assessing the uniqueness of each business and its strategies in their specific context. It also highlights the

importance of adaptability in a dynamic business environment where different types of businesses may face distinct challenges and opportunities.

The factors affecting Thai entrepreneurs' characteristics on competitive advantage are mentioned in all aspects, such as autonomy, innovation, risk- taking, competitive aggressiveness, stability & learning, and achievement. It can affect a business's competitive advantage. Autonomy allows for quicker decision-making and greater flexibility. Individuals can respond more efficiently to market changes and customer needs, leading to a competitive edge. Innovation refers to innovating products, services, or processes that give a business a distinct advantage. Being the first to market with a new and valuable offering can attract customers and create a strong in market position. Risk- taking gives businesses an advantage in calculated risks, leading to breakthroughs and opportunities that competitors may miss. It allows a business to stay ahead of the curve and adapt to changing market conditions.

Moreover, competitive aggressiveness involves actively seeking ways to outperform competitors. This can affect strategic pricing, marketing, and other initiatives to gain a larger market share or position the business as an industry leader. Stability & learning are crucial for maintaining operations; achievement fosters employee growth and development to gain customer trust. While too much stability may lead to complacency, an appropriate level ensures reliability and consistency to attract customers. Achievement of business advantage is a multifaceted endeavor that involves a combination of internal and external factors. Businesses that foster innovation, prioritize customer needs, optimize operations, and adapt to changing market dynamics are better positioned for long- term success. The interplay of these factors requires ongoing strategic management and a commitment to continuous improvement to sustain a competitive advantage in today's dynamic business environment.

In addition, this research is in line with the study of other research in which the characteristics of Thai entrepreneurs that affect competitive advantage have an important impact as follows. The hypothesis test results revealed autonomy, innovation, risk-taking, competitive aggressiveness, stability & learning, and achievement. When considering each aspect, it was found that all aspects were at a high level. This may be because related to the research result of Doulani et al. (2020), it was found that characteristics of entrepreneurship focus on three characteristics: autonomy, risk-taking, and competitive aggressiveness which affect competitive advantage. It is also related to Phimonrattanakan &Jesadalak's research (2019). Inthanam (2020) found that innovation and risk-taking affect competitive advantages for entrepreneurs with a positive correlation with business success. Related to the research of Kaenchanda (2022). It was found that entrepreneurial focus on stability and learning resulted in organizational having direct and indirect effects on competitive advantage. The research of Inthanam (2020). Thurathamnon and Yodwisitsak (2022) found that entrepreneurs with risk-taking, stability & learning, and achievement have a positive effect on business success. The research results can be used as a guideline for planning and management development to create competitive advantages for future businesses.

The factors determining Thai entrepreneurs' competitive advantage in competitive pressure. As mentioned in all aspects which are pressure from competitors in the industry, pressure from new entry into the industry, pressure from substitute products, pressure from bargaining power of buyers and pressure from bargaining power of suppliers. When considered, it can affect a business's competitive advantage. The pressure from competitors in the industry it was found that the products and services were different and unique more important than competitors in the same market, followed by the proportion of market share grew steadily compared to competitors in the market. The pressure from new entry into the industry, when considered it was found that own product was accepted and had a widely known

from a customer which new competitors are difficulty to reach, followed by the management makes low costs until it is difficult for new competitors to follow is one of method for business advantage. The pressure from substitute products, when considered it was found that you could adjust your own strategies in finding ways to produce new products to meet the needs of consumers is the most important followed by you have improved the quality of products and services that are superior to substitute products in the market. The pressure on the bargaining power of buyers when considered, it was found that own customers can contact and receive product information as quickly as possible, which is the most important, followed by own customers cannot find other products to replace because products are different moreover it is difficult for consumers to buy from other places. The pressure from the bargaining power of suppliers, when considered by industry, could find other raw materials to replace, followed by own quality raw materials that can be used in many productions, which can make a business advantage.

In addition, this research is in line with the study of other research in which the factors determined in competitive pressure affect competitive advantage and have an impact as follows. Factors determine the competitive advantage of Thai entrepreneurs. The hypothesis test results revealed the factors of pressure from competitors in the industry, pressure from substitute products and pressure from bargaining power of suppliers. It determines the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. As for the pressure from new entry into the industry and pressure from the bargaining power of buyers, it does not determine the competitive advantage of Thai entrepreneurs in adapting to survive during the crisis of the coronavirus infection 2019, which is related to the research of Petchsiri et al. (2017). They were studying patterns and strategies to create an advantage in the competition of clothing wholesale businesses in the Bobae market in Bangkok. The study found that maintaining the size and offering the same goods or services in the same market directly affects competitive advantage, revealing the cost advantage of the business that is involved in 5 pressure. This is also related to Desfiandi et al.'s research (2017). Rakanita (2019). Chong & Ali (2022) found that 5 pressures can push entrepreneurs to adapt to create a competitive advantage to survive in business. It is related to Piyadumrongkul's research (2023). Worapongpat (2023). Boontumjarern & Jarernsiripornkul (2023) found three factors of pressure affecting the adaptation of entrepreneurs: pressure from competitors in the industry, pressure of substitute products and pressure from bargaining power of suppliers. It determines the adaptation for entrepreneurs to create a competitive advantage in business. On the other hand, two factors do not determine the competitive advantage of entrepreneurs: the pressure of new entry into the industry and pressure from bargaining power of buyers. The results show that the pressures affecting the adaptation to create a competitive advantage for entrepreneurs can help businesses improve and develop competitive advantages for future survival.

The study results to find ways to create a competitive advantage for Thai entrepreneurs. Thai entrepreneurs face both challenges and opportunities, it is essential for Thai entrepreneurs to develop and leverage competitive advantages. This guide various strategies and approaches that Thai entrepreneurs can adopt to gain a competitive advantage. Thai entrepreneurs can adapt technology and innovation to building strong networks and focusing on sustainable which robust foundation for success. Thai entrepreneurs should invest in technologies such as artificial intelligence, data analytics, and automation, to enhance operational efficiency and provide innovative solutions. The integration of technology not only improves productivity but also positions businesses as forward-thinking and adaptable. Thai entrepreneurs can foster a culture of innovation within organizations by encouraging creativity, investing in research

and development, and collaborating with academic institutions. This lead to the development of unique products and services which setting entrepreneurs to success in the market. Networking is another factor for business success, and Thai entrepreneurs can benefit from establishing strong connections within the business communities. Thai entrepreneurs can leverage various networking opportunities to gain insights, collaborations, and access valuable resources.

In addition, this research aligns with other researchers' studies to find ways to create a competitive advantage for Thai entrepreneurs. Inthanam (2020) found that innovation creates competitive advantages for entrepreneurs with a positive correlation with business success. Chatriwisit et al. (2010), building stability for the best organization makes competitive advantage the heart of a successful business. Competitive advantage from innovation is the superiority of an organization that cannot be imitated. The collaboration for business networks between individuals, groups, and similar companies. Usually, business networking is the process of fostering cooperation between groups of related businesses and institutions to carry out activities together with a reciprocal agreement to have each other's support, to exchange ideas and information, to associate and complement each other's businesses comprehensively, and to use the business network as a tool (Girish et al., 2022). This is to accomplish shared objectives and consistently generate competitive advantages for entrepreneurs. (Hung & Khoa, 2022), technology can be utilized to gather information and enhance business performance. It also involves the utilization of advanced manufacturing facilities and quality technological resources to help businesses become skilled in technology, which can provide advantages for future work improvement and business success.

Conclusion and suggestions

The result of the study can be applied to factors affecting the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. The researcher found six factors: autonomy, innovativeness, risk-taking, competitive aggressiveness, stability & learning, and achievement. These affect the competitive advantage of Thai entrepreneurs in adapting to survive. These factors determine the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. Three factors affect Thai entrepreneurs' competitive advantage: pressure from competitors in the industry, pressure of substitute products, and pressure from bargaining power of suppliers. It determines the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. All nine factors positively affect competitive advantages in terms of cost, quality, innovation, and speed of reply in customer service. The researcher has suggestions for the next research study as follows. 1) To gain in-depth results on the factors that determine the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. The researcher would collect data in other forms such as in-depth interviews and focus group interviews should be used. 2) Study other factors that may determine Thai entrepreneurs' competitive advantage in adapting to survive during the epidemic crisis of coronavirus disease 2019 in the future.

New knowledge and the effects on society and communities

The results of the study can be applied to factors affecting the competitive advantage of Thai entrepreneurs in adapting to survive during the epidemic crisis of coronavirus disease 2019. A competitive advantage in innovation enables entrepreneurs to develop cutting-edge technology, products and services, enhancing the quality of life for Thai communities. With entrepreneurs, competitive advantage can lead to increased job opportunities and a reduced unemployment rate. Entrepreneurs may invest in training the workforce to ensure worker skills needed to maintain advantage, which can lead to a more skilled and capable workforce. Entrepreneurs are known for risk-taking and having the resilience to overcome challenges. This willingness to take risks can lead to discovering unique opportunities and market niches that competitors might avoid. By effectively managing these risks, entrepreneurs can create a competitive edge that sets them apart. Society benefits as new ventures create jobs, stimulate economic growth, and foster a culture of innovation. Many entrepreneurs today recognize the importance of incorporating social and environmental responsibility into self-business models. These sustainability and ethical practices can set them apart from competitors and attract socially-conscious consumers.   By addressing societal and environmental challenges, entrepreneurs contribute to society's overall well-being and promote positive change within their communities.

The competitive advantage of entrepreneurs compared to Bangkok to other provinces. It's important to mention that the competitive advantage of entrepreneurs in a specific location, such as Bangkok, compared to other provinces in Thailand, involves various factors and can be influenced by regional and individual factors.   Some factors affect the competitive advantage of entrepreneurs in Bangkok compared to other provinces. Infrastructure and connectivity Bangkok, as the capital city, often has better infrastructure and connectivity than some provinces.   This includes transportation, communication networks, and access to international markets. In terms of resources, entrepreneurs in Bangkok can have better access to financial institutions, venture capital, and other resources concentrated in urban centers. Bangkok tends to attract a larger pool of skilled and educated professionals for the skilled workforce. Entrepreneurs in the city have better access to a diverse and specialized workforce. In terms of market size and diversity, the size and diversity of the market in Bangkok can offer more opportunities for entrepreneurs. Finding a niche or scaling a business is more accessible due to the larger customer base. Networking Opportunities, being the business hub, Bangkok provides entrepreneurs with networking opportunities. There are often more business events, conferences, and industry gatherings that facilitate networking and collaboration. Government support policies, initiatives, and policies may favor businesses in certain regions. Entrepreneurs in Bangkok can benefit from specific programs or incentives that are more readily available in urban centers. Research institutions Bangkok will likely have more research institutions and innovation hubs, providing entrepreneurs with better access to research and development resources. Some provinces offer lower operating costs of living and doing business, which can be advantageous for entrepreneurs, especially those in industries where physical location is not critical. Local expertise entrepreneurs in certain provinces can access unique local expertise, resources, or markets specific to that area.   In smaller communities, entrepreneurs benefit from community support and a closer relationship with local customers.

The competitive advantage of entrepreneurs in Bangkok versus other provinces is multifaceted and depends on the specific industry, business model, and individual preferences. It's essential to consider a combination of factors when evaluating the business environment in different regions of Thailand. The competitive advantage of entrepreneurs in Bangkok compared to other provinces is shaped by a complex interplay of factors. While Bangkok offers advantages such as superior infrastructure, access to resources, and a diverse market, entrepreneurs in other provinces may find strengths in lower operating costs, local expertise, community support, and potentially more favorable quality of life. Ultimately, the choice of location for entrepreneurship depends on the nature of the business, the industry, and the preferences of the entrepreneur. Bangkok's cosmopolitan environment and urban advantages may suit certain enterprises, but the unique characteristics of each province also present distinct opportunities. Successful entrepreneurs carefully weigh these factors and align their business strategies with the specific advantages of the chosen location.

In conclusion, entrepreneurial characteristics and pressure can lead to competitive advantages that positively impact society and the community by driving economic growth, technological advancement, and social progress. Entrepreneurs play a vital role in shaping a better future in society and communities. Competitive pressure encourages entrepreneurs to continually seek new and better ways of doing things. When different entities compete to provide superior products, services, and solutions, it often leads to developing innovative technologies, processes, and ideas that can benefit society and communities.

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15

The Operation Model Development for Medical Cannabis Using of Public Hospitals in Sukhothai Province, Thailand

Teeraya Vorapani[*], Pongpol Vorapani and Jitanuwat Phummuang

Sukhothai Provincial Public Health Office, Mueang, Sukhothai Province, Thailand
E-mail: freshy_jaa@yahoo.com*, pongpol65@hotmail.com and jitanuwat1996@gmail.com
*Corresponding author

