



Development and Validation of the Sufficiency Living Wage Scale for Workers in Thailand

Dusadee Yoelao

Behavioral Science Research Institute, Srinakharinwirot University, Thailand

*Piyada Sombatwattana**

Behavioral Science Research Institute, Srinakharinwirot University, Thailand

Kanu Priya Mohan

Behavioral Science Research Institute, Srinakharinwirot University, Thailand

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Abstract

In the recent years, the *living wage* agenda has been promoted due to its socio-economic benefits for workers and overall economy. This research initiative examines how Thai workers integrate *living wage* with Thailand's "Sufficiency Economy Philosophy" (SEP); with the emerging concept termed as "Sufficiency Living Wage" (SLW). Specifically, this paper showcases the development of the SLW instrument through a mixed-method research design. Two research objectives were formulated; first to develop a scale to measure the SLW, and second to examine the factor structure of this scale. The concept of SLW emerged through qualitative research; followed by quantitative development of the SLW scale with 22-items measured on a 5-point Likert scale. Furthermore, data was collected from 428 workers in Thailand. Exploratory factor analysis indicated three factors with high reliability; that were termed as "perceived psychological utility", "moderate consumption" and "living with self-immunity". This research confirms that the SLW scale has good psychometric properties with high overall internal consistency. Implications of the SLW scale are discussed for future research, and applications at workplace and policy levels are also presented, especially for exploring the impact on the quality of life of workers and sustainable development.

Keywords: Living Wage, Sufficiency Economy Philosophy, Thailand, scale construction and testing, exploratory factor analysis.

JEL Classifications: D23, D91, E24, O35

* **Corresponding author:** Srinakharinwirot University, Bangkok, Thailand 10110. E-mail: piyada@gs.wu.ac.th.

1. Introduction

As researchers and economists work along with policy makers to address inequalities and find ways to promote sustainable development, in Thailand a group of researchers sought to examine *living wage* from the specific philosophical view of the *Sufficiency Economy Philosophy* that is rooted in the socio-cultural and economic context of the country. Through a qualitative research (Yoelao, Mohan, & Sombatwattana, 2019) the concept of “Sufficiency Living Wage” (SLW) was developed. The SLW reflects how minimum wage earners integrate the concept of *living wage* with the *Sufficiency Economy Philosophy* (SEP), which was adopted by Thai policy makers and government since late 1990’s. The SEP emerged from the speeches of the late king of Thailand, His Majesty King Bhumibol Adulyadej, at the time when Thailand experienced financial crises of 1997. The SEP promoted a “middle path” for individuals, families and communities (Kantabura, 2006); and later on, since 2000-2006 it was integrated in Thailand’s national policies of development (Mongsawad & Thongpakde, 2016). Subsequently, it was also linked to sustainable development goals of the United Nations (Wibulswasdi, Piboolsravut, & Pootrakool, 2012).

Taking into account the significance of the SEP in Thailand, the researchers sought to explore the meaning of *living wage* when integrated with the SEP by Thai workers. The resulting concept emerged from qualitative research and was termed as SLW. Furthermore, the researchers aimed to construct a research instrument to measure the SLW. Thus, this research paper has two main research objectives- firstly to develop the items for the SLW scale from the perspective of Thai workers; and secondly to examine the factor structure of SLW.

This research paper has been divided into four main parts- literature review, methods, results, and finally discussion and conclusion.

2. Literature Review

In this section we first present the significance of *living wage* and its linkages to the sustainable development goals; then, the *Sufficiency Economy Philosophy* and its linkages to the sustainable development in Thailand; and end with the conceptual underpinnings of the concept of SLW.

2.1 Sustainable Development Goals and the Living Wage in the context of Thailand

In 2015, the United Nations (2016) adopted the 17 Sustainable Development Goals (SDGs) to steer the development of the world in an inclusive manner and urged all nations to achieve these by 2030. This research, with its focus on *living wage*, specifically links to at least three goals- SDG1 (reducing poverty), SDG 8 (decent work and economic growth), and SDG 10 (reducing inequalities) (The Living Income, 2018). By working towards these goals, national governments aim to provide decent jobs for their citizens, along with ensuring adequate wages. Many countries have embraced the *minimum wage* policies across the world, including Thailand, which is the context of the current research.

