

The association between household debt and marriage satisfaction in the context of urban household in Klang Valley, Malaysia

Yunchao Cai*, Selamah Abdullah Yusof, Ruzita Mohd Amin,
Mohd Nahar Mohd

Department of Economics, International Islamic University, Malaysia

ARTICLE INFO

Article history:

Received 28 October 2019

Accepted 21 December 2019

Published 31 January 2020

Keywords:

Household debt

Marriage satisfaction

Housing loan

Personal loan

Malaysia

ABSTRACT

By using the data collected from urban households in Klang Valley, Malaysia, this study tries to provide empirical evidence on the effect of household debt on married Malaysian couples on their marital satisfaction. This study wishes to extend the implications of household debt in Malaysia beyond economic concern per se. We found that household debt does have a negative association with marriage satisfaction for married couples in Klang Valley Malaysia. Such relationship is valid even financial wellness and other demographic variables are controlled. Moreover, the less secured personal debt shows a significant negative relationship with the couple's marriage satisfaction compared with no evidence on the impact of housing loan.

1. Introduction

Although public media and Bank Negara Malaysia (BNM, the central bank of Malaysia) reports keep advise on the high rise of household debt level in recent years, Malaysia individuals and families still contract and carry a high level of household debt. The overall household debt level in Malaysia remained elevated even it has expanded at a slower pace in recent years (Bank Negara Malaysia, 2019). Until 2018, the total household debt stood at RM1.18 trillion. Given this situation, it is not surprising that there is increasing attention from researchers and policymakers on the potential implication of household debt for the Malaysia economy and the general public (Adzis, Bakar, & Shahar, 2018; Khan, Abdullah, & Samsudin, 2016; Loke, 2017; Nazni, Zaherawati, Sawal, Ngah, & Hussin, 2012; Rani, Nordin, Chin Ching Lau, Sheng Ling Lim, & Zhen Shing Siow, 2017; Siti, Borhan, Ling, Khairul, & Abd, 2018; Yusof, Rokis, & Jusoh, 2015). However, among the concerns very little is known about the possible relationship between household debt and marital satisfaction in Malaysia.

* Corresponding author. *E-mail address:* caiyunchao@gmail.com

From the literature, the studies that have examined the implications of household debt have found indebted individual or household is not only facing greater challenge on their financial wellness (Joo, 2008), they are also exposed to higher tendency to suffer from depression (Berger, Collins, & Cuesta, 2016; Gathergood, 2012), anxiety (Drentea, 2000; Drentea & Reynolds, 2012), or other health-related problems (Ochsmann, Rueger, Letzel, Drexler, & Muenster, 2009; Turunen & Hiilamo, 2014). Even the economic rational model has its basic assumption which suggests the action of undertaken credit is a voluntary action to maximize individual or family utility. However, the real outcome of high indebtedness is not favoring such an assumption, it may harm one's utility and even affect marriage relationships. The studies that have analyzed the impact of household debt on marriage relationships have suggested the household debt may create strain on the marriage relationship, especially when the tendency of disagreement and argument between couple rise on assuming of debt. As matters about money is a central issue to couple relationships (Skogrand, Johnson, