THE INFLUENCE OF ENTERPRISE MOBILE LIVE-STREAMING MARKETING OPERATIONS ON CUSTOMER LOYALTY

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Abstract

This study aims to analyze the influence of enterprise operation on mobile live-streaming marketing platforms and its quality on customer behavior, which has been analyzed based on the previous studies with the developed questionnaire, in which 414 collected sets in China as a sample. Enterprises and online platforms in the context of mobile live streaming have three constructs: system quality, information quality, and service quality. These factors would influence customer behaviors regarding perceived usefulness and trust in both enterprise and platform, affecting customer loyalty.

Moreover, several findings have proved the direct relationship between those factors in a specific context and area. In contrast, the new results reveal more complex relationships, such as indirect relationships between those factors. In addition, this paper will contribute more practical suggestions to enterprises that want to magnify their advantages through mobile live-streaming marketing platforms.

Keyword: Information System Success Model, Perceived Usefulness, Trust, Customer Loyalty

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Introduction

With the promotion and use of 5G mobile communication technology, along with the impact of the COVID-19 pandemic, the development of mobile live-streaming marketing has reached a peak (Sang, 2020). Therefore, many enterprises choose or establish their own mobile live-streaming marketing platform, hoping to promote awareness of their products and services with the help of the platform power so that they can obtain and maintain their customer base and occupy a favorable position in the fierce competition. Specifically, the quality of the mobile live-streaming marketing platform directly affects whether platform users (i.e., the customers) adopt and use the platform (Wongkitrungrueng & Assarut, 2020) as the main channel and interface for customers to interact with enterprises, which also directly determines whether the marketing strategy chosen by the enterprises are flourishing. However, mobile platforms have disadvantages such as a relatively small interface, insufficient resolution, inconvenient input, and slower response speed than traditional e-commerce websites (Corral et al., 2012). Therefore, enterprises must take effective solutions to improve customers' purchasing experience to ensure the success of their chosen mobile live-streaming marketing strategy.

In this article, the research based on the information system success model, technology acceptance model, stimulate organism response model, and trust theory in order to find the impact of the quality of the mobile live-streaming marketing platform as a critical success factor for enterprise operation leading to the customer loyalty through empirical analysis. As a result, this paper will provide specific guidelines for the enterprises that choose the mobile live-streaming marketing strategy and help them to take targeted solutions to improve themselves so that it will effectively improve their customers' loyalty.

Related Literature and Model Constructs

The information system success model proves that system quality and information quality determine users' use and satisfaction with an information system, impacting organizational performance. (Delone & Mclean, 1992). In the subsequent study, service quality was added to the information system success model as a new variable, and it showed how information quality, system quality, and service quality affect the net benefits (Delone & Mclean, 2003; 2004). In addition, the model has been

developed and applied in various fields since its establishment. For example, the information system success model finds out that system quality and information quality significantly affect information satisfaction and system satisfaction, respectively, furthermore determines perceived usefulness and ease of use which ultimately affects user behavior after it integrates user satisfaction and technology acceptance model (Petter et al., 2008, Wixom & Todd, 2005).

According to the above descriptions, the understanding of system quality, information quality, and service quality in this paper can be explained as follows:

(a) System Quality

System quality reflects the system characteristics of the mobile platform, such as the platform's reliability, navigation effectiveness, and the rationality of interface layout (Zhou, 2011). At the same time, as the basis of platform operation, the platform system also carries the other two main aspects of the platform: information and service. Therefore, the system quality of the platform is the cornerstone of the operation and development of the whole platform. Suppose the system quality of the platform is unreliable, such as failing to provide reliable and uninterrupted service, providing effective navigation and service, or the interface layout is chaotic. In that case, all of these will give users a poor first impression, directly leading to the platform's abandonment.

(b) Information Quality

In this study, information quality not only reflects the content characteristics of the platform but also shows the accuracy, integrity, effectiveness, and other characteristics of the enterprise's product information (Kahn et al., 2002). One of the primary purposes for customers to access products on the platform is to obtain complete description information about the products. If the information provided by the enterprises through the platform (or the platform itself) is inaccurate, incomplete, or expired, it will cause customers' concerns about the quality control of the enterprises and the platform (Liu Liang, 2021).

(c) Service quality

The service quality of the mobile platform reflects the service characteristics displayed by the platform on behalf of the enterprises, including reliability, responsiveness, assurance, empathy, and so on (Parasuraman et al., 1988, Gefen, 2002). Specifically, reliability indicates that enterprises can provide punctual service to customers according to their promises through the platform; moreover, researchers have proved that reliability is

the most critical dimension of service quality (Cenfetelli et al., 2008). Responsiveness requires that enterprises can make the most timely and high-quality replies to customers' questions through the platform; Assurance means that the enterprises have the capability and technology to perform their tasks through the platform (or the platform itself) so that customers can build confidence in the enterprise and the platform. Finally, empathy means that enterprises can provide personalized services to customers through the platform (or the platform itself), which shows that enterprises or platforms care about customers.

Perceived Usefulness

The original technology acceptance model believed that the main factors affecting users' use of information systems could be summarized into two aspects: perceived usefulness and perceived ease of use (Davis, 1989). Moreover, perceived usefulness reflects the improvement of efficiency (or performance) brought by the use of the information system; ease of use reflects the difficulty of using the information system (Davis et al., 1989). Like the development of the success model of information systems, the technology acceptance model has been constantly improved and innovated in subsequent research. For example, some studies have found that when people conduct online transactions, their transaction motivation is influenced by perceived usefulness far more than perceived ease of use (Venkatesh & Davis, 2000, Fang et al., 2005). At the same time, the process of research on users' adoption behavior of mobile data services found the need for uniqueness for perceived usefulness and perceived ease of use (Hong & Tam, 2006); In addition, some researchers later developed theoretical models such as the Integration Theory of Technology Adoption and Use based on the technology acceptance model to explain users' adoption behavior of information technology (Venkatesh et al., 2003). Based on the previous research results, this study selected perceived usefulness as an intermediate variable because usefulness has been shown to significantly affect both the users' initial and continuous use behavior. Therefore, compared with the perceived ease of use, perceived usefulness can measure more accurately the changes in life or efficiency brought to customers through mobile live-streaming marketing platforms and is an essential factor in determining customer behavior.

Trust

Generally speaking, trust is considered to be the willingness of one party in a weak position to have a positive expectation of the other's future behavior (Mayer et al., 1995; Gefen, 2002). Customer trust is crucial for enterprises and mobile platforms due to the typical characteristics of mobile platforms, such as virtual, spatial-temporal separation, and lack of control. Especially when customers are in the registration process to be platform users must provide their factual personal information; however, once the information is improperly used or leaked due to security vulnerability will bring unnecessary risk and uncertainty to the customer. As a result, there's a need for the customer, enterprise, and platform to establish trust and improve the degree of alignment between each other. Specifically, trust can be regarded as a belief composed of ability, honesty, goodwill, and other dimensions (Blomqvist, 1997). Capability indicates that enterprises demonstrate to customers through the mobile platform (or the platform itself) that they have all the necessary knowledge and ability to meet customers' information or service needs; Honesty refers to the enterprises and mobile platforms will keep their promises without cheating; Goodwill shows that enterprises and mobile platforms will focus on their customers' interests, not only their own.

Customer loyalty

Different from the trust, customer loyalty is a quantitative concept. It refers to the degree to which customers become emotionally dependent on the products or services of a particular enterprise under the influence of many factors such as quality, price, and service, and then repeatedly purchase the products or services of the enterprise for a long time (Oliver, 1997; Anderson & Weitz, 1992; Boulding et al., 1993). Customer loyalty is to evaluate and measure the willingness of customers to re-purchase and continue to participate in related activities. Based on the understanding and description of customer loyalty above, this paper defines customer loyalty as a quantitative index based on overall customer satisfaction, the probability of repeated purchases, and the possibility of giving recommendations to others.

Research Model

The Stimulus-Organism-Response (SOR) model is a framework that examines the impact of environmental factors on consumer behavior. It considers the surrounding factors during the shopping process as stimuli, the consumer's cognition and sentiment as intermediary variables, and the consumer's approach or avoidance behavior as the output (Mehrabian & Russell, 1974). So, SOR model explains how consumer behavior is influenced by cognition and sentiment, and it also elucidates the relationship between purchasing behavior and psychological changes (Belk, 1975).

Based on stimulus-organism-response model and previous studies discussed in the literature review, the proposed research model is illustrated in Figure 1, which has been noted to identify the eight research hypotheses associated with the hypothesized causal relationships among the variables.
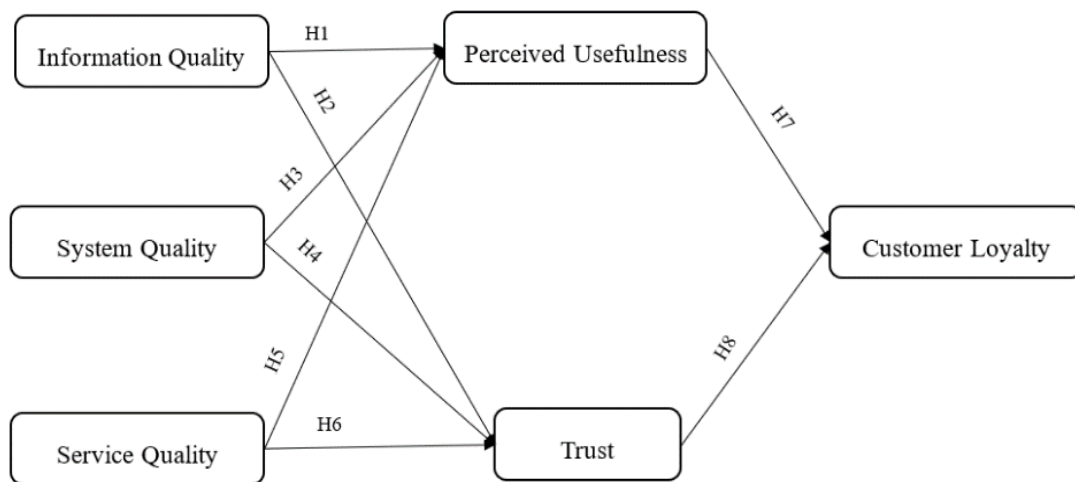
Figure 1 Research Model

Moreover, those research hypotheses that stated the direct causal effect relationships among the variables are referenced from previous related studies and are shown in Table 1. The references are used to identify a logical relationship between the two variables involved in the hypothesis.

Table 1 Research hypotheses

Research Hypotheses	References	Research Hypotheses	References
Information quality has a significant positive direct effect on: H1: Perceived usefulness H2: Trust	Delone & Mclean (2003; 2004); Petter et al. (2008); Wixom & Todd (2005); Davis et al. (1989); Venkatesh & Davis (2000); Fang et al., (2005); Venkatesh et al. (2003); Hong & Tam, (2006)	System quality has a significant positive direct effect on: H3: Perceived usefulness H4: Trust	Delone & Mclean (2003; 2004); Petter et al. (2008); Wixom & Todd (2005); Zhou (2011); Davis et al. (1989); Venkatesh & Davis, (2000); Fang et al., (2005); Venkatesh et al. (2003); Hong & Tam, (2006)
Service quality has a significant positive direct effect on: H5: Perceived usefulness H6: Trust	Delone & Mclean (2003; 2004); Petter et al. (2008); Wixom & Todd (2005); Parasuraman et al. (1988); Gefen (2002), Davis et al. (1989); Venkatesh & Davis (2000); Fang et al. (2005); Venkatesh et al. (2003); Hong & Tam (2006)	Perceived usefulness has a significant positive direct effect on: H7: Customer loyalty	Davis (1989); Davis et al. (1989); Venkatesh & Davis (2000); Fang et al. (2005); Hong & Tam (2006); Venkatesh et al. (2003); Oliver (1997); Anderson &Weitz (1992); Boulding et al., (1993)
		Trust has a significant positive direct effect on: H8: Customer loyalty	Mayer et al. (1995); Gefen (2002); Blomqvist (1997); Oliver (1997); Anderson & Weitz (1992); Boulding et al., (1993)

However, it should be noted that no research hypothesis in Table 1 concerns indirect effects, which is considered the limitation of this present research. For further understanding, the Structural Equation Modeling (SEM) analysis was used to analyze, report, and identify whether any significant mediation effects exist among the studied variables.

Table 2 shows the labels for the indicators, which were measured on Five-point Likert scales and treated as interval scale measures. The following table used references from previous studies as the source of the current measuring instrument.

Table 2 Measurement and instruments

System Quality	SYQ1: The mobile live-streaming marketing platform is reliable.
	SYQ2: The interface distribution of the mobile live-streaming marketing platform is organized.
	SYQ3: The mobile live-streaming marketing platform responds quickly to customer inquiries.
Information Quality	IQ1: The product information displayed in the video on this platform is what I need.
	IQ2: The product information displayed in the video on the platform is accurate.
	IQ3: The product information displayed in the video on the platform is complete.
Service Quality	SEQ1: Relevant services provided by the enterprise and the platform are on time.
	SEQ2: The enterprise and platform can respond promptly to my questions.
	SEQ3: Enterprises can provide personalized and professional services through the platform.
Trust	T1: The enterprise and platform have the necessary knowledge and ability to complete relevant operational tasks.
	T2: The enterprise and platform have the necessary knowledge and ability to solve the problems encountered in operation.
	T3: The operation of the enterprise and platform is committed.
	T4: The enterprise and platform focus on the interests of their customers, not just themselves.
Perceived Usefulness	PU1: The platform has helped me improve my purchasing efficiency
	PU2: The platform has helped me improve my life and work quality.
Customer Loyalty	CL1: I will continue to purchase the products and services provided by this enterprise.
	CL2: I will continue to use the platform.
	CL3: I will recommend the company and its platform to other customers.

Data Collection and Analyzing

The data collected from 414 Chinese respondents were entered into an SPSS worksheet and select 10 percent of them randomly to check the accuracy and applicability of data entry. As a result, neither errors were found, nor missing values were included in the questionnaires and no outlier measure for any of the indicators for the latent variables in this paper.

Participants and Model Variables

Descriptive statistics for the distributions of the personal characteristics of the 414 participants included are summarized in Table 3.

Table 3 Description statistics of personal characteristics of respondents

Characteristics	Descriptive Statistics
Gender	204 Males (49.3%); 210 Females (50.7%)
Age (Years)	Mean = 31, Median = 28, Mode = 23[a] (21.3%), Standard Deviation = 10
Level of Education (Years)	Mean = 15, Median = 16, Mode = 16 (61.4%), Standard Deviation = 2
Occupation	Mode = Full Time Student (21.5%)
Income/monthly (Yuan)	Mean = 5,458, Median = 6,000, Mode = 8,000 (20.0%), Standard Deviation = 3,221
Expenditure/monthly (Yuan)	Mean = 3,453, Median = 2,000, Mode = 2,000 (36.2%), Standard Deviation = 2,374
Purchasing Channel	Mode = MOGU (16.9%)

a: Multiple modes exist. The smallest value is shown

The main participants are less than 36 years of age, and the majority of respondents are in the age range of 21 to 35 years. More than half of the respondents (61.4%) hold a bachelor's degree, and 21.5% of responders still are full time students. Moreover, there are 20% of responders have a monthly income which is greater than 8,000 Yuan. Moreover, more than 79 percent of the participants declared their monthly expenditure to be less than 5,000 Yuan. The most frequently utilized online platform by the respondents is MOGU which serves as one of China's prominent channels for online purchases.

Principal component factor analysis was applied to examine the construct validity of the latent variables. This required indicators to load onto only the latent variable that they were proposed to measure with a factor loading of at least 0.4 in magnitude and an associated eigenvalue of at least 1 (Straub & Gefen, 2004). The equivalence reliability of the sets of indicators was assessed using Cronbach alpha coefficients. The satisfactory results for construct validity and equivalence reliability are shown as part of Table 4.

Table 4: Model variables: validity, reliability, and descriptive statistics

Variable and Indicator		Validity/Reliability			Descriptive Statistics			
		Factor Loading	Eigen value (% of variance)	Cronbach Alpha	Mean	Standard Deviation	Skewness	Kurtosis
Trust	T1	.90	6.0 (33.3)	.92	3.71	.96	-.54	.12
	T2	.92			3.58	.96	-.48	-.05
	T3	.90			3.62	.95	-.62	.33
	T4	.80			3.62	.89	-.29	.16
Service Quality	SEQ1	.87	2.5 (14)	.92	3.27	1.03	-.40	-.45
	SEQ2	.90			3.31	1.02	-.21	-.28
	SEQ3	.84			3.40	.97	-.22	-.09
Information Quality	IQ1	.89	2.3 (12.8)	.89	3.14	.91	.02	.06
	IQ2	.91			2.93	.96	.21	.04
	IQ3	.87			3.11	.86	.10	.35

Variable and Indicator		Validity/Reliability			Descriptive Statistics			
		Factor Loading	Eigen value (% of variance)	Cronbach Alpha	Mean	Standard deviation	Skewness	Kurtosis
System Quality	SYQ1	.88	1.7 (9.4)	.88	3.76	.84	-.10	-.70
	SYQ2	.85			3.84	.85	-.09	-.90
	SYQ3	.89			4.17	.84	-.60	-.64
Customer Loyalty	CL1	.81	1.4 (7.6)	.85	4.01	.80	-.27	-.79
	CL2	.80			3.81	.74	-.10	-.43
	CL3	.80			3.97	.74	-.20	-.52
Perceived Usefulness	PU1	.92	1.0 (5.7)	.87	2.83	1.12	.22	-.51
	PU2	.90			3.21	1.00	-.01	-.19

Note for Factor Analysis: *Extraction Method:* Principal Component Analysis. *Rotation Method:* Equamax with Kaiser Normalization. Rotation converged in 6 iterations. Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.841. Bartlett's Test of Sphericity Approx. Chi-Square = 4992.17, df = 153, Significance = 0.00. Components with eigenvalues less than 1 are not shown. Percentage of total variance explained = 82.827%.

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The value of skewness and kurtosis has a limitation of 3 and 7, respectively, under the use of SEM analysis (Kline, 2016). For descriptive analyses, the latent variables were converted to single interval scale measures using the weighted mean of the values of their indicators with the standard deviations as the weights. These single-scale measures are used only in the following descriptive analyses. The separate values of the indicators were used in the SEM analyses.

Table 5 shows the results of t-tests used to compare the mean values of model variables with the neutral value of 3 on the 5-point scale measures of the indicators.

Table 5 Comparisons of the means with the neutral value of 3

Indicators	t	Sig. (2-tailed)	Mean-3	Indicators	t	Sig. (2-tailed)	Mean-3
SYQ1	18.508	.000	.763	T1	14.980	.000	.708
SYQ2	20.072	.000	.838	T2	12.283	.000	.580
SYQ3	28.282	.000	1.169	T3	13.411	.000	.623
IQ1	3.091	.002	.138	T4	14.212	.000	.618
IQ2	-1.385	.167	-.065	PU1	-3.024	.003	-.167
IQ3	2.623	.009	.111	PU2	4.370	.000	.215
SEQ1	5.404	.000	.273	CL1	25.600	.000	1.010
SEQ2	6.237	.000	.312	CL2	22.067	.000	.807
SEQ3	8.326	.000	.396	CL3	26.603	.000	.966

In Table 5 shaded cells identify variables and indicators with mean values that are not statistically significant ($p< 0.05$) different from the neutral value of 3, including the mean values of IQ2 and PU1. The means for all of the other indicators and single scale measures for the latent variables are significantly greater than the neutral value of 3 ($p< 0.05$) except for IQ2 and PU1, which are significantly less than 3.

Table 6 Comparisons of the means with the neutral value of 3 for males and females

Indicators	Males			Females		
	t	Sig. (2-tailed)	Mean-3	T	Sig. (2-tailed)	Mean-3
SYQ1	12.676	.000	.765	13.486	.000	.762
SYQ3	14.485	.000	.853	13.886	.000	.824
SYQ4	19.013	.000	1.137	20.979	.000	1.200
IQ1	1.936	.054	.123	2.426	.016	.152
IQ2	-.517	.606	-.034	-1.425	.156	-.095
IQ3	1.136	.257	.069	2.563	.011	.152

Table 6 Comparisons of the means with the neutral value of 3 for males and

females (Cont.)

Indicators	Males			Females		
	t	Sig. (2-tailed)	Mean-3	T	Sig. (2-tailed)	Mean-3
SEQ1	5.129	.000	.363	2.589	.010	.186
SEQ2	5.652	.000	.387	3.288	.001	.238
SEQ3	7.276	.000	.475	4.639	.000	.319
T1	10.159	.000	.681	11.000	.000	.733
T2	8.307	.000	.569	9.051	.000	.590
T3	9.826	.000	.642	9.139	.000	.605
T4	11.592	.000	.672	8.762	.000	.567
PU3	-1.995	.047	-.152	-2.269	.024	-.181
PU4	3.974	.000	.265	2.307	.022	.167
CL1	19.405	.000	1.059	16.929	.000	.962
CL2	16.286	.000	.853	14.943	.000	.762
CL3	20.364	.000	1.029	17.442	.000	.905

Shaded cells in Table 6 identify variables and indicators where there was not a statistically significant difference between the mean and the neutral value of 3 ($p < 0.05$).

Correlations among variables are shown in Table 7, where the bold type indicates statistical significance at a level of 0.05 or less.

Table 7: Correlation analysis

	G	AG	ED	IC	EX	CH	SYQ	IQ	SEQ	T	PU	CL
Gender (G)	1											
Age (AG)	-.04	1										
Education (ED)	.14**	.08	1									
Income (IC)	-.09	.45**	.35**	1								
Expenditure (EX)	-.02	.39**	.24**	.71**	1							
Channel (CH)	-.06	.082	-.07	-.09	-.09	1						
System quality (SYQ)	.01	-.02	.03	-.03	-.04	.06	1					
Information quality (IQ)	.01	-.05	.03	-.02	-.08	-.03	.10*	1				
Service quality (SEQ)	-.09	.05	-.06	-.01	-.01	.09	.24**	.28**	1			
Trust (T)	-.01	-.00	.05	.00	-.03	-.03	.14**	.16**	.32**	1		
Perceived usefulness (PU)	-.03	-.02	-.02	-.05	-.04	-.00	.21**	.25**	.36**	.14**	1	
Customer Loyalty (CL)	-.08	.082	.00	.01	-.01	-.05	.41**	.26**	.48**	.42**	.23**	1

All the coefficients of causal effects in the research model show a significant and positive relationship with each other, according to table 7. More importantly, four

potential relationships/effects can be added to the research model in this paper (i.e., Perceived usefulness ➜ Trust, System Quality, Information Quality, Service Quality, and Customer Loyalty). Therefore, those potential relationships are added in the next section for further discussion.

Model Analyses and Development

Figure 2 shows the results of the SEM analysis of the theoretical model using AMOS 23 software.
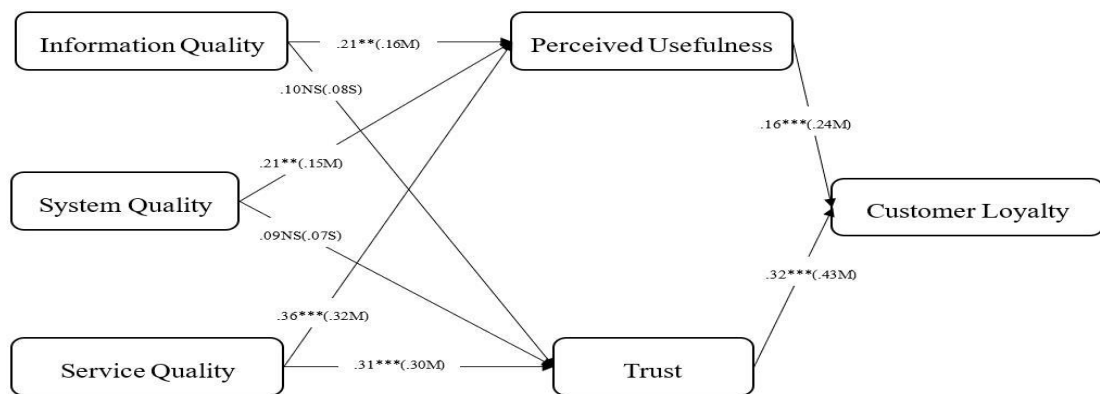
Note: Direct effects are shown using the following notation: The direct unstandardized effect is shown followed by *, **, or *** if the effect is statistically significant at a level of 0.05, 0.01, or 0.001, respectively; [NS] represents not statistically significant at a level of 0.05 or less. In parentheses, the standardized effect is shown with S, M, or L to indicate that the magnitude of the effect is small, medium, or large, respectively.

Figure 2 Direct Effects in Research Model

Table 8 shows a range of fit statistics for the theoretical model as recommended by Kline (2016).

Table 8 Fit statistics for the theoretical model

| Theoretical Model	N	Normed Chi-square (NC = χ^2/df)	RMR	GFI	AGFI	NFI	IFI	CFI	RMSEA
	414	314.849/124 = 2.54	0.06	0.92	0.89	0.94	0.96	0.96	0.06
		R^2: PU (0.21), T (0.13), CL (0.28)							

From Table 8 it is seen that the fit statistics RMR and AGFI are slightly less than satisfactory, and the effect of Information Quality and System Quality on Trust in

Figure 2 is small and not statistically significant. Consequently, it is desirable to seek an improved model. Four additional direct effects suggested by the significant correlations in Table 7 were added to the theoretical model, and together with the effect of Information Quality and System Quality on Trust, these six effects were made optional in a specification search using Amos. The 64 models in the hierarchy were analyzed and among these the model with the least value for NC was selected as the final model (Kline, 2016). Fit statistics for the final model are shown in Table 9, and direct effects are shown in Figure 3.

Table 9 Fit statistics for the final model

Theoretical	N	Normed Chi-square (NC = χ^2/df)	RMR	GFI	AGFI	NFI	IFI	CFI	RMSEA
Model	414	257.296/125 = 2.06	0.05	0.93	0.91	0.95	0.97	0.97	0.05
		R^2: PU (0.20), T (0.12), CL (0.41)							

The final model has improved fit statistics, and the model explains reasonable proportions of the variance of the endogenous variables (R^2).
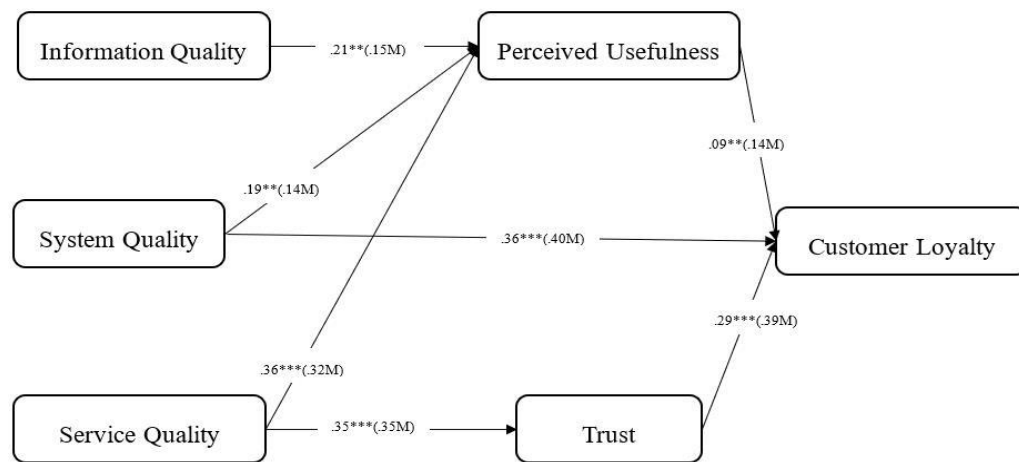
Note: Direct effects are shown using the following notation: The direct unstandardized effect is shown followed by *, **, or *** if the effect is statistically significant at a level of 0.05, 0.01, or 0.001, respectively; [NS] represents not statistically significant at a level of 0.05 or less. In parentheses, the standardized effect is shown with S, M, or L to indicate that the magnitude of the effect is small, medium, or large, respectively.

Figure 3 Direct effects in the final model

Table 10 summarizes the nature of all of the significant effects based on the totals of all direct and indirect effects in the final model.

Table 10 Summary of the nature of causal effects in the final model

Variables	Perceived Usefulness	Trust	Customer Loyalty
Information Quality	Medium	Nil	Small
	Only Direct		Mainly Indirect
System Quality	Medium	Nil	Medium
	Only Direct		Mainly Direct
Service Quality	Medium	Medium	Medium
	Only Direct	Only Direct	Mainly Indirect
Perceived Usefulness	Nil	Nil	Medium
			Only Direct
Trust	Nil	Nil	Medium
			Only Direct

Discussion of the Findings

The findings supported most of the hypotheses for direct effects, excluding H2 and H4: Information Quality has a significant positive direct relationship with trust, and System Quality has a significant positive direct relationship with trust. As a result, no proof that improving information or system quality will significantly increase customer trust. In addition, statistical evidence supports the view that System Quality has a significant positive direct relationship with customer loyalty.

Also, there are new findings that are summarized in Table 11. These new findings are related to direct and indirect effects and are included in the model analysis and development discussion.

Table 11 Summary of new findings

New Findings
Direct effects on customer loyalty due to system quality, perceived usefulness, and trust are positive, medium, and significant.
The direct effect on trust due to information and system quality is not statistically significant.
Indirect effects on customer loyalty due to information and service quality through perceived usefulness are positive and significant.

However, those new findings require further and detailed analysis regarding the validity, such as further discussion of the indirect and total effects in future related research.

Discussion and Implications

As shown in Figure 3, only service quality has a significant positive direct effect on trust, indicating that customer trust will be significantly affected when enterprises provide timely, professional, and personalized products and services through mobile live-streaming platforms. The main advantage of mobile live streaming platforms is their ubiquity and real-time performance; customers can obtain product information or services anytime and anywhere (Lee et al., 2023). When enterprises effectively improve their service quality through the platform, customers will significantly improve their ability, honesty, and goodwill faith in the enterprise and its platform, which will directly affect customers' trust in the enterprise and its platform, which also directly acts on customer loyalty. In addition, information, system, and service quality jointly act on perceived usefulness as the composition of the mobile live-streaming platform. One of the primary purposes for customers to access mobile live-streaming platforms is to obtain the latest and most valuable information about the products or services they are interested in (Liu et al., 2022). Therefore, when implementing mobile live streaming marketing strategies, enterprises need to optimize mobile live streaming platform systems to position customer needs with the latest, accurate and extensive product information, improve customer perception and experience, and further promote customer loyalty. In particular, enterprises should prioritize the design of the mobile live streaming platform, especially the usability and navigation functions (Xiao et al., 2022). Because the main terminal of customers to access live broadcasting is intelligent devices, such as smartphones and tablet computers, which are often limited by low resolution, inconvenient input, and other factors, customer purchasing experiences are more easily swayed. In this context, it is of great significance to provide a system platform with high usability and strong navigation ability to the customer, which can improve customer perception and effectively enhance customer loyalty to the enterprise and its mobile live broadcasting platform. Perceived usefulness and trust work together to decide how the enterprise builds customer loyalty. Trust can effectively reduce customers' perceived uncertainty and risk and increase their sense of control over the online purchase process, thus improving customer loyalty (Mofokeng, 2023). Compared with trust in this research, perceived usefulness plays a small role in customer loyalty. However, it also effectively proves that improving customers' perception of the enterprise and its related products and services is a meaningful way to improve customer loyalty effectively (Naidoo &

Leonard, 2007). Customers generally show high expectations for mobile live-streaming sales because of the real-time and convenient service (Lee et al., 2023). However, due to the limitations of intelligent mobile terminals and constantly changing customer situations, customers' online purchasing experience of the mobile live-streaming platform is often greatly affected (Lo et al., 2022). Therefore, if enterprises can make customers obtain better product cognition and purchasing experience, it will significantly affect customers' evaluation of the enterprise and its mobile live-streaming platform, thus determining their loyalty (Ye et al., 2023). In other words, if the customer purchasing experience is poor, the customer will quickly switch to other purchasing channels, thus resulting in the loss of market share of the enterprise. Therefore, enterprises need to improve the experience of customers (perceived usefulness and trust) by improving the information quality, service quality, and system quality of mobile live-streaming platforms to enhance corporate customers' loyalty.

Conclusion

This paper has displayed how important the mobile live-streaming marketing platform and enterprise operation affecting customer loyalty, leading to the success of executing the marketing strategy and surviving in the fierce competition. Especially the level of system quality (i.e., how a platform is reliable with its organized interface and quick response time); perceived usefulness (i.e., how the platform increases customers' purchasing efficiency and life and work quality); and trust that the enterprise and its chosen platform has and perceived by the customers (i.e., if the enterprise has the knowledge and ability to solve the operation problem to complete the tasks or not), have positive and direct relationships with customer loyalty. Moreover, the enterprise can also increase customer loyalty through those indirect effects, such as increasing the information quality (i.e., the information provided by the enterprise and shown on the platform is what customers need, accurate, and complete), and service quality (i.e., the service provided by the enterprise through the platform is timely, personalized, and professional).

However, there are also contains some limitations. Those guidelines are created based on this paper's results from conducting a questionnaire survey, which includes random sampling errors and may not reflect the population's attitude and opinions. Therefore, the guidelines must be executed to ensure their feasibility and to

be accommodated to fit the enterprise/organization's strategy. Nonetheless, the findings are still helpful and contribute to further understanding the relationship between the mobile live-streaming marketing platform and its operation and customer loyalty.

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