Across various nations, a minimum wage policy sets the standard of pay to ensure workers basic sustenance, and can be effective if brought about through social dialogue and partnership as urged by the International Labor Organization (ILO) (Minimum wages: an

introduction, 2019). As stated in the report by ILO, the minimum wages have been set by 90% of the member states but still the compliance needs careful monitoring (Minimum wage policy guide: A summary, 2017). Despite having adopted the minimum wage policy since 1972, Thailand struggles to reduce the economic inequalities and uplift the wellbeing of workers (Kunadilokkamon et al., 2014; Lathapipat & Poggi, 2016; Nakaew, 2015; Paitoonpong, Akkarakul, & Sukaraji, 2005; Vonkglam, Thuvanuti, & Panirindra, 2017). Over the last decades, the concept of “living wage” emerged to highlight the deficit of minimum wages in terms of elevating the lives of the families of the wage earners. The basic concept of living wage was built on the *capability approach* of noble prize winner economist, Amartya Sen which focused on improving people’s capability and substantive freedoms as opposed to utilitarian or resource-based approaches. Sen highlighted that an acceptable level of basic income should allow for achieving at least the minimally accepted capability levels (Sen, 1993). The *capability approach* has been researched across several disciplines, showing its significant positive impact on various individual outcomes (Sen, 1989), especially the plural or the multidimensional aspects of wellbeing according to Robeyns (2005). Incorporating this, many researchers have endeavored to provide a formal definition and measurement of a *living wage* as a sustainable answer to move the minimum wage earners to live a better quality of life (Anker, 2011). Further, as explained by Parker Arrowsmith, Fells, and Prowse (2016), the need for *living wage* entails “a basic income that provides more than mere subsistence, enabling participation in society and some scope for workers and their families to insure against unforeseen shock”. Furthermore, the living wage policy, if adopted by a country could have an impact on the achievement of the UN’s SDGs as pointed out by a group of researchers in New Zealand (Haar et al., 2018).

The theoretical foundation of this research is based on the focus of *living wage* from a “humanitarian work psychology” perspective, wherein researchers highlighted its value as a “springboard” of capability that could enhance the well-being of the workers and also their families (Carr et al., 2012; Carr, Parker, Arrowsmith, Watters, & Jones, 2016). The current research is rooted in the context of Thailand, where the researchers examined how minimum wage workers could integrate their perception of a *living wage* with the *Sufficiency Economy Philosophy* (SEP) to develop a unique concept of *sufficiency living wage* (SLW). The next section reviews the SEP and its contribution to Thailand’s sustainable development goals.

2.2 The Research Context: Thailand and the “Sufficiency Economy Philosophy”

Thailand is a developing nation in South-east Asia. A unique contribution that this research sought was that it aimed to empirically measure the emerging concept of “Sufficiency Living Wage” (SLW), which reflects the integration of the concept of *living wage* within the framework of the “Sufficiency Economy Philosophy” (SEP), given by the late King Bhumibhol of Thailand in 1997. The SEP has provided a guiding framework of balanced and sustainable living since 1997 (Wibulswasdi, Piboolsravut, & Pootrakool, 2012), and has influenced the Thai way of life profoundly. The SEP has three pillars or principles, *moderation*, *reasonableness*, and *self-immunity*; and two conditions- morality and knowledge. The SEP emphasizes that if the Thai people followed this “middle path” (based on the 3 pillars) for their everyday living and consumption, it would lead Thailand towards economic prosperity. Researchers note that this philosophy can be adapted at an individual and community level, to organizational and national policy levels (Kantabura, 2007; Mongsawad, 2010). Hence, over the years the SEP has also been integrated with the national development policies such as the current 12th National Economics and Social Development

Plan (2017-2021) (Royal Thai Government, October 28, 2016). Mongswad and Thongpakde (2016), quoting the National Economic and Social Development Board (2007), explained that the SEP provides a path of resilience and sustainable development for Thailand.

The SEP has another valuable contribution towards Thailand's achievement of the United Nations' sustainable goals since the philosophy provides a "unique framework for sustainable development" as highlighted in a publication by the Ministry of Foreign Affairs of the Kingdom of Thailand (2016). It is further explained that the SEP is not just a philosophy but has been integrated as a decision-making framework for sustainable living.

In the following section, we examine how both the conceptual frameworks of living wage and SEP lead to the development of the SLW.

2.3 The Conceptual Underpinnings of the Research

Considering the significance of SEP from the Thai context, the research team took the initiative to first explore the meaning of "living wage" for the Thai minimum wage workers, and then understand how the workers interpret living wage if they examine it in concurrence with the SEP.

Through a qualitative research, it was found that the meaning of living wage expressed by the workers was an amount which was more than the minimum wages they earned presently. More importantly, this perceived increased amount could help them to satisfy their needs for supporting their families and future needs. Furthermore, when asked to examine this amount or the living wage from the lens of the philosophy of the SEP, the workers shared that this was "sufficient" and could be spent with moderation based on "knowledgeable consumption" (Yoelao et al., 2019). The integration of the two concepts resulted in a new psychological concept of "Sufficiency Living Wage" (SLW), which could be understood in terms of its two dimensions- "sufficiency of wages" (measured in terms of cognitive and behavioral components), and "psychological utility" (measured in terms of cognitive and affective components). The three components - cognitive, conative, and affective- are grounded in the work of early researchers such as Rosenberg and Hovland (1960) who examined attitudes using these. These three components have also been reviewed in the field of psychology (Hilgard, 1980) and from social psychology perspectives (Banaji & Heiphetz, 2010), and its applications can be found as such also in the work context (Nelson & Quick, 2012; Robbins & Judge, 2012, Fabrigar, MacDonald, & Wegener, 2005). Thus, it can be summarized that the emerging concept of SLW is a psychological concept with cognitive, conative/ behavioral, and affective dimensions.

After the initial findings from the qualitative research, the researchers subsequently aimed to evaluate the theoretical/conceptual and practical value of the new concept of SLW. Hence, the next phase of research was planned to develop an instrument to measure the SLW so that it could be examined in the context of different workplaces in Thailand. Therefore, the researchers planned to develop an instrument for measuring SLW, grounded in a systematic research design for scale construction and development, which was adapted from the guidelines provided by various researchers (Hinkin, Tracey, & Enz, 1997; Furr, 2011).

3. Research Methodology

The present study adopted a three-phases of scale development to develop the preliminary items and test the scale for measuring SLW from the context of workers in Thailand. The research team got approval and ethics clearance from the university for the research project (ref: SWUEC 030/60E, dated 13 June 2017). Ethical procedures of informed consent were observed during the data collection process. The following sections share the details about the development of the scale, the measures, and the participants.

3.1 Scale Development

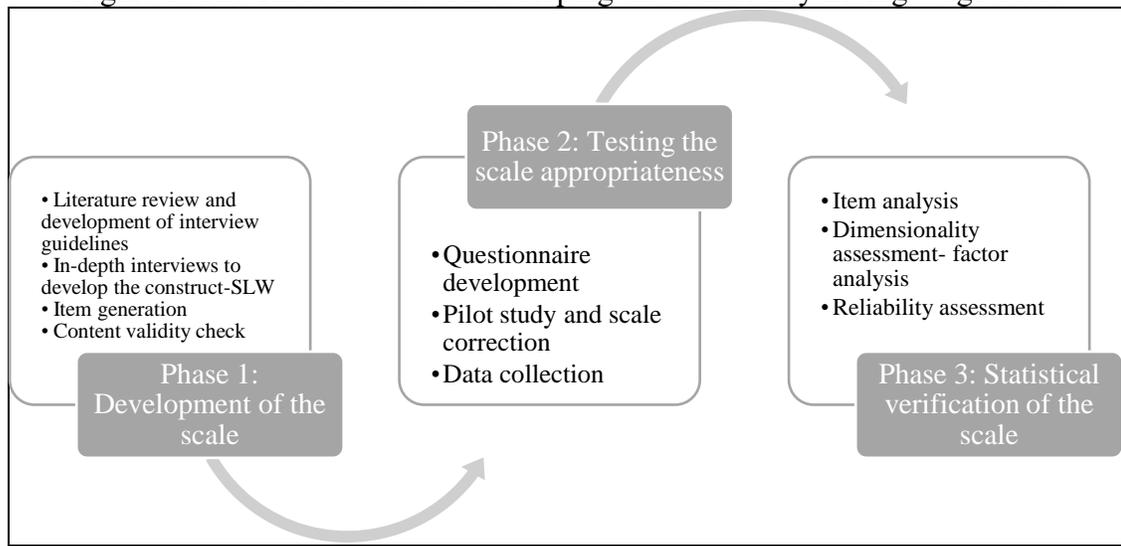
The development of the SLW scale was based on a systematic scientific process. As mentioned by Gidron (2013), the development of a scale is the first important step in the assessment of a construct. There are no explicit rules for scale development, but each step should be clearly elucidated to make it reliable and valid (Gidron, 2013).

Following the guidelines of scale development given by various academics (Hinkin et al., 1997; Slavec & Drnovsek, 2012; Boateng, Neilands, Frongillo, Melgar-Quiñonez, & Young, 2018), the researchers created three phases of SLW scale development, which entailed 10 steps for the development of the scale. This systematic process is summarized and depicted in Figure 1.

The first phase included 4 steps:

- 1) Literature review of the relevant content.
- 2) Data collection from 12 key informants (blue-collar workers in an SEP organization) using in-depth interviews, conducted in Thai language. The data was analyzed through thematic analysis, and two themes about the “sufficiency living wage” (SLW) emerged- the “sufficiency of wages”, and the “psychological utility of wages” (Yoelao et al., 2019).
- 3) Items for the SLW scale were generated from both the content of the interviews and literature review. A total of 23 items were written in Thai language.
- 4) The items were checked for their content validation by 2 experts in the field of behavior science. Keeping in view that the new concept of SLW had psychological underpinnings and, also, that it was related to work domain, the scale was examined by experts from psychology and management. The expert from psychology was also an expert in test construction in behavioral science. Thus, the researchers took systematic efforts to adhere to the best practices of content validity that require “evidence of content relevance, and technical quality”, as suggested by Boateng et al. (2018).

Figure 1: The Three Phases of Developing the Sufficiency Living Wage Scale



Source: Authors' explains.

The second phase focused on checking the appropriateness of the SLW scale, which included 3 main steps:

- 1) A questionnaire in Thai language was developed for measuring SLW and this consisted of 23 items.
- 2) A pilot test of the scale was conducted with selected participants (n=41), who worked in Thai organizations. Further testing was done by using the technique of cognitive interviews (n=4) with blue collar workers, which is useful for checking the content from the context of the target population as highlighted by Boateng et al. (2018). The feedback was discussed by the three researchers, the items were corrected, and the SLW scale was finalized.
- 3) The final step included sample determination and data collection from the target sample (n=428). The sample size of the study was enough for the analyses, with 428 participants and a 22-items survey, which meets the recommended 10:1 participant per item ratio (Hair et al., 2010).

The third phase of the research included three main steps -

- 1) Item analysis was conducted after missing data analysis was done. There were some missing values in the data. After list wise deletion for data analysis, the total sample was 413. The analysis of item-total correlation of 23 items showed that item 9 should be deleted due to low coefficient of discrimination that was below .20 (Field, 2005). Hence, only 22 items were finally selected for the scale.
- 2) Exploratory factor analysis was conducted to examine the dimensions of the SLW scale.
- 3) The last step was reliability analysis of the scale using Cronbach's alpha.

3.2 The Measures

Along with the demographic information, data was collected using the newly developed *Sufficiency Living Wage* (SLW) scale, which is a 22-item, self-report scale. The scale was constructed based on the 2 themes that emerged from qualitative construction of SLW- the “sufficiency of wages” and the “psychological utility of wages” (Yoelao et al., 2019). The items were measured on a 5-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

3.3 Participants

To test the psychometric properties of the SLW scale, data was collected from 428 workers (both white-collar and blue-collar) from eleven private organizations that operated in Thailand. They comprised of firms from two kinds of industries: tourism and production; most of them were in tourism industry. These organizations were located in Bangkok and provinces in the central region of Thailand, such as Nakorn Pathom, Nakorn Nayok, Samutsakorn, Chonburi, and Ayutthaya. The participants were predominantly blue-collar workers (58.9%), females (62.4%), aged between 20-30 years old (33.4%). Most were permanent workers (75.7%), with the length of work duration for the current job from 4-6 years (29.9%), total work experience of over 10 years (26.2%), and hold a bachelor’s degree (31.1%). In terms of their family structure, a large number of participants (48.8%) had two generations living together in a household, and some (25.7%) had at least 1 one person who needs taken care of in the family. The demographic details of the samples are shown in Table 1.

Table 1: Demographic characteristics of the participants (n = 428)

Characteristics	n (%)
Kind of workers	
White collar	176 (41.1)
Blue collar	252 (58.9)
Gender	
Male	140 (32.7)
Female	267 (62.4)
Other	6 (1.4)
No answer	15 (3.5)
Age	
20 – 30 years old	143 (33.4)
31 – 40 years old	137 (32.0)
41 – 50 years old	104 (24.3)
51 – 60 years old	33 (7.7)
Up to 60 years old	4 (0.9)
No answer	7 (1.6)
Kind of job	
Temporary worker	51 (11.9)
Permanent worker	324 (75.7)
Others	5 (1.2)
No answer	48 (11.2)
Length of work duration for current job	
Less than 1 year	79 (18.5)
1 – 3 years	128 (29.9)

Characteristics	n (%)
4 – 6 years	89 (20.8)
7 – 9 years	39 (9.1)
Up to 10 years	70 (16.4)
No answer	23 (5.4)
Length of work duration from the beginning	
Less than 1 year	45(10.5)
1 – 3 years	67 (15.7)
4 – 6 years	89 (20.8)
7 – 9 years	48 (11.2)
Up to 10 years	112 (26.2)
No answer	67 (15.7)
Education level	
Lower than primary	6 (1.4)
Primary	57 (13.3)
Secondary	124 (29.0)
Diploma	63 (14.7)
Bachelor	133 (31.1)
Higher than Bachelor	41 (9.6)
No answer	4 (0.9)
Household living categories	
Alone	104 (24.3)
2 generations live together	209 (48.8)
More than 3 generations live together	81 (18.9)
Skip generations living	16 (3.7)
No answer	18 (4.2)
No. of dependents	
None	12 (2.8)
1 person	110 (25.7)
2 persons	88 (20.6)
3 persons	107 (25.0)
More than 3 persons	107 (25.0)
No answer	4 (0.9)

Source: Authors' estimations.

4. Research Findings

The research findings are presented in two parts to answer the research objectives. The first part shows the descriptive analysis and the correlation matrix of the items. The second part shows exploratory factor analysis.

4.1 Item Descriptive Analysis

A total of 22 original items were examined from the sample (n=413); their mean scores ranged from 3.32 to 4.30, wherein the maximum score was 5. The standard deviation of items ranged from .67 to 1.16. Skewness was in the range -.38 to -1.29, and kurtosis was in the range from -.036 to 2.18, which did not show any serious challenges for using the Pearson correlation coefficient for factor analysis (Curran et al., 1996). The Pearson correlation coefficients among most of the 22 items were significant and higher than .30. The reliability of 22 items was .89, well above .70 cutoffs. These statistics showed appropriateness of factor analysis.

4.2 Exploratory Factor Analysis

Evaluation of the correlation matrix which showed a Bartlett's test of sphericity was significant ($\chi^2 = 3167.72, p < .001$) suggested that the correlation matrix was not identity matrix. The Kaiser-Meyer-Olkin measure of sampling adequacy was meritorious at .87, adequate to proceed with the EFA (Kaiser, 1974). Principal axis factoring was used to extracted common factors as suggested by most methodologists when the purpose was to identify latent constructs responsible for the variation of measured variables (Watkins, 2018).

Applying the principal axis factoring resulted in identifying 5 factors with eigenvalues above 1, but we limited factors to 3 factors from the evidence of scree plot and from our thematic results from our previous research (Yoelao et al., 2019) that revealed at least 2 themes.

Table 2 showcases the extraction loading based on the common factor analysis. The final model included three factors with 22 items and explained 38.50% of the total survey variance before rotation. Table 4 displays the variance accounted for after extraction. The model does not account for all variance; thus, the reproduced matrix was used to create the extracted eigenvalue. The oblique rotation was performed as suggested by measurement specialists who highlight that in social sciences, everything measured were correlated in some degree (Meehl, 1990). The factor rotation resulted in 7 items loading on the first factor, 9 items loading on the second factor, and 6 items loading on the third factor, with factor loadings well above .30 as recommended (see Table 3), which suggests these items could be described by the corresponding factors (Field, 2005; Stevens 1992). The rotation gave 2 factor loadings: pattern and structural coefficients. The pattern coefficients were interpreted as partial regression coefficients. In contrast, structural coefficients were interpreted as correlation between common factors and observed variables and were used to name the factors. From the factor loadings shown in Table 3, the simple structure was observed (Thurstone, 1947).

Table 2: Extraction loading and variance in a three-factor model

Factor	Extraction sums of squared loadings			Rotation sums of squared loadings total
	Total value	Variance %	Cumulative variance %	
1	5.87	26.36	26.68	4.95
2	1.64	7.49	34.18	3.63
3	.95	4.32	38.50	3.77

Source: Authors' estimations.

Evaluation of the structure coefficient showed that the first factor appears to contain items referring to psychological utilities of the wage (e.g. *My wage is enough for taking care of my parents every month; The wage I earn makes me proud of myself*). Items loading on the second factor concerned the moderation concept of the SEP (e.g. *I spend only as much as I have; I will not spend more than what I have*). Items loading on the third factor comprised wording concerned with the self-immunity concept of the philosophy (e.g. *I believe that I have enough money for the security of my family*). The three factors were named "perceived psychological utility", "moderate consumption" and "living with self-immunity". Cronbach's

alpha coefficient for the three factors was .88, .79, and .76, respectively. The factor correlations were .46 between factor1 and factor 3; .34 between factor 2 and factor 3; and .35 between factor1 and factor 2.

Table 3: Factor loadings and component communalities for items of the SLW scale

Item content	Factor			Descriptive	
	1	2	3	M	SD
22. My wage is enough for taking care of my parents every month.	.79 (.78)	.07 (.33)	-.07 (.31)	3.95	.04
23. I am content that I could take my family to vacation using my wages.	.69 (.68)	.00 (.24)	-.03 (.29)	3.92	.04
17. I am glad that I have received wages that makes my family and me happy.	.64 (.69)	-.03 (.23)	.14 (.42)	4.15	.03
16. I am glad that I have money to support my parents every month.	.61 (.68)	.10 (.34)	.06 (.38)	4.02	.04
21. I am content that I could make merit according to my religion or give money for charity.	.58 (.59)	.05 (.25)	-.01 (.27)	4.00	.03
18. The wages I receive make my family and I happy.	.56 (.68)	-.02 (.26)	.28 (.53)	3.95	.04
20. The wages I earn make me feel proud of myself.	.51 (.63)	-.01 (.25)	.26 (.50)	3.80	.04
<i>Subscale: Perceived psychological utility</i>	Alpha = .87				
5. I spend only as much as I have; I will not spend more than what I have.	.10 (.29)	.66 (.67)	-.08 (.18)	4.03	.03
7. I have zero debt.	-.04 (.15)	.61 (.58)	-.04 (.14)	3.86	.05
8. I do not purchase according to the current trend, even though all my friends have those stuff.	.03 (.15)	.52 (.49)	-.13 (.05)	3.93	.04
1. I believe in not spending unnecessarily.	.03 (.25)	.50 (.54)	.09 (.28)	4.10	.04
6. Before spending on anything, I will always consider the long-term value of it.	.13 (.31)	.49 (.54)	.01 (.24)	4.07	.03
2. I save some money every month.	-.03 (.24)	.48 (.54)	.22 (.36)	4.00	.04
3. I believe in saving money first, and then the rest is for spending.	-.10 (.18)	.47 (.52)	.26 (.37)	3.91	.04
4. I try to D.I.Y. instead of buying things.	-.10 (.18)	.44 (.53)	.29 (.39)	3.47	.05
10. I believe in the saying “it is a blessing to have no debt”.	.11 (.23)	.43 (.44)	-.07 (.12)	4.30	.04
<i>Subscale: Moderate consumption</i>	Alpha = .78				
15. People around me usually say that I receive suitable amount of wage.	.07 (.36)	-.07 (.17)	.68 (.69)	3.59	.04
13. I believe that I have enough money for future spending on necessary goods.	-.00 (.28)	.04 (.24)	.58 (.59)	3.26	.05

Item content	Factor			Descriptive	
	1	2	3	M	SD
14. I have invested some money for the security of my family and children.	.11 (.40)	.12 (.33)	.52 (.62)	3.67	.04
19. I am willing to tell others about the amount of my wages.	.18 (.36)	-.03 (.17)	.41 (.49)	3.32	.05
11. I believe that I have received the wage according to my ability.	.21 (.41)	.05 (.26)	.39 (.51)	3.84	.04
12. I have enough money to buy consumer goods according to my necessity and in suitable quantity.	.18 (.41)	.13 (.33)	.39 (.52)	3.89	.04
<i>Subscale: Living with self-immunity</i>	Alpha = .76				

Note: Data for factor loadings come from rotated pattern matrix, the number in the parenthesis is structural coefficient matrix.

Source: Authors' estimations.

5. Discussion and Conclusion

5.1 Main Findings and Discussion

As shown from the results of this research, a 22 items scale was developed to measure the “Sufficiency Living Wage” (SLW), a concept developed from the perceived integration of living wage with the Sufficiency Economy Philosophy (SEP), in the context of workers in Thailand. A systematic procedure of scale development was followed based on previous researchers' guidelines (Hinkin et al., 1997; Slavec & Drnovsek, 2012; Boateng et al., 2018); and the new scale items adequately matched the requirements of test validity and reliability. According to Nunnally (1978), the minimum level of acceptable reliability for a scale should be .70, which the SLW scale was higher ($\alpha = .87$).

Furthermore, exploratory factor analysis of the SLW scale was conducted, and three distinct factors were identified. Additional analyses showed high internal reliability (using Cronbach's coefficient alpha) for all the three factors of the SLW scale- “perceived psychological utility” ($\alpha=.87$); “moderate consumption” ($\alpha=.78$); and “living with self-immunity” ($\alpha=.76$). Each factor was examined and discussed from theoretical and research perspectives.

In previous research, there is supporting evidence for the *factor 1- perceived psychological utility* of wages earned. For instance, in a research in Thailand, Promsuk (2013) found that male workers tend to agree that they should work overtime in order to increase their income. The same research also found that female workers reported that their wage was lower than their male counterpart, and also not enough for living. Such research verified that workers perceive the economic impact of wage utility. However, as found in this research, the *factor 1* reveals more than just the financial impact of an increased wage or the living wage. The psychological utility is also highlighted as the workers perceive that the SLW could make them and their family “happy”, make them “proud” of themselves, and etc.

The findings of this research in terms of the other two factors of “moderate consumption” and “living with self-immunity” show some perceived linkages to the three pillars of the Sufficiency Economy Philosophy (SEP)- *moderation, reasonableness, and self-immunity*. The impact of SEP on the behavior of Thai workers has found support in a research by Kaewruangsri, Niyomdecha, Heemhem, Baribhan, and Noknoi (2018), who

investigated the behavior of oil rig workers based on the SEP, and found statistically significant relationships between fair and sufficient wage and the behavior based on SEP, both in terms of moderation and immunity.