Abstract

This research aims to develop operation model for medical cannabis using of public hospitals in Sukhothai Province, Thailand that was divided into 3 phases. Phase 1 was a study of situations and problem finding in the operation of medical marijuana use in Public Hospitals in Sukhothai Province. Phase 2 is the development of a model for operating the medical cannabis use by in-depth interviews with hospital directors and medical marijuana operators. Phase 3 is a follow up on the results of the development of an operating model for medical marijuana use. Data was collected for a period of 6 months. The developing an operating model for the use of medical marijuana are 5 main dimension components, consisting of Policy, Management, Integration, Monitoring and Evaluation, Technology. The results was found that personnel providing services in the medical marijuana clinics include a variety of professions, such as doctors, dentists, pharmacists, Thai Traditional Medicine officers and nurses with the number of personnel attending training to serve more patients who come to receive services in medical marijuana clinics both Western Medicine and Thai Traditional Medicine tend to increase every year. The top 5 diseases include : Insomnia, Cancer, Muscular Tendon diseases, Neuropathic pain, Psoriasis that used in the treatment of Thai Traditional Medicine to treat symptoms and diseases, consisting of Ya Suk Sai yad 500 mg./cap., Ya Tum Lai Pra Sumen 2 g./pack, 5 Hemp oil topical, Ya Kae Lom Kae Sen 500 mg. In addition, Western Medicine is used to treat patients, consisting of THC : CBD/ 1:1, 7% THC. However, patients had side effects, consisting of : dizziness, ALT and AST increase, nausea and vomiting, sleepy, anxious, eGFR decreases, feel dry, heart palpitation. Therefore the development of operations is systematic and efficient. Including patients receiving a combination of Thai Traditional Medicine and Western Medicine that work together as a multidisciplinary team to use cannabis as an alternative treatment for patients. Taking into account efficiency and safety together and continued monitoring of symptoms and side effects in the treatment of patients at the hospital and at the patient's home.

Keywords: Medical cannabis extract, Thai traditional medicine, Side effects, Model

Introduction

Cannabis is a plant in the Cannabis family. The scientific name is *Cannabis sativa* L. (Chokevivat , 2019). It has been used as a food and used in Thai Traditional Medicine and Western Medicine for a long time. The cannabinoids are an active and non-psychotropic active substance that found in female inflorescences. It works by binding to the CB1 receptor and CB2 receptor, reducing nausea and vomiting. Stimulate appetite, reduce pain. Non-psychotropic substances do not bind to the CB1receptor, but have pain-relieving effects. Anti-inflammatory, anti-seizure, reduce spasticity, etc. (Im-iam et al., 2019 ; Petrakard, 2016 ; Chokevivat, 2019; Srisubat & Thanasittichai, 2019 ; Sawatphet, 2017) However, Cannabis is used so widely that it is a chemically synthesized drug. This allowed marijuana to be regulated under the Single Convention on Narcotic Drugs,1961 (United Nation, 1979) which Thailand has participated in this convention. In which Thailand has enacted the Narcotic Law of 1979, according to Section 7, stipulating that narcotics are divided into 5 types, of which Cannabis is a category 5 drug. (Narcotic Act, 1979) However, cannabis has been used medicinally for more than 5,000 years as evidenced by different countries. Including in Thailand, the use of marijuana in the treatment of diseases has been recorded in many pharmacopoeia each Phra Narai scriptures, scriptures of Thai Traditional Medicine, textbook of medicinal stone inscriptions in Wat Phra Chetuphon Wimonmangkalaram (Wat Pho), textbook of medical welfare, old medical textbook. (Sripanidkulchai, 2019)

At present, many countries have focused on the use of marijuana for medical purposes. Therefore, Thailand has a policy on the use of marijuana for research and medicine. Therefore, the Narcotics Act (No.7) B.E. 2562 was announced in the Royal Gazette on February 18, 2019. This is an amnesty for marijuana possession, use for research. Between 19 February – 19 May 2019. In addition the government has encouraged the use of marijuana for medical purposes. The Ministry of Public Health has recommended that cannabis, both modern medicinal forms with dominant THC extracts, dominant CBD extracts, THC: CBD extracts and 16 Thai Traditional Medicine formulas be utilized for medical purposes in treating diseases or symptoms. Including nausea and vomiting caused by chemotherapy that standard treatment is ineffective, Intractable epilepsy and drug-resistance epilepsy, spasticity in patients with multiple sclerosis Nerve pain where other treatments have failed, Parkinson's disease, Alzheimer's disease, multiple sclerosis, anxiety disorders, patients requiring palliative care, terminal cancer patients. (Im-iam et al., 2019) including the Ministry of Public Health has an order for the hospital to establish a Medical Cannabis Clinic. At first, Sukhothai Province opened two clinics to provide services and give advice on the use of medical marijuana which has used cannabis in the form of modern medicine and Thai Traditional Medicine formulas to treat patients. Another 7 community hospitals operate as medical marijuana counseling clinics. Although the past performance is in accordance with the indicators of the Ministry of Public Health. But access to medical marijuana services is small. Including in order to operate efficiently. Therefore, the researcher is interested in developing an operation model for medical cannabis extract using public hospitals in Sukhothai Province, Thailand in order to operate systematically efficient including patients receiving a combination of Thai Traditional Medicine and Modern Medicine as well.

Objective

To develop operation model for medical cannabis using of public hospitals in Sukhothai Province, Thailand.

Methodology

This research was divided into 3 phases. Phase 1 was a study of situations and problem finding in the operation of medical marijuana use in public hospital in Sukhothai Province. Phase 2 is the development of a model for operating the medical cannabis use of government hospitals in Sukhothai Province. Using medical marijuana from public hospitals in Sukhothai by in-depth interviews with hospital directors and medical marijuana operators of government hospitals in Sukhothai Province. Phase 3 is a follow up on the results of the development of an operating model for medical marijuana use in government hospitals in Sukhothai Province. Data was collected for a period of 6 months from 6 October 1, 2019 to April 30, 2023.

Population and Sample

9 Director of the hospital and 36 operator of medical marijuana use at public hospitals in Sukhothai Province as well as patients who come to receive services in medical marijuana use clinics of government hospitals in Sukhothai Province.

Research Tools

In-depth interviews form for hospital directors and medical marijuana operators and group discussion questions for medical marijuana operators of public hospitals in Sukhothai Province and information record form for medical marijuana use clinics of public hospitals in Sukhothai Province.

Data Collection

The data collection before trying the new format for 2 periods, October 2019 – September 2020 and after trying out the new format from October 2020 – September 2021 and October 2021 – September 2022 and October 2022 – April 2023 with an in-depth interview form for hospital directors and medical marijuana operators and group discussion questions for medical marijuana operators and a recording of medical marijuana use results of public hospitals in Sukhothai Province.

Data Analysis

Content analysis for In-depth interviews form for hospital directors and medical marijuana operators and group discussion questions for medical marijuana operators and descriptive statistics were used for numbers and percentages.

Results

When analyzing the problems in the medical marijuana use operation of public hospitals in Sukhothai Province, it is found that as for context, in year 2019, promoting the use of medical marijuana as an alternative treatment for patients in public hospitals was a new policy. In addition, marijuana is a category 5 drug under the Narcotics Act of 1979 make a plan setting a vision including the operational goals must be carefully and appropriately implemented by jointly planning as a team. As for input, it was found that there was a shortage of personnel with knowledge of using medical marijuana as an alternative treatment for patients in government hospitals. As well as a shortage of equipment including the lack of budget for the establishment of medical marijuana clinics to treat patients in public hospitals. As part of the process, it was found that the lack of guidelines and formalities for the implementation of medical marijuana use in public hospitals. As well as monitoring performance results, supervising, as well as reporting and reflecting performance results without clear guidelines

and records. Therefore, a model for operating medical marijuana use of public hospitals in Sukhothai Province has been developed. There are 5 main components as follow :

1. Policy Dimension

Executives determine strategic plans, directions for short-term and long term goals in the operation of medical marijuana use as well as communicating the policy into practice. Including crating a team to analyze problems systematically and exchange knowledge to develop processes and work together.

2. Management Dimension

Management consists of 4 main elements : personnel, budget, objects and processes which people management should start with having complete and accurate information with using technology and continuously develop the potential of personnel. Including having a mentoring team and a model area to learn. In terms of budget and material, there will be sufficient support when it is driven by the management. The items will include preparing tools. Various forms and guidelines to use in working. In addition, when there are personnel, budgets, materials that it will lead to the development of processes to suit the work according to the context of each area.

3. Integration Dimension

There is a collaboration with network partners from both the public and private sectors such as Provincial Administrative Organization, Sub-district Administrative Organization, Municipality, School, Temple, Public and Private hospitals, Store, Community leader, Village Health Volunteer by driving in the form of committees at the provincial, district, sub-district, and community levels in analyzing problems and finding joint solutions to suit the context of the area.

4. Monitoring and Evaluation Dimension

It is continuously monitored and accessed using various databases and use technology to report results and reflects in real time. Including having a team of mentors at the provincial level and at the district level to follow up the operation and provide continuous consultation. In addition to find solutions together continuously. Including rewards as incentives for role models and role models to work that other areas can continue to learn.

5. Technology Dimension

Technology is used to create a database of personnel, resources, budgets and materials as well as using multiple channels to communicate and receive complaints.
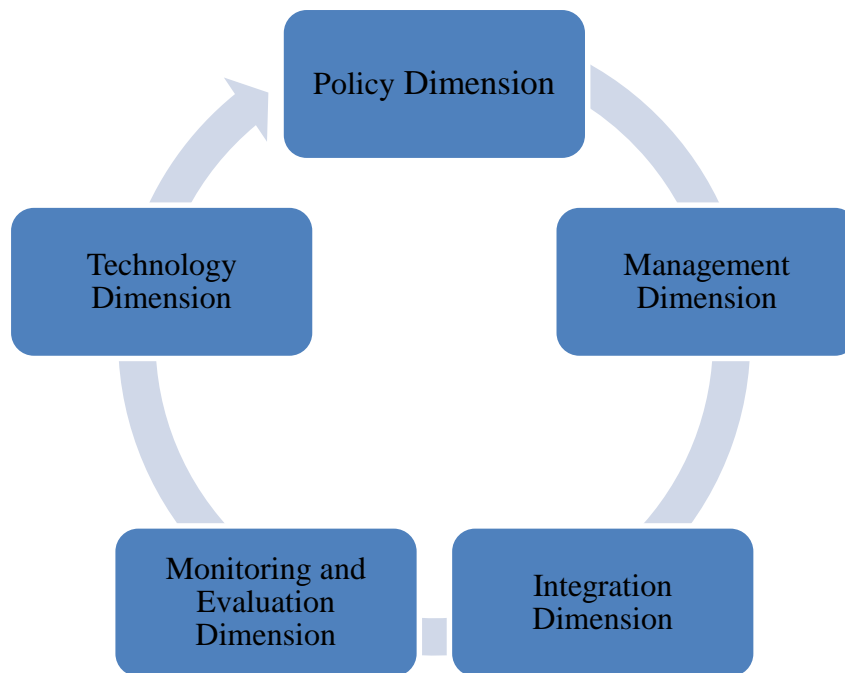
Figure 1 The Operation Model Development for Medical Cannabis Using of Public Hospitals in Sukhothai Province, Thailand

When developing an operating model for the use of medical marijuana in government hospital in Sukhothai Province. There are 5 main components, the results are as :

1. Personnel providing services in medical cannabis clinics of government hospitals in Sukhothai Province in year 2019 – 2023 (Jan. ‑ Apr.). It was found that personnel providing services in the medical marijuana clinics of government hospitals in Sukhothai Province include a variety of professions, such as doctors, dentists, pharmacists, Thai Traditional Medicine officers and nurses with the number of personnel attending training to serve more patients who come to receive services in medical marijuana clinics of government hospitals in Sukhothai Province. Details are shown in Figure 2.
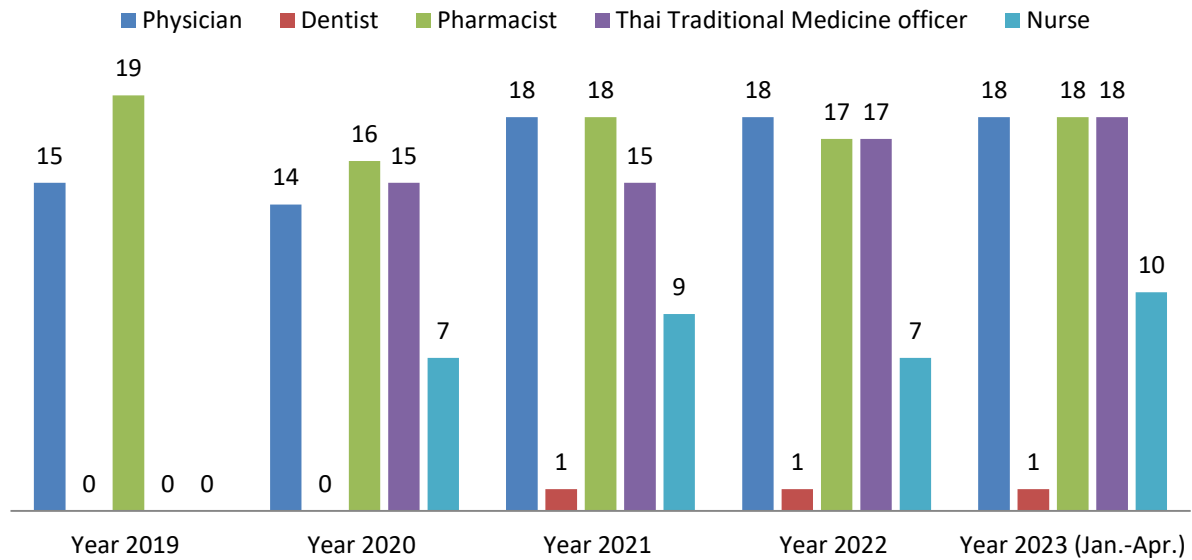
Figure 2 Number of personnel in medical cannabis using of
Public Hospitals in Sukhothai Province, Thailand

2.   Patients receiving services in medical marijuana clinics of government hospitals in Sukhothai Province, it was found that in year 2019 – 2023 (Jan.-Apr.). Patients come to receive services and receive medicine in the medical marijuana clinic of a government hospital in Sukhothai Province. Both Western Medicine and Thai Traditional Medicine tend to increase every year. It was found that most patients came to receive Thai Traditional Medicine more than Western Medicine , increasing every year. Details are shown in Figure 3-4.
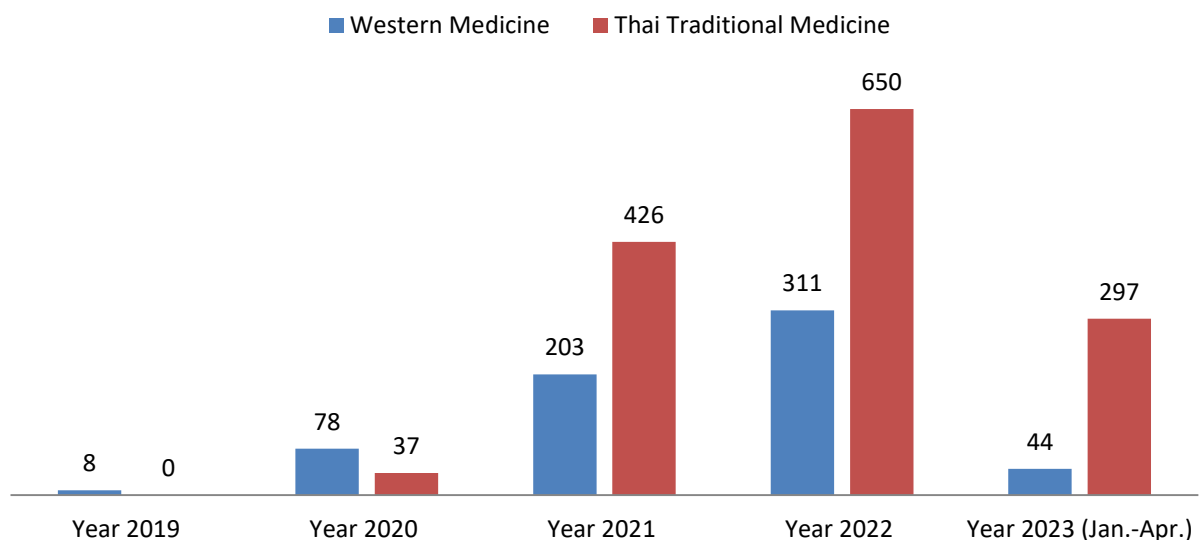
Figure 3 Number of patients receiving services in medical cannabis clinics of
Public Hospitals in Sukhothai province, Thailand

■ Western Medicine   ■ Thai Traditional Medicine
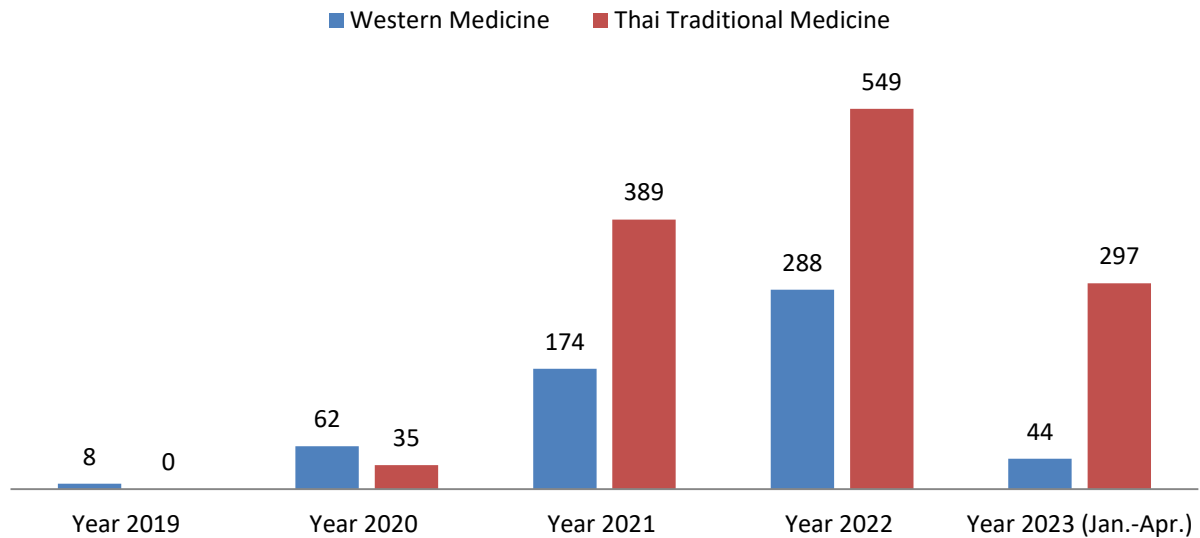
Figure 4 Number of patients receiving the drug in medical cannabis clinics
of Public Hospitals in Sukhothai Province, Thailand

3. Diseases and symptoms of patients receiving services in medical cannabis clinics of government hospitals in Sukhothai Province in year 2019 – 2023 (Jan.-Apr.). It was found that the top 5 diseases that patients come to receive services in medical marijuana clinics of government hospitals in Sukhothai Province include : Insomnia, Cancer, Muscular Tendon diseases, Neuropathic pain, Psoriasis. Details are shown in Figure 5.
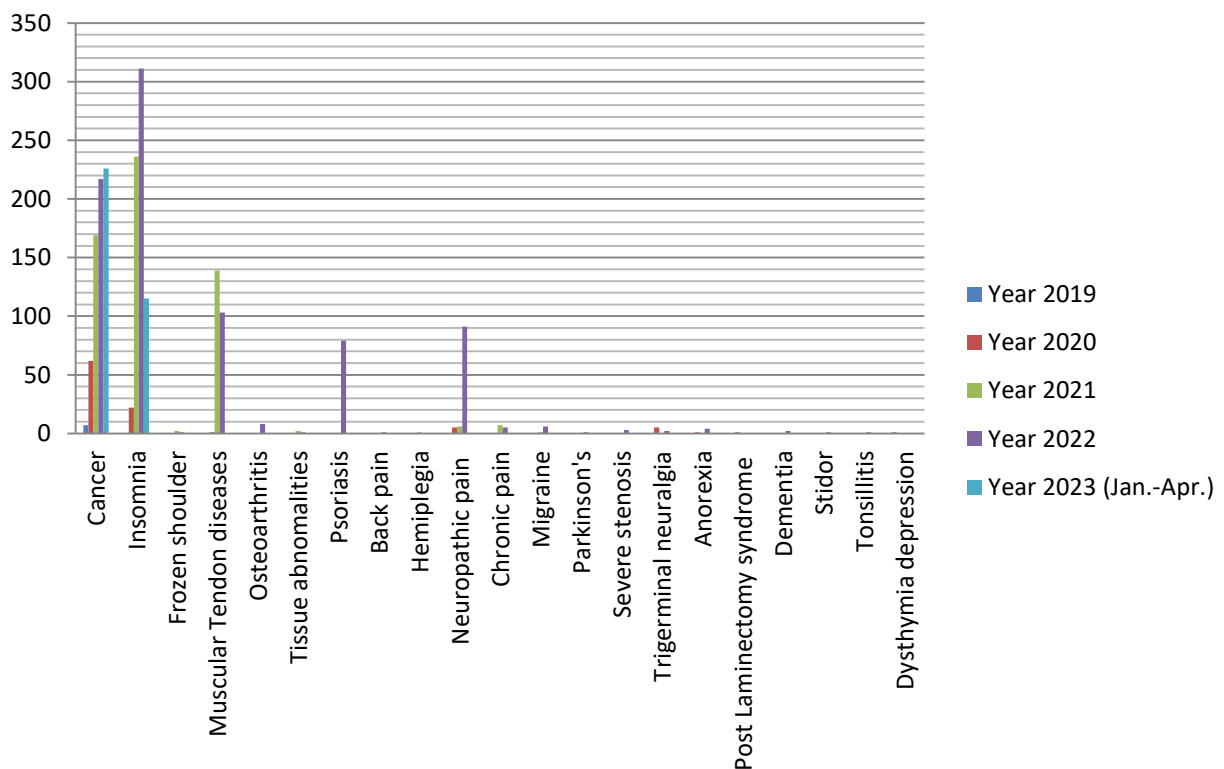
Figure 5 Diseases and symptoms that patients receive services in medical cannabis clinics of
Public Hospitals in Sukhothai Province, Thailand

4. Drugs used in the treatment of patients receiving services in medical marijuana clinics of public hospitals in Sukhothai Province in year 2019 – 2023 (Jan.-Apr.). It was found that most of the patients who received services in the medical marijuana clinics of public hospitals in Sukhothai Province received Thai Traditional Medicine to treat symptoms and diseases, consisting of Ya Suk Sai yad 500 mg./cap., Ya Tum Lai Pra Sumen 2 g./pack, 5 Hemp oil topical, Ya Kae Lom Kae Sen 500 mg. In addition, Western Medicine is used to treat patients, consisting of THC : CBD/ 1:1, 7% THC. Details are shown in Figure 6.
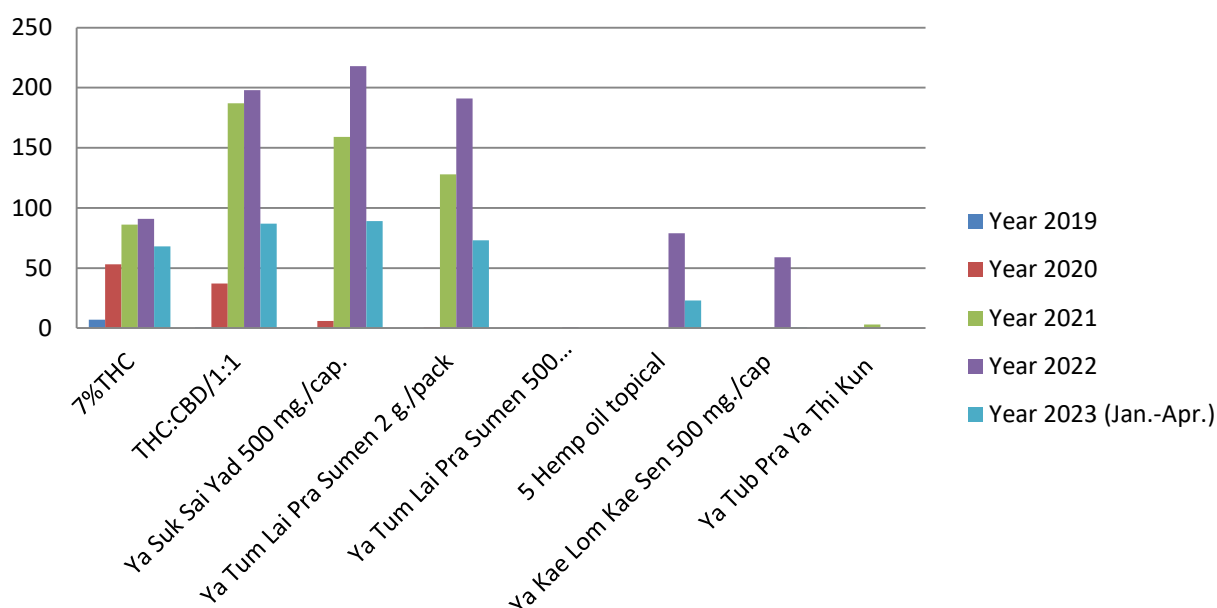
Figure 6 Medicines used to treat patients receiving services in Medical cannabis clinic of Public Hospitals in Sukhothai province, Thailand

5. Side effects of drugs used to treat patients receiving services in the medical marijuana clinic of a government hospital in Sukhothai Province were found in year 2019 – 2023 (Jan.-Apr.). Patients who came to receive services in medical marijuana clinics of public hospitals in Sukhothai Province had side effects from using Western Medicine and Thai Traditional Medicine, consisting of : Dizziness, ALT and AST increase, Nausea and Vomiting, Sleepy, Anxious, eGFR decreases, Feel dry, Heart palpitation. Details are shown in Figure 7.
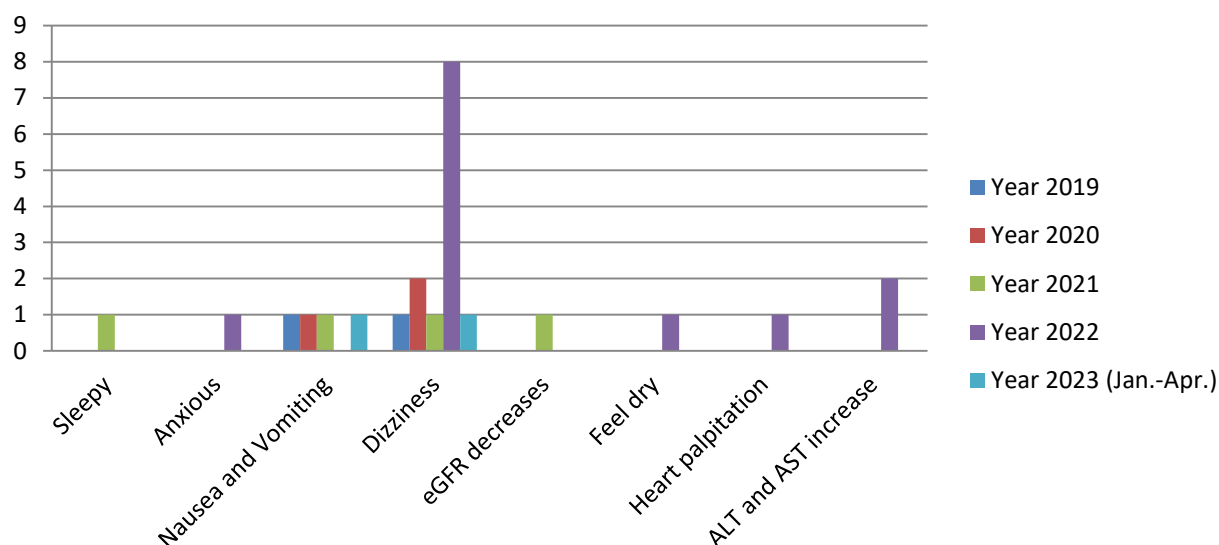
Figure 7 Side effects of Drug used to treat patients receiving services at the Medical cannabis clinic of Public Hospitals in Sukhothai province, Thailand

Discussions

Cannabis is a plant with the scientific name *Cannabis sativa* L. It has psychoactive effects. It is used for medical and recreational purposes. The psychotropic substance is Tetrahydrocannabinol (THC) (Chokevivat , 2019). In Thailand, marijuana is used medically for the benefit of treating patients based on evidence –based medicine (Nonthasawadri, 2020), safety, effectiveness and equity. By requiring that marijuana be used in the treatment of 3 groups of patients , consisting of 1) groups of diseases/conditions that benefit, with clear research findings, such as difficult- to- treat epilepsy that is resistant to medication Chemotherapy-induced nausea and vomiting that standard treatments are ineffective spasticity in patients with multiple sclerosis (Saijanket et al., 2020), intractable neuropathic pain. 2) Groups of diseases/ conditions that may be beneficial in controlling symptoms. More information should be available regarding its efficiency and safety such as Parkinson's disease, Alzheimer's disease, demyelinating disease, generalized anxiety disorder, palliative care patients, terminal cancer patients. 3) Groups of diseases/conditions that may benefit that require in vitro and animal research studies before human research studies (Akkasin, 2019). In Sukhothai Province, medical marijuana has been used as an alternative treatment for patients. Patients come to receive services and receive medicine in the medical marijuana clinic of a government hospital in Sukhothai Province. Both Western Medicine and Thai Traditional Medicine tend to increase every year. The top 5 diseases that patients come to receive services in medical marijuana clinics of government hospitals include : Insomnia, Cancer, Muscular Tendon diseases, Neuropathic pain, Psoriasis that used in the treatment of Thai Traditional Medicine to treat symptoms and diseases, consisting of Ya Suk Sai yad 500 mg./cap., Ya Tum Lai Pra Sumen 2 g./pack, 5 Hemp oil topical, Ya Kae Lom Kae Sen 500 mg. In addition, Western Medicine is used to treat patients, consisting of THC : CBD/ 1:1, 7% THC. However, patients who came to receive services in medical marijuana clinics had side effects from using Western Medicine and Thai Traditional Medicine, consisting of : Dizziness, ALT and AST

increase, Nausea and Vomiting, Sleepy, Anxious, eGFR decreases, Feel dry, Heart palpitation. However, medical marijuana is useful as an alternative treatment for patients and helps restore knowledge in Thai Traditional Medicine and recipes. It also reduces the cost of the country and patients.

Conclusion and suggestions

This research was divided into 3 phases. Phase 1 was a study of situations and problem finding in the operation of medical marijuana use in public hospital in Sukhothai Province. Phase 2 is the development of a model for operating the medical cannabis use of government hospitals in Sukhothai Province. Using medical marijuana from public hospitals in Sukhothai by in-depth interviews with hospital directors and medical marijuana operators of government hospitals in Sukhothai Province. Phase 3 is a follow up on the results of the development of an operating model for medical marijuana use in government hospitals in Sukhothai Province. Data was collected for a period of 6 months from 6 October 1, 2019 to April 30, 2023. When developing an operating model for the use of medical marijuana in government hospital in Sukhothai Province. There are 5 main components, consisting of Policy Dimension, Management Dimension, Integration Dimension, Monitoring and Evaluation Dimension, Technology Dimension.

The results are personnel providing services in medical cannabis clinics of government hospitals in Sukhothai Province in year 2019 – 2023 (Jan.-Apr.). It was found that personnel providing services in the medical marijuana clinics of government hospitals in Sukhothai Province include a variety of professions, such as doctors, dentists, pharmacists, Thai Traditional Medicine officers and nurses with the number of personnel attending training to serve more patients who come to receive services in medical marijuana clinics of government hospitals in Sukhothai Province. Patients come to receive services and receive medicine in the medical marijuana clinic of a government hospital in Sukhothai Province. Both Western Medicine and Thai Traditional Medicine tend to increase every year. The top 5 diseases that patients come to receive services in medical marijuana clinics of government hospitals include : Insomnia, Cancer, Muscular Tendon diseases, Neuropathic pain, Psoriasis that used in the treatment of Thai Traditional Medicine to treat symptoms and diseases, consisting of Ya Suk Sai yad 500 mg./cap., Ya Tum Lai Pra Sumen 2 g./pack, 5 Hemp oil topical, Ya Kae Lom Kae Sen 500 mg. In addition, Western Medicine is used to treat patients, consisting of THC : CBD/ 1:1, 7% THC. However, patients who came to receive services in medical marijuana clinics had side effects from using Western Medicine and Thai Traditional Medicine, consisting of : Dizziness, ALT and AST increase, Nausea and Vomiting, Sleepy, Anxious, eGFR decreases, Feel dry, Heart palpitation. Therefore the development of operations is systematic and efficient. Including patients receiving a combination of Thai Traditional Medicine and Western Medicine that work together as a multidisciplinary team to use cannabis as an alternative treatment for patients. Taking into account efficiency and safety together and continued monitoring of symptoms and side effects in the treatment of patients at the hospital and at the patient's home.

New knowledge and the effects on society and communities

The information obtained is used in joint planning between hospital staff, public health and community networks to educate people about the use of medical marijuana as an alternative treatment for patients. Including receiving services at the medical marijuana clinic of a government hospital in Sukhothai Province as well as educating patients and the public about the side effects of medical marijuana use. Including working together with network partners and communities to continuously monitor treatment and side effects in treating patients both in the hospital and at home.

Acknowledgments

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The editorial team has established regulations of manuscript submission for the authors to use as the guidelines of submitting manuscripts for publication. "Community and Social Development Journal : CSDJ *Formerly khows as* Chiang Mai Rajabhat Research Journal". The editors can review the manuscript before publication for the quality of the journal, and can be used as references. By the way, journal is the support academic work for society by setting aim and scope. To publish articles that are beneficial to society or localities in Social Sciences & Humanities with 5 sub-subject. 1) General Social Sciences 2) Development 3) Education 4) Political Science and International Relations 5) General Business, Management and Accountin s, which can be shown that it is able to solve problems or improve society, community and locality. Moreover, it clearly brings benefits, or changing in awareness and perception of problems and solutions of community.

Preparation for the original article, the details are as follows

Title of the Paper (Times New Roman, 16 pt, **Bold**)

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(Received: xxx,   Revised: xxx,   Accepted: xxx)   (Times New Roman, 10 pt, Italic)

Abstract Text (Times New Roman, 12 pt, Tab 0.8 cm)

It Is a summary of the main point, type of research, research objective, research methodology. Summarize the research results in a concise, clear and a new knowledge including things that will effect society and local community. Identify important statistics. Use concise language in complete sentences and prose, not divided into sections. The abstract in both Thai and English should not exceed 1/2 page of A4 size paper, and specify

Keywords: Keyword, Keyword, Keyword, Keyword, Keyword (Times New Roman, 12 pt; 5-7 keywords/phrases)

Introduction: Text (Times New Roman, 12 pt, Tab 0.8 cm)

Write the background and importance of the problem. Theoretical concepts used, objectives and advantages.

Methodology: Text (Times New Roman, 12 pt, Tab 0.8 cm)

Describe the instruments and equipment used in the experiment, and describe the experimental study methods. Population and sample, research method, research instruments, data collection and data analysis.

Results: Text (Times New Roman, 12 pt, Tab 0.8 cm)

Writing a study proposal should be concise and show research results clearly.

Discussion: Text (Times New Roman, 12 pt, Tab 0.8 cm)

Writing discussions of study results is to clarify the research results whether it corrects according to the objectives, research hypothesis. It is consistent or inconsistent with previous research of others, how and for what reason. Compare or interpret to emphasize the importance of the research and summarize as easy as possible.

Conclusion and suggestions: Text (Times New Roman, 12 pt, Tab 0.8 cm)

Write a summary of the main points of the research whether it corrects to the objective or not, by focusing on the problems or argument in the main points including useful suggestions.

New knowledge and the effects on society and communities: Text (Times New Roman, 12 pt, Tab 0.8 cm)

Write a summary of the new knowledge that happened, and the effects on the society, local and communities.

Acknowledgement: Text (Times New Roman, 12 pt, Tab 0.8 cm)

May or may not be there. It was an expressing gratitude to those who contributed to the research, but not the participants in the research.

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American Psychological Association (APA) 6th edition (applied)writing format, by inserting a references to the content. Specify the surname of author, year of publication, and reference page number.

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Elmastas, M., lsildak, O., Turkekul, I., & Temur, N. (2007). Determination of antioxidant activity and antioxidant compounds inwild edible mashroom. *Food Composition and analysis*, *20*(1), 337-345**.** DOI:10.2196/jmir.2130 or https://www.abc.ac.th/article12345

2. Book

Surname. (Year of publication). Title of book. (Edition). Place: Publisher

Rangkhakunnuwat, P. (2013). *Time Series Analysis for Economics and Business*. (4thed.). Bangkok: Chulalongkorn University Printing House.

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3. Thesis (If the that subject has an article in journal use references from the journal)

Author. (Year). *Translated Title of dissertation*. (Doctoral dissertation or Master's thesis, University).

Sunretphol, N. (2004). *A Development of Educational Indicators for Lifelong Learning*. (Ph.D., Srinakharinwirot University).

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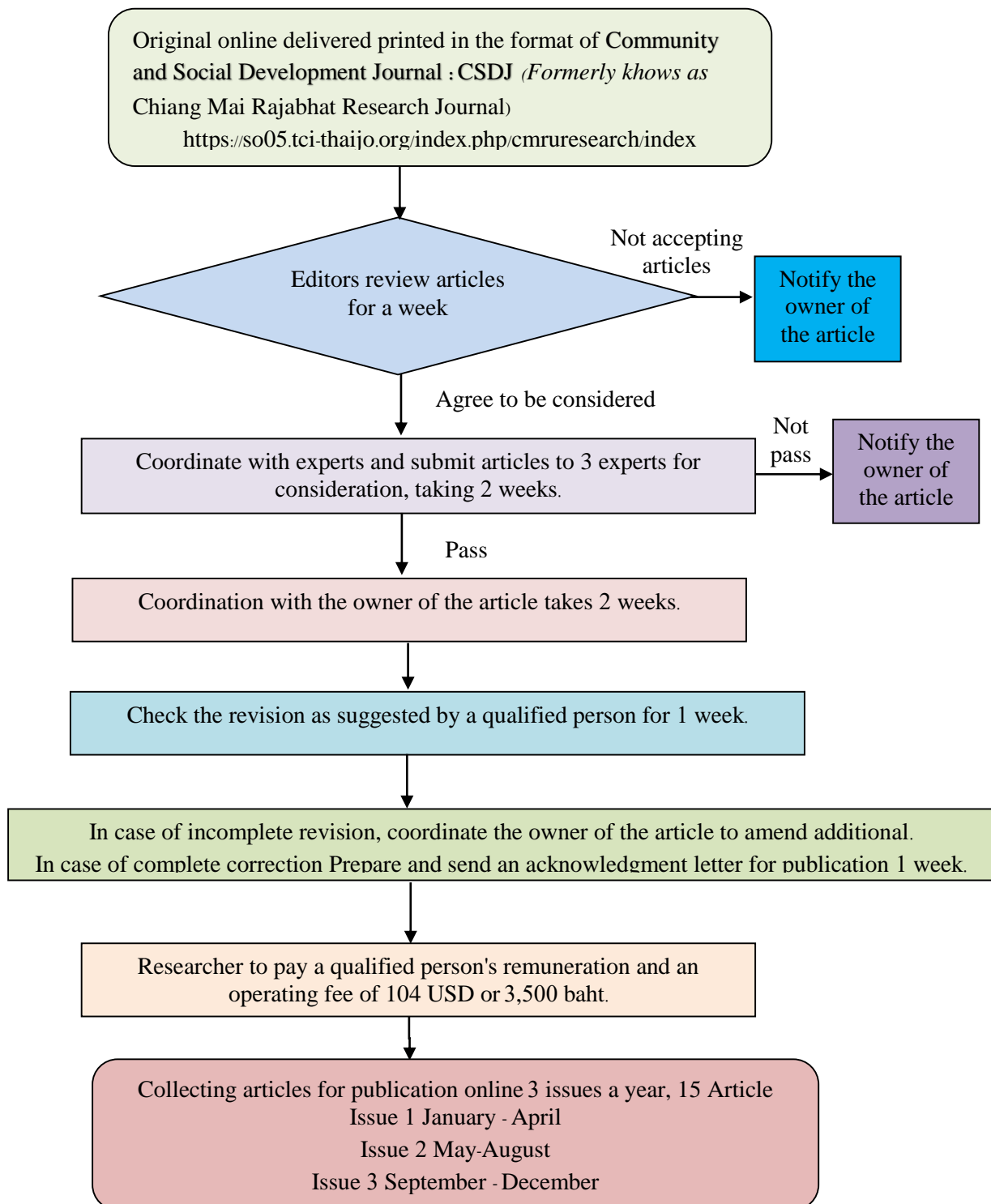
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