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## Household Behavior towards Debt in a Challenging Financial Environment: Malaysian evidence

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### Abstract

The study of household behavior towards debt is important in this challenging financial environment. Escalating household debt can cause social and economic problems. For the past few years, Malaysia has emerged as the country with the highest household debt in the ASEAN region. This study aims to examine the predictors of intention to incur household debt among Malaysian households. Analysis on 100 fully completed and operational questionnaires in the preliminary study revealed financial literacy and subjective norm as significant predictors of attitude and the mediating relationship between attitude and intention to incur household debt was found to be negatively significant.

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### 1. Introduction

It was an excessive household debt that triggered the global financial crisis which started in the United States (U.S.) in 2007 that led to severe worldwide financial instability. Lund and Roxburgh (2010) revealed that leverage levels are still high in some sectors (particularly household sector) of several countries, and this is a global problem, not just a U.S. one. In the current challenging financial environment, household debt is still escalating hence causing high levels of financial anxiety. The challenge of paying down debt, be it housing, automotive, education or credit cards can be overwhelming especially in a weak financial environment. Meanwhile, the household debt situation in some emerging ASEAN countries also denotes substantial increase for the past few years (Nakornthab, 2010). In emerging ASEAN countries, the increasing trend of household debt relative to disposable income has been worrisome. According to Standard Chartered Research Estimates (2013), Malaysia emerged as the highest household debt country in the region with 177% of household debt to disposable income; Singapore in second place at 147%; and Thailand at 91% in 2012. U.S household debt to disposable income ratio was 130% when the subprime crisis began.

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There are also many problems arising from household debt burden apart from the above-mentioned ratios. Financial and social problems usually accompany households with large debt burdens. Some of these financial problems include cash flow problems, loan defaults, foreclosures and even bankruptcies. Meanwhile, social implications such as psychological distress (Brown, Taylor, & Wheatley Price, 2005); depression, anxiety and anger (Drentea & Reynolds, 2012); marital instability (Sullivan, Warren, & Lawrence, 1995); divorce (Fisher & Lyons, 2006) and even suicidal ideation; and contemplation (Meltzer, Bebbington, Brugha, Jenkins, McManus & Dennis 2011) can be the results of too much household debt.

The study of household behavior towards debt, therefore, is vital considering the current state of global household debt situation, and that includes Malaysia. Looking closely again at Malaysia, the issue of escalating household debt has been bothering the government recently. In Malaysia, bankruptcy cases are on the rise. Young adults (aged 25 to 34) and mature adults (aged 35 to 44) were amongst the majority aged group declared bankrupt ("Malaysia Department of Insolvency," 2013). This issue should be of great concern since young and mature adults are supposed to be the main resources that can contribute to the economy of a country.

A fairly extensive literature has provided evidence that behavioral factors influence individuals' debt financing decisions. Apparently, different research has considered different factors that may influence households' debt behavior. Research has revealed that consumer credit behavior is influenced by psychological factors such as attitude and self-control (Davies & Lea, 1995; Livingstone & Lunt, 1992; Tokunaga, 1993). Also, Chien and Devaney (2001) have discovered consumer debt from attitude, economic and demographic variable perspectives. Rutherford and Devaney (2009) have found that the likelihood of being a convenient user of credit cards was affected by attitude variables. Meanwhile, Xiao, Tang, Serido, and Shim (2011) posited that behavioral intention was the most important factor in preventing risky credit behavior and credit card debt accumulation. A very important contribution was then introduced in the first decade of 2000 which was financial literacy. Research has shown that students and young adults were susceptible to credit card debt due to a lack of financial literacy (Hayhoe, Leach, Allen, & Edwards, 2005). Some studies have also identified a significant relationship between financial literacy and credit card debt (Chudry, Foxall, & Pallister, 2011; Grable, Park, & Joo, 2009; Hayes, 2012; Jorgensen & Savla, 2010).

The main objective of this study is to determine the predictors of intention to incur household debt among Malaysian households. This study is thus aimed at examining the role of attitude as a mediating variable in relations between financial literacy, subjective norm, perceived behavioral control and intention to incur household debt. Findings from the study would be beneficial to policy makers and also provide a new source of reference to assist relevant authorities and financial planners in educating and instilling awareness among the public about the predictors of intention to incur household debt. It would also help to prevent extreme level of household indebtedness in all countries.

## 2. Literature Review and Study Framework

### 2.1. The proposed theoretical model

Figure 1 depicts the proposed hypothetical model for the current study. Variables such as attitude, subjective norm and perceived behavioral control (PBC) are recognized factors of Theory of Planned Behavior (TPB) that have been widely studied in the context within the psychology field (Andrykowski, Beacham, Schmidt, & Harper, 2006); and also marketing field (Ha & Janda, 2012; Zhou, Thøgersen, Ruan, & Huang, 2013). The TPB has also been applied in studies relating to indebtedness or debt burden. These studies range from areas concerning financial well-being; financial self-confidence; budget control; intention to borrow; risky credit behavior; convenient use of credit card debt and mortgage equity withdrawals (Chudry, Foxall, & Pallister, 2011; Duca & Kumar, 2014; Norvilitis & Mao, 2012; Norvilitis & Mendes-da-silva, 2013; Rutherford & Devaney, 2009). Meanwhile, for financial literacy, past empirical studies have shown that participation in the stock market, limited financial preparation for retirement, household wealth and financial decision-making are associated with lower levels of financial literacy (Guiso & Jappeli, 2008; Lusardi, 2012; Lusardi & Mitchell, 2007; Rooij, Lusardi, & Alessie, 2007). Therefore, the model for the current study examines the relationship between TPB variables and an additional variable, financial literacy and intention to incur household debt.

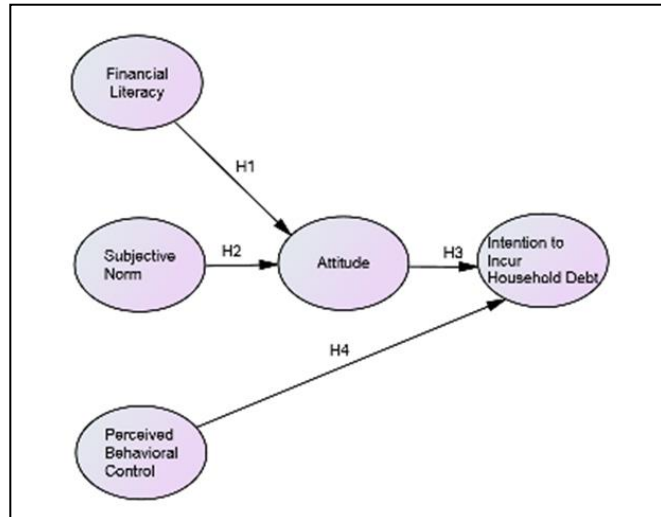


Fig. 1. Proposed Hypothetical Model

## 2.2. Financial literacy

Financial literacy measures a specific construct that has been widely studied within the broad field of social science: including psychology, economics and sociology (Chudry, Foxall, & Pallister, 2011; Grable, Park, & Joo, 2009; Hayes, 2012; Jorgensen & Savla, 2010). In considering these factors, financial literacy meets all of Ajzen (2008) criteria for being added as a predictor. According to Kennedy (2013), as researchers have suggested that those with a lack of financial literacy possess greater sums of credit card debt (Chudry et al., 2011; Grable et al., 2009), it is conceivable that financial literacy be a causal factor in determining the behavioral intention to use credit cards and acquire credit card debt. Furthermore, recent researchers have identified a significant relationship between financial literacy and credit card debt (Chudry et al., 2011; Grable et al., 2009; Hayes, 2012; Jorgensen & Savla, 2010). This suggests that financial literacy is not only conceivable but empirically supported as a causal factor in determining actual credit card debt. In a very recent study by Scheresberg, Lusardi, & Yakoboski (2014), they posited that a low level of financial literacy underlies the financial decisions of generation Y. This situation is compounded by a lack of awareness of the financial knowledge. Despite self-perceptions of high financial knowledge among college-educated millennials, only 14% answered the five basic literacy questions correctly, and only 37% answered the first three questions correctly. As a result of meeting these criteria, financial literacy was added as a predictor to the original TPB model in this study.

## 2.3. Subjective norm

With regard to behavior towards debt, Carpenter and Reimers (2005) described subjective norm as the influence of family members, friends and others that were close to the individual. The view on debt could change when the opinions and ideas of these individuals close to them change. This was supported by Chudry et al. (2011) who posited that friends and parents were also recognized as the source of subjective norms. Also, subjective norms or social norms dictate that lifestyles and expectations of people around an individual influence a person's purchasing decisions (Armitage & Conner, 1999). Therefore, households who desire to live an equivalent lifestyle with those around them would borrow in order to engage in behavior expected by their social network groups. This was affirmed by Rutherford and Devaney (2009) who claimed that subjective norms toward households' credit card usage were measured by the households' willingness to finance expenses that were commonly a result of social pressure.

## 2.4. Perceived Behavioral Control (PBC)

PBC has also been a predictor in the context of debt. Madden, Ellen, and Ajzen (1992) stated that control is attained through relevant resources and opportunities for performing a given behavior. This was supported by Rutherford and Devaney (2009) who stated that the more resources and opportunities individuals thought they possessed, the higher their perceived behavioral

control. According to Rutherford and Devaney (2009), an example of one significant resource is information and knowledge about debt options. Knowledge about debt could be attained through self-study, such as past experiences and self-analysis, or by referring to external sources for assistance. The most common source of assistance is mass media outlets by Ford (1990) who studied credit and default amongst youngsters. The study of the usage of financial experts by Elmerick, Montalto, and Fox (2002) on the use of financial planners by U.S. households is also a common source of assistance. Hence, households who take the effort to gather credit information would likely increase their perceived control of the accuracy of their decisions.

## 2.5. Attitude

Numerous previous researchers have examined various human behaviors and confirmed the relationships between attitude and behavioral intention by using the TPB. Some researchers have shown that attitude towards money usage and credits were significant determinants of debt behavior (Livingstone & Lunt, 1992; Stone & Maury, 2006; Tokunaga, 1993). For instance, Livingstone & Lunt (1992) investigated the effect of attitudinal, self-control, and related social factors on debt accumulation and discovered that attitude toward credit was a significant determinant of debt accumulation. Davies and Lea (1995) did a study on the relationship between attitude and debt and discovered that students who were in debt often had a positive attitude on debt. This was also supported by Walker (1996) and Chien and Devaney (2001) who reported significant relationship between attitude and debt.

This scenario on the positive relationship was however not always the case as discovered by Tokunaga (1993) on households and debt. The study found that households who incurred debt or possessed credit cards have low positive attitude towards debt as compared to households who have no debt. To support these differing results was Zhu and Meeks (1994) who revealed that there is no relationship between credit attitude and credit debt among low-income family. Therefore, such inconsistent results to some extent confirmed Ajzen & Fishbein (1977) allegation that the relationship between attitude and behavior is complicated.

## 2.6. Intention to incur household debt

Ach (1935) cited from Gollwitzer (1993) who defined intention as acts of willingness. He proclaimed that the intention to execute a certain action in a specified situation to be the ideal act of willingness. In finance, intention has been investigated in many different areas. Among the studies were on intention to borrow money among students by Chudry et al. (2011), intention to use credit card by Xiao et al. (2011) and intention to manage cash and debt wisely among young adults (Shim, Xiao, Barber, & Lyons, 2009). These past studies on intention form the basis of the conceptual framework of this study of household behavior towards debt in a challenging financial environment.

On the basis of preceding findings, the hypotheses guiding this study propose the following:

- Hypothesis 1: Financial literacy has a significant positive effect on attitude
- Hypothesis 2: Subjective norm has a significant positive effect on attitude
- Hypothesis 3: Attitude has a significant effect on intention to incur household debt
- Hypothesis 4: Perceived behavioral control has a significant positive effect on intention to incur household debt.

## 3. Research Methodology and Data Analysis

### 3.1. Instrument development

In order to measure attitude, 14 items developed by (Lea, Webley, & Walker, 1995; Pattarin & Cosma, 2012) were adopted and refined to suit the current study context. Each of the items was presented on a seven-point scale ranging from 'strongly disagree' (1) to 'strongly agree' (7). To measure subjective norm, the researchers adopted the measurement by Kennedy and Wated (2011). Respondents were asked to indicate their degree of the agreement according to the 12 items with selected scale ranging from 'strongly disagree' (1) to 'strongly agree' (7). To measure perceived behavioral control towards an intention to incur household debt, the researchers adopted a seven-point scale from the 7 items developed by Kennedy and Wated (2011) and Rutherford and Devaney (2009). The researchers used 8 items to measure financial literacy developed by ("American Association of University Women [AAUW]," 2010). To measure intention to incur household debt, 12 items developed by Kennedy and Wated (2011) were adopted and refined to suit the current study context.

### 3.2. Sample and procedure

In this preliminary study, the questionnaires were distributed to households in the Klang Valley, Malaysia. The survey sample of this study composed of heads of households. Self-administered questionnaires were distributed in respective offices as in drop-off and collect technique. Research has shown that this method is suitable for extensive surveys and furthermore, it can minimize non-response errors (Hair, Celsi, Money, Samouel, & Page, 2003). 150 questionnaires were distributed and 108 collected and completed with 100 contained operational data. Of the total respondents, 72% were male head of households and only 28% female head of households. Most participants were aged from 30 to 39 (39% of the sample) and married with children (61% of the sample). Fifty-three percent of the respondents possessed a bachelor's degree and 43% of the sample has family monthly gross household income between RM3,001, and RM6,000. Respondents with a total current household debt of RM150,001 – RM300,000 accounted for 34% of the sample.

## 4. Data Analysis

Data were analyzed by using SPSS 21 package. Descriptive statistics was also used to distinguish the demographic information of respondents and to identify households' behavior about the intention to incur household debt. Factor analysis was also used to evaluate all the variables. Principal component analysis with varimax rotation was used to compile strategic data to arrive at principal factors. Minimum eigenvalues of 1.0 with items loading above 0.50 were applied to determine the number of factors for each scale. For scale reliability, Cronbach alpha value was evaluated. Alpha coefficient was used as a measurement for reliability and the Cronbach alpha value which is greater than 0.7 is acceptable and deemed to be adequate (Nunnally & Bernstein, 1994). Cronbach alpha coefficients for each factor ranged from 0.79 to 0.87, indicating that all multi-items variables were internally consistent. The five variables in the proposed framework were tested using the regression analysis. The hypothesized model in this study was designed to measure relationships among the unobserved constructs. At the same time to determine whether attitude, subjective norm, perceived behavioral control and financial literacy could predict intention to incur household debt.

## 5. Results

### 5.1. Sample characteristics

Table 1 shows the detail results of the descriptive analysis of each of the variables. In terms of attitude, the highest mean score is represented in item 11 where borrowed money should be repaid as soon as possible, with a mean score of 6.31. The next highest mean score of 6.12 is by item 14, which examine knowledge about credit as important to make the right choice. The overall mean score of 4.67 indicates that the respondents have rated moderately positive in attitude. For subjective norm, the highest mean score of 5.50 is on item 4. This is with regard to households' beliefs that their friends consider it important to pay off their installment in full each month. The second highest score item is item 8 with a mean score of 5.46 pertaining to households' social network groups (Facebook, Twitter, etc) who think that today's lifestyle cause people to incur more debt. The overall mean score of 4.83 indicates that household consider subjective norm to be reasonably important in their decision to incur household debt. For perceived behavioral control, all items were rated above 4 which is the mid-point of the scale utilized, except for item 5 and 7. Item 4 indicates that it was mostly up to the head of households to decide on whether or not one stays out of household debt, with the highest mean score of 5.15. Then it is followed by item 3, which shows that head of households have control over staying out of household debt, with a mean score of 4.72. The overall mean score of 4.39 indicates that households find that they have moderate perceived behavioral control to stay out of household debt. About the financial literacy variable, item 1, which is about knowing the difference between a credit and a debit card, has the highest mean score of 6.29. The next highest value with a mean score of 6.25 is on the households' knowing what would happen to them if they default on their loan. The overall results with an overall mean value of 5.02 provide evidence that households are moderately financial literate.

Overall, of all the four variables, financial literacy has reported as having the highest overall mean (5.02). Secondly, it is followed by subjective norm, which has an overall mean value of 4.83. Interestingly, perceived behavioral control is reported as having the lowest mean with a value of 4.39.

Table 1. Descriptive statistics of attitude, subjective norm perceived behavioral control and financial literacy

Attitude	Mean Score	Std. Dev.
Having a loan is a good thing as it allows me to make my life better	3.26	1.60
It is a good idea to defer payment for all my purchases	2.19	1.39
Having debt is never a good thing	5.32	1.91
Credit is an essential part of today's lifestyle	3.93	1.62
It is important to live within one's means	5.90	1.52
I am not worried of having debt (this condition is not stressful for me)	2.65	1.66
I like having a credit card	2.86	1.79
I do not like borrowing money	4.87	2.24
I prefer to use my savings when I want to buy expensive goods	4.93	1.85
I save a little regularly even though my income is low	5.47	1.60
Borrowed money should be repaid as soon as possible	6.31	1.17
I keep track of my household debt	5.65	1.34
I gather information and make comparisons before applying for credit	5.94	1.23
Knowledge about credit is important for me to make the right choice	6.12	1.20
<b>Overall mean</b>	<b>4.67</b>	
Subjective norm	Mean Score	Std.Dev.
Most people who are important to me (e.g. parents, siblings, and friends) have household debt balance	4.80	1.29
The people in my life whose opinions I value (e.g. parents, siblings, and friends) have household debt balance	4.61	1.37
Most of my friends have at least three kinds of debts (housing, automotive and personal loans)	5.33	1.41
My friends consider it important to pay off their installment in full each month	5.50	1.32
My family members and friends have to use credit cards to help them pay for living expenses	3.43	1.55
My family members and friends think that household debts (e.g. housing, automotive, personal, education loans and credit cards) are just part of modern day experience	4.56	1.53
My family members and friends must have at least some kind of debt	5.03	1.47
My social network groups (facebook, twitter, etc.) think that today's lifestyle cause people to incur more debt	5.46	1.37
My social network groups (facebook, twitter, etc.) consider it important to spend within the budget	5.43	1.47
My social network groups (facebook, twitter, etc.) think that taking up loans (e.g. housing, automotive, personal, education and credit cards) are a necessity	5.08	1.31
Newspaper advertising exposure has an influence on my decision to take up household debt (e.g. housing, automotive, personal loans, education loans and credit cards)	4.37	1.63
Television media exposure has an influence on my decision to take up household debt (e.g. housing, automotive, personal loans, education loans and credit cards)	4.38	1.65
<b>Overall mean</b>	<b>4.83</b>	
Perceived behavioral control	Mean Score	Std. Dev.
It is possible for me to stay out of household debt	4.45	1.74
If I wanted to, I could stay out of household debt	4.54	1.79
I have control over staying out of household debt	4.72	1.61
It is mostly up to me as to whether or not I stay out of household debt	5.15	1.53
I get source of credit advice from financial experts	3.81	1.73
I get source of credit advice from friends/ families	4.48	1.77
I get source of credit advice from the media	3.56	1.75
<b>Overall mean</b>	<b>4.39</b>	
Financial literacy	Mean Score	Std. Dev.
I know the difference between a credit and a debit card	6.29	1.15
I know what happens if I default on my loan	6.25	1.15
I think that filing bankruptcy is a good option	2.96	1.74
I know how much I should have in an emergency fund	5.12	1.54
I know how to figure compound interest on my account	4.63	1.64
I know the difference between stocks, bonds, and unit trust	4.42	1.65
I know what percent of my income should go toward paying for housing	5.20	1.46
I know how to set up a personal budget	5.28	1.30
<b>Overall mean</b>	<b>5.02</b>	

## 5.2. Hypothesis tests

The relationship between the independent variables – financial literacy, subjective norm, perceived behavioral control and mediating variable, attitude, and the dependent variable – intention to incur household debt was examined using a series of linear regression analysis. Financial literacy and subjective norm are significantly predictive of attitude (R-squared = 0.23).

Financial literacy is significantly predictive of attitude ( $\beta = 0.20$ ,  $p < 0.05$ ). Hence, H1 was accepted. Subjective norm is also significantly predictive of attitude ( $\beta = 0.40$ ,  $p < 0.05$ ). Hence, H2 was accepted. The mediating relationship between attitude and intention to incur on household debt (H3) was found to be negatively significant ( $\beta = -0.23$ ,  $p < 0.05$ ) and thus supporting H3. H4, which links perceived behavioral control and intention to incur household debt was found not significant ( $\beta = -0.10$ ,  $p > 0.05$ ), and H4 is not supported. A summary of the results is depicted in Table 2.

Table 2. Results of the Tested Hypotheses

	Hypotheses No. and hypothesized paths	Standardized Coefficient	t-value	Significance level
H1	Financial literacy $\rightarrow$ Attitude	0.20	2.23	0.028
H2	Subjective norm $\rightarrow$ Attitude	0.40	4.4	0.000
H3	Attitude $\rightarrow$ Intention to incur household debt	-0.23	-2.38	0.019
H4	PBC $\rightarrow$ Intention to incur household debt	-0.10	-1.02	0.312

\*Significant at  $p < 0.05$  ( $t > 1.96$ )

## 6. Discussion and Conclusion

This study addresses an investigation on household behavior towards debt in a challenging financial environment by examining financial literacy, subjective norm, and perceived behavioral control, mediated by attitude on the intention to incur household debt. Results from the descriptive analysis indicated that households possessed slightly above moderate financial literacy when it comes to managing their personal finance. Similarly, subjective norm also recorded slightly moderate result, and this indicates that family members and friends do play an important role in influencing households to incur debt. However, low overall mean for attitude indicated that households do not like the idea of borrowing if they can avoid it as much as possible. Similarly for PBC, the result is supportive because households find that it is beyond their control when it comes to incurring debt. It is due more to the necessity of today's lifestyle that caused them to borrow. In hypotheses testing, the findings suggest that three out of four hypotheses in the study are supported by the data. The hypothesis test result indicates that financial literacy and subjective norm have a significant relationship with attitude.

This result supports previous findings by Kennedy (2013) that financial literacy can be a causal factor in determining the attitude towards debt and subsequently, behavioral intention to use credit cards and debt. Meanwhile, Rutherford and Devaney (2009) found a link between subjective norm and household credit card usage, affirming that households' willingness to finance expenses are commonly a result of social pressure. This is supported by Karlsson, Dellgran, Klingander, and Gärling (2004) who postulated that there is a positive relationship between a household's option to be in debt and its social group of reference. Meanwhile, the mediating attitude has a significant negative relationship with intention to incur household debt. This result supports previous findings by Tokunaga (1993), who did a study on households and debt, found that households who incurred debt or possessed credit cards have low attitude towards debt as compared to households who had no debt. To support these differing results, Zhu and Meeks (1994) revealed that there was no relationship between attitude and credit debt among low-income family. Therefore, such inconsistent results to some extent confirmed Ajzen and Fishbein (1977) allegation that the relationship between attitude and the behavioral intention is complicated. Therefore, when the attitude is positive, intention to incur debt is low and when the attitude is negative, intention to incur debt is high. The low and middle-income Malaysian households would regard borrowing as a necessity for their consumption compared to the higher income households would regard borrowing as a luxury. However, PBC has no significant relationship with intention to incur household debt. A possible explanation for this is that the sample size for this study is relatively low (100) since this is only a preliminary test.

This study has contributed to the area of research on household behavior towards debt in a challenging financial environment. The findings of this study would provide a new source of reference to assist relevant authorities namely AKPK in Malaysia and financial planners in educating and instilling awareness among the public about the predictors of household behavior towards debt. It would also help to prevent extreme level of household indebtedness in the future.

## 7. Limitations and Future Research Directions

A limitation of this study is related to its scope and sample size since this is only a preliminary study. This study is only confined to only the Klang Valley. As this may not be representative of all households, a replication study in other context or different location with the suitable sample size would be valuable to increase understanding of household behavior towards debt. This study was conducted on the basis of Malaysian household behavior with different cultural background, lifestyles, and socio-economics. Therefore, there is a possibility that cultural bias may play a role in the outcome of the study which future studies can investigate. Similarly, factors other than those investigated in this study would also need to be considered. Other predictors of attitude such as lifestyle, advertisement and motivation that have been advanced in prior literature may also be equally important. Other factors such as economic and social factors that include poverty, unemployment, and labor productivity may also be included in future research.

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