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Validating Instrument for Measuring Lending Institutions' Practice in The Consumers' Over-Indebtedness Study Context

By

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Abstract

This paper presents the validation of an instrument to measure the Lending Institutions' Practice (LIP) from the use of consumer and household over-indebtedness context. Eight LIP items had been adapted from previous studies and had gone thru the validating process, involving content and construct validity, including pre-testing, Pearson Correlation, convergent, and discriminant validity. Based on the sample of N=106 online questionnaires completed by the individual representative of the over-indebted borrowers, one item was deleted due to the low factor loading, and the other seven LIP items have passed the validity testing. Regarding the instrument's reliability, all seven questions presented reliability as the values $\alpha = 0.857$. Thus, the instrument demonstrated construct validity and reliability and can be used to evaluate LIP in future studies.

Keywords: Validation instruments, Exploratory Factor Analysis (EFA), lending institutions, consumer's studies, over-indebtedness

Introduction

Lending institutions have become one of the socialization agents in today's environment by looking at the current situation nowadays. It is clear that lending and financial institutions keep on promoting interesting loan packages to the public, with promises of faster loan processing and approval compared to earlier years before. In addition, advertisements by lending institutions make people eager to apply for new personal loans. For example, an advertisement by one of the financial institutions in Malaysia states: "Combine all your loan with only one loan". The tagline provides a hint for citizens to take advantage of the loan offered, and make plans to close their other credit commitments (such as credit cards) with the new loan. Moreover, some financial institutions give maximum credit limit for personal financing of up to RM 300,000, while others offer 100% home loan for their customers. All of these contribute to the high demand for loans, leading to high commitment and over-indebtedness problem. This is what happened in Cambodia (Liv, 2013) and Thailand (Beyene & Waibel, 2018; Chichaibelu & Waibel, 2017), where the researchers have established an association between multiple borrowing and high indebtedness.

In the studies of over-indebtedness among micro-financers, the idea that over-indebtedness may naturally occur through market cycles is well-supported. In retail credit markets, over-indebtedness tends to naturally increase alongside competition and market saturation (Gabor & Brooks, 2017; Schicks, 2013). While microfinance has been more resistant to such cycles in the past, the more commercialized it becomes, the more prone it is to crisis (Gabor & Brooks, 2017).

One of the reasons for rising household debts is the ease of borrowing from a growing number of lending institutions. Financial institutions are criticized for their indiscriminate marketing practices of offering credit to even young, low-income consumers who are not able to repay their balances (Chichaibelu & Waibel, 2017). Moreover, it is said that lenders often offer a product that is inappropriate for a borrower's condition, while the lack of transparency can also create future problems for the borrower (Bernards, 2021). Financial institutions that tailor their communication and product advertisement to turn consumers' heuristic-based judgments to their favor sometimes lead consumers to bad financial decisions regarding debt accumulation and repayment (Srivalosakul et al., 2018).

While the factors involved in financial institutions in relation to the problem of debt have been widely discussed in the literature, previous studies have paid little attention to several critical questions concerning modern market economies and how these impact consumer behaviours. Moreover, most of the studies on lending institutions used objective measures (i.e.; the effect of interest rate on loan demand) to access the effect of lending institutions practices on indebtedness. There is, therefore, no solid measurement for the scale of lending institution practice in the literature.

Based on the above arguments, it is notable that lending institutions do play a role in consumers' indebtedness. Yet, there is no specific measurement for this variable that can be applied to represent the impact of lending institutions' factors on consumers' behaviour based on subjective measures. How can one examine the effect of lending institutions on consumer behaviour without having a specific measurement for it? With that question and gap, thus we come out with this research paper where the objective of this study is to validate the lending institution's practice instruments that specifically relate to consumer's over-indebtedness study context. It is hope that the study could give benefits for future researcher in exploring more on the effect of lending institutions' practice towards consumers' behaviour, especially in household indebtedness study context.

Literature Review

The Effect of Lending Institutions Towards Consumers Indebtedness

One of the reasons for rising household debts is the ease of borrowing from a growing number of lending institutions. Financial institutions are criticised for their indiscriminate marketing practices of offering credit to even young, low-income consumers who are not able to repay their balances (Chichaibelu & Waibel, 2017). Moreover, it is said that lenders often offer a product which is inappropriate to a borrower's condition, while the lack of transparency can also create future problems for the borrower (Tailab, 2020). Financial institutions that tailor their communication and product advertisement to turn consumers' heuristic-based judgments to their favour sometimes lead consumers to bad financial decisions regarding debt accumulation and repayment (Van Der Cruijsen et al., 2016).

Behavioural economics theories suggest that problems of high indebtedness and multiple borrowing arise from the present biased and time-inconsistent decisions of borrowers.

Arnold and Booker (2013) suggest that "naive present-biased" borrowers who are over-indebted and have highly discounted the future relative to their true preferences take on additional loans from moneylenders to keep up with loan repayments to microfinance institutions, thereby further increasing their debt burden. Borrowing from multiple lenders simultaneously increases a borrower's risk of over-indebtedness in both strands of theories, although the effect is reversed.

In the case of Ghana's microfinance borrowers as investigated by Schiks (2014) and Rai et al., (2018), it was found that microfinance institutions can push borrowers beyond their limits if the institutions focus excessively on portfolio growth and utilise aggressive marketing techniques. The study argued that microfinance institutions often offer products that are inappropriate to the borrower's situation, enforce unrealistic instalment schedules, and resist the need to reschedule loan agreements or artificially limit maturities. Micro-lenders also contribute to over-indebtedness through their operating procedures by being lax when evaluating repayment capacity, offering non-transparent terms and conditions, and using coercive collection practices. Because of cognitive limitations, difficulties in resisting temptation and sociological pressures, individuals sometimes make irresponsible borrowing decisions (Gerardi et al., 2013; Schicks, 2011).

Islam et al., (2017) emphasised that one of the antecedents of individual materialism and compulsive buying behaviour is advertising. The pressure for growth among financial institutions had turned them into socialization agents that promote credit facilities to the public, ease loan applications, offer lower rates and other lending methodologies to attract potential customers to apply loans (Gutierrez-Nieto et al., 2017; Raijas et al., 2010). Previous studies also found that credit officers play a role in increasing loan demand among potential borrowers (Bushman et al., 2020). Loan officers aggressively promote higher loan amounts to potential borrowers. Besides that, the officers also do not practice thorough checking on new loan applications as they are more motived by the incentives offered by the lending institutions i.e. they will get bonuses or rewards based on the amount of loans processed under their name.

Besides, loan officers have been proven to have an independent, incremental impact on loan spreads and covenant design that is larger than or comparable to the lending institutions' influence. For example, it has been suggested that distorted financial incentives for lower-level employees such as loan officers and loan originators as well as poor organisational designs have allowed loan officers to use their discretion and judgement to issue poor-quality loans, thus triggering the crisis (Behr et al., 2020).

The influence of loan-volume-based remuneration on loan volume and delinquency rates was investigated by Agarwal and Ben-David (2018). They discovered that when loan officers are compensated based on volume, they produce more loans but lesser loan quality. Cole et al. (2015) conducted a laboratory experiment using data from an Indian bank to investigate how remuneration that promotes loan volume while penalising bad loan performance impacts lending decisions and subsequent loan performance. They discovered that such incentives result in more screening and better loan decisions. Behr et al. (2020) examined non-linear compensation structures that reward loan volume and penalize poor performance, and found that when loan officers are at risk of losing their bonuses, they increase loan prospecting and monitoring and adjust their behaviour more towards the end of the month when bonus payments are approaching.

Moreover, in a study on how automated lending decisions based purely on hard information influence loan officer behaviour when compensation depends on generated loan

volume, it was revealed that loan officers are biased in their assessment of the borrowers' risk so as to increase the pool of clients that are eligible to get credit (Berg et al., 2013) and to allow for higher amounts of approved loans. Such lax evaluation and wrong judgement lead to future loan problems where the borrower becomes unable to pay for the loan commitment. However, several other studies found no significant relationship between loan amount provided by lending institutions and over-indebtedness. A recent study involving microfinance borrowers revealed that the size of the loan amount and cost of borrowing are not significant factors affecting over-indebtedness among microfinance borrowers (Puliyakot, 2020).

Other empirical findings by previous studies also found that lending interest rate has an effect on loan demand. Lending interest rate refers to the cost of holding loans or borrowings from the bank. Hence, lower lending rates cause the demand for household debt to increase. Otherwise, an increase in the interest rate on loans distracts agents from borrowing. Most of the studies argued that lending interest rate plays an essential role in explaining the changes in household debt from the supply side. Extensive empirical findings are in line with the fundamental underpinnings which highlight a negative relationship between interest rate and household debt (Hammad et al., 2016; Loke, 2016). This means that loan demand will drop when the cost of borrowing (loan interest) rises. Nevertheless, some studies found a positive link between these two variables (Catherine et al., 2016; Park & Lee, 2019), while some other studies found no significant effect of interest rate on household debt (Rashid et al., 2017).

Lending Institutions Practice: Definition and Previous Measurements

The term 'lending practice' refers to: the method applied by the lending/financial institutions relating to the pressure on financial institutions to produce growth in exchange for lending; loan allocation and also pressure from loan officers to sell credit products (Anderloni et al., 2012; Gutierrez-Nieto et al., 2017). Naturally, the degree of competition between financial institutions creates pressure on loan officers to expand their portfolios. The structural information deficit created by this situation rules out a complete analysis of a customer's credit-worthiness and can, typically, lead to the selection of "bad" borrowers (Centre for Rural Development, 2015). Instead, loan officers usually tend to persuade existing borrowers to engage in multiple borrowings (also known as overlapping) and take more loans on longer terms (Duvendack et al. 2011). This scenario attracts existing borrowers into taking out more loans, eventually shifting a borrower's status from mild indebtedness to the condition of over-indebtedness.

Lascelles and Mendelson (2012) and Garðarsdottir and Dittmar (2012) directly blame the competitive pressure by financial institutions for causing irresponsible lending and over-indebtedness. Braucher (2006) and Fatoki (2015) highlight the lack of financial regulation, creditors' sophisticated marketing and high-pressure loan collection techniques, all of which cause a high level of borrowing. Another study finds evidence of irresponsible lending practices associated with over-indebtedness via the offering low initial interest rates and higher credit limits (Alleweldt et al., 2013; Kempson, 2002). Low-interest rates and financial deregulation play a role in increasing household over-indebtedness. Consumers are attracted by low-interest offers and create a high demand for the credit (Guérin et al., 2011; Worthington, 2006). Moreover, deregulation and financial innovation have significantly increased the household sector's access to credit. In short, financial innovation has made it much easier for households to borrow against their housing wealth, a factor which has the effect of compounding a high level of indebtedness.

Additionally, as remarked above, the individual's personal environment in the context of over-indebtedness has received less attention in the literature (Disney & Gathergood, 2013;

Gutierrez-Nieto et al., 2017). The growth in financial innovation and financial liberalisation has made consumer access to credits easier while causing financial problems. The tendency to imitate the lifestyles of others also causes many individuals to live beyond their means. Instead of only buying what they need, individuals are now more prone to buying the same thing as others. To sum up, the phenomenon of "Keeping up with the Jones" plus easy access to credit has posed a great impact on the increase in consumer over-indebtedness.

As mentioning before, previous studies pertaining LIP with consumers' indebtedness more directed on the objective measure in assessing its effect. Based on the best from researcher knowledge in time of the current publication, there is no specific measurement scale had been used in assessing the effect of LIP towards consumers indebtedness. As such, two different studies (see Raijas et al. (2010) and Liv (2013)) had taken initiative by pulling the relevance items for LIP. Table 1 represent the instruments item that had been mentioned by previous scholar in explaining the effect of lending institutions' practice (LIP) towards consumer indebtedness.

Raijas et al. (2010) named the LIP as "Easy Access to Lending", and had gathered all the related items from journals represents LIP measurements. Meanwhile, a study done by Liv (2013) summarize the items for LIP that can be applied in testing the LIP effect towards consumer indebtedness. In addition, Gutierrez-Nieto et al. (2017) had adapted all the items from Raijas et al. (2010) and Liv (2013), and categorize it into three items, namely; financial institutions pressure for loan allocation, financial institutions pressure for growing and, loan officers' pressure to sell financial products. However, all of these three items are lack in expressing borrower's point of view, and not well define in measuring the LIP. With the limitations, thus this study tried to validate the existing LIP instruments, as introduced by the mentioning authors.

Table 1. Lending Institutions Practice Measuremnts that had been mention by previous literiture

Author	Constructs
• (Raijas, Lehtinen & Leskinen, 2010)	• Easy access to lending (systematic review, without questionnaires) • Financial institutions pressure to loan allocation • Financial institutions pressure to growing • Loan officers' pressure to sell financing products • Aggressive credit market • Easy access to credit product • Credit from non-financial institutions that offer high interest
• (Liv, 2013)	• Lending institutions (items are from interview session) • It is very easy to get a loan from microfinance institutions. • Loan officers explained all the terms and conditions of the loan to you. • I understood all the terms and conditions of the loan before borrowing. • Microfinance institutions disburse loan in time for me to make investment opportunity. • The duration on loans from microfinance institutions is adequate for me. • I received the loan amount I wanted from the microfinance institutions. • The loan repayment schedule of microfinance institutions is convenient for me. • Microfinance institutions provide fair rescheduling options for borrowers in honest difficulties. • Even when borrowers are late in repaying, the staff of microfinance institutions is polite and respectful during the collection process.
• (Gutierrez-Nieto et al., 2017)	• Financial Institutions Pressure • Financial institutions pressure for loan allocation • Financial institutions pressure for growing • Loan officers' pressure to sell financial products

Methods

Item Generation

We combine the items from (Liv, 2013; Raijas et al., 2010), and had come out with the eight instruments for LIP (refer to Table 2). As the original items are in English while this study was conducted in Malaysia, all the original English versions were translated into Malay based on their intended meaning and then been translated back into English by a professional translator who was only involved for this purpose in the research project. The original English version was then compared with the translated version by the English native speaker and rated for content similarity, which was then the basis for corrections.

Table 2. Lending Institutions' Practice Items Measuremnts

Code	Items
LIP1	It is easy to get a loan from financial institutions.
LIP2	Loan officers explained all the terms and conditions of the loan to me.
LIP3	Financial institutions disburse the loan in time for me in the time needed.
LIP4	The duration on loans given is adequate for me
LIP5	I received the loan amount I wanted from the financial institutions.
LIP6	The loan repayment schedule of financial institutions is convenient for me
LIP7	Financial institutions provide fair rescheduling options for a borrower in honest difficulties.
LIP8	The interest rate offered by the bank is affordable

Instruments Validity

For the validity of the instruments, this study employed a content and construct validity. Face to face pre-testing with three over-indebted borrowers and Content Validity Index (CVI) with 6 experts had been conducted for the content validity test, with the intention to verify the questionnaire in terms of its clarity, wordiness, balance and overlapping. The "Questionnaire Validation Rubric" adapted from White and Simon (2016) with the verification questionnaire form uses 4 ordinal scales (from 1 = not relevant, to 4 = most relevant) to indicate the validity index for each item. Based on the two testing, no items were drop from the questions, the instrument presented good and excellent accordance regarding its content validity. Meanwhile, the construct validity of the instrument was tested by using the Pearson's correlation. In addition, we also verified the instrument's reliability through Cronbach's alpha. The construct's validity and reliability were tested by using SPSS version 26.

Analysis and Results

Snowball convenience sampling was used for recruiting over-indebted borrowers to participate in this survey, and the questionnaires were distributed through the Internet. The respondents must be from an over-indebted borrowers who has a debt-income-ratio of 50% and above. In line with psychological and social science practices, the 7-point Likert scales were range from with 1= Strongly Disagree and 7= Strongly Agree. A total of 110 respondents were participated in this study, and after gone thru a data screening process, 4 questionnaires had been omitted due the reasons of high missing values, and thus it was a total of 106 questionnaires that can be used for the data analysis. Majority of the respondents are from the age 36 – 40 years (52 respondents) followed by 31-35 years (34 respondents), 26 – 30 (18

respondents) and only 2 respondents are from 20 – 25 years. Based on the gender, the sample contained 64 male and 42 female respondents. In terms of income, 26 respondents earn an income of less than RM2000 per month, 52 respondents earned RM2001 – RM4000, 23 respondents have an income of RM4001 – RM6000, and 5 respondents earn RM6000 income per month.

Through the principal component method to estimate the factor loadings and specificity, the EFA was conducted. For this study, the KMO = 0.811, which demonstrated that the data were suitable for factor analysis. Bartlett's sphericity test was significant (300.186, df = 21, $p \leq 0.000$). We adopted the varimax rotation method and the number of factors estimated with eigenvalues higher than 1. The result shown that 1 item had been auto deleted (LIP1) due to no value in the factor loading, and the remaining 7 items are constructed into 1 dimension.

Table 3. EFA and realibility results

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy			0.811
Bartlett's Test of Sphericity		Approx. Chi-Square	300.186
		df	21
		Sig.	0.000
Code	**Items**	**Facto Loading**	**Cronbach's Alpha if item Deleted**
LIP2	Loan officers explained all the terms and conditions of the loan to me.	0.668	0.847
LIP3	Financial institutions disburse the loan in time for me in the time needed	0.669	0.846
LIP4	The duration on loans given is adequate for me	0.817	0.822
LIP5	I received the loan amount I wanted from the financial institutions	0.752	0.835
LIP6	The loan repayment schedule of financial institutions is convenient for me	0.733	0.837
LIP7	Financial institutions provide fair rescheduling options for a borrower in honest difficulties.	0.770	0.31
LIP8	The interest rate offered by the bank is affordable	0.724	0.838
Eigenvalues 3.780			
% Of Variance 53.996			
Cumulative % 53.996			
Cronbach's alpha			0.857

Further, we perform a Person's Correlation in assessing the constructs validity of the instruments, and the results shown that all the items are valid with p-value is significant at the 0.001 level. For validity confirmations, we calculated convergent and discriminant validity manually and obtained the 0.733 value for average factor loading and 0.54 for discriminant validity. These two values had surpassed the minimum cutoff value for convergent and discriminant validity (CR=0.7; AVE=0.5), and thus reconfirmed that all the 7 LIP's instruments are valid. As for reliability testing, the Cronbach's alpha value from the data set shown α=0.857 and thus the LIP's instruments are reliable. Details results for the EFA, construct's validity and items reliability as presented in table 3 and Table 4, while the final validated items presented in table 5.

Table 4. Perason's Correlations value for constructs validity

	Correlations							
		LIP2	LIP3	LIP4	LIP5	LIP6	LIP7	LIP8
LIP2	Pearson Correlation		.531**	.535**	.283**	.305**	.436**	.404**
	Sig. (2-tailed)		.000	.000	.003	.001	.000	.000
LIP3	Pearson Correlation	.531**		.468**	.534**	.366**	.336**	.267**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.006
LIP4	Pearson Correlation	.535**	.468**		.559**	.495**	.537**	.558**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
LIP5	Pearson Correlation	.283**	.534**	.559**		.524**	.455**	.489**
	Sig. (2-tailed)	.003	.000	.000		.000	.000	.000
LIP6	Pearson Correlation	.305**	.366**	.495**	.524**		.615**	.439**
	Sig. (2-tailed)	.001	.000	.000	.000		.000	.000
LIP7	Pearson Correlation	.436**	.336**	.537**	.455**	.615**		.543**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
LIP8	Pearson Correlation	.404**	.267**	.558**	.489**	.439**	.543**	
	Sig. (2-tailed)	.000	.006	.000	.000	.000	.000	

Table 5. Final Lending Institutions' Practice (LIP) instruments

Code	Items
LIP1	Loan officers explained all the terms and conditions of the loan to me.
LIP2	Financial institutions disburse the loan in time for me in the time needed
LIP3	The duration on loans given is adequate for me
LIP4	I received the loan amount I wanted from the financial institutions
LIP5	The loan repayment schedule of financial institutions is convenient for me
LIP6	Financial institutions provide fair rescheduling options for a borrower in honest difficulties.
LIP7	The interest rate offered by the bank is affordable

Conclusion

The growth in financial innovation and financial liberalisation has made consumer access to credits easier while causing financial problems. While the factors involved in financial institutions concerning the debt problem have been widely discussed in the literature, previous studies have paid little attention to several critical questions concerning modern market economies and how these impact consumer behaviours. Moreover, research on credit markets typically focuses on lending to firms, while households are mainly viewed as suppliers of funds rather than as debtors (Japelli et al., 2013). The relationship between lenders and households is, in fact, essential in understanding the implication of easy access to credit on the lifestyles of households and their material welfare (Kuss et al., 2018). Most of the studies on lending institutions used objective measures to assess the effect of LIP on indebtedness. Besides, the subjective effects of LIP on consumer indebtedness have only been discussed literally, without having valid testing on the LIP's item measurements for the solid instruments.

In this current study, the researcher had addressed this gap by adopting a lending institutions measurement in subjective measures (such as lax lending methodology by lending institutions) in validating the LIP instruments that suit them with the consumer's and household over-indebtedness studies context. The validation process involves content and constructs validity. Through a cross-sectional online survey, this study showed that LIP's instruments are valid and reliable. It is hoped that the instruments will be further validated and extended through application in future research. Besides the current study's usefulness, this study has a few limitations. As the main focus of the study is to validate the LIP instruments based on the consumer's over-indebtedness study context, thus we had selected only over-indebted borrowers as our respondents. Future researchers could apply the current instruments and validate it to the other respondents. With the results and limitations, we open for the future researcher to extend the research, contributing to the consumer behaviour study context.

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