In a meta-analysis of SEP related research, Barua and Tejativaddhana (2019) highlighted that sufficiency thinking is reflective of a balance between various human dimensions, such as physical needs, psychological functioning, and also social-environmental influences. From the academic perspectives of psychology and behavioral science, researchers have highlighted the multi-dimensionality of the understanding human psychology in terms of cognitive-affective-behavioral domains that can impact work behavior (Rosenberg & Hovland, 1960; Hilgard, 1980; Robbins & Judge, 2012). Interestingly, the *factor 1* of the SLW scale- “perceived psychological utility” is related to both affective and cognitive evaluations of the *living wage*, while it has links to the behavioral domain also. The *factor 2* of the SLW scale- “moderate consumption” and also the *factor 3*- “living with self-immunity”, reveal the cognitive, affective, and behavioral dimensions of SLW. These findings are supported by the researchers who examined behavior based on the SEP. For instance, Barua and Tejativaddhana (2019) quoting Puntasen (page 197) suggested that sufficiency thinking could be indicative of diverse cognitive aspects and could result in various levels of behavioral outcomes, such as self-reliance, resilience, and self-immunity.

An understanding of the multi-dimensionality of SLW based on the Sufficiency Economy Philosophy (SEP) can perhaps be gained from the work of Wibulswasdi, et al., (2012) who stated that the SEP is a “way of life” that can be applied to human development by cultivating the “right mindset”. If we apply this to the meaning of the SLW, we can perhaps explain that while an individual needs living wage to promote their quality of life and provide for more than subsistence living, as highlighted by Parker et al., (2016), yet within the SEP’s principle of moderation and reasonableness they know what is sufficient for them. Thus, the “moderate consumption” explains the psychological perception of using or consuming the objective *living wage* when examined from the lens of the SEP.

The *factor 3*- “living with self-immunity” of the SLW shows the perceived linkages of the 3rd pillar of the SEP- “self-immunity” when merged with the living wage. The emerging factor explains utilization of wages through which a person can also keep some money for savings or financial immunity. On the other hand, the utilization of the SLW can also be supported from the lens of behavioral economics if we look at the work of Yao, Parker, Arrowsmith, and Carr (2017) who explained that the capability approach applied to living wages allows an individual to “choose and achieve” what he/she desires to do with their wages.

Before we end the discussion, the researchers would like to summarize that the concept of SLW was developed through a qualitative exploration using descriptive phenomenology. Explaining transcendental (descriptive) phenomenology, Neubauer, Witkop and Varpi (2019) said that Edmund Husserl was the pioneer of this field of research and he explained the “lived experience” as the inner/ subjective experience of an object or a phenomena as perceived by the individual’s consciousness. Thus, the workers in Thailand could intuitively merge the concept of SEP with living wage since they have had experience of understanding the SEP over the years. From the research, it emerges that the meaning of SLW is not only limited to the positive socio-economic value of a living wage (Parker et al., 2016) but is also connected to an inner experience of the workers that has positive inner/ subjective outcomes such as pride, self-esteem, contentment and happiness. Hence, the

concept of SLW could be significance from various behavioral science perspectives such as psychological, social, and economic to name a few.

5.2 Limitations of research

This research was limited in its scope as it only examined the individual perspective of the wage earner. Furthermore, SEP is a philosophy and though research has been done to evaluate its impact on work behavior, it may be difficult to directly measure it as a work attribute. Another limitation is that the data was collected mainly from Bangkok, the capital of Thailand, and nearby provinces, and hence the data may not reflect the perspectives of workers in other regions.

This research was also limited in its scope as it tested the SLW scale only with the private sector workers in Thailand. It is recommended that the SLW scale be tested in the context of larger samples and diverse workplaces in Thailand.

5.3 Conclusion and policy implications

The main contribution of this research was to develop and test a new scale for “sufficiency living wage” (SLW), a concept that emerged from the perspective of Thai workers when they examined living wage in concurrence with the application of the Sufficiency Economy Philosophy. The emerging SLW scale is multi-dimensional, with a three factors structure, and has shown good psychometric properties.

It is recommended that the SLW scale should be examined further for empirical evaluation of its impact on work related outcomes (e.g. job satisfaction, productivity, etc.), and also other life outcomes (e.g. quality of life and overall satisfaction with life) among wider samples. If the quantitative findings verify the positive impact of SLW, the scale could be of value not only to researchers but also to policy makers in Thailand for exploring the linkages between living wage, quality of life of workers, and sustainability of businesses, more so in the challenging socio-economic situation that has risen due to the COVID-19 health crisis.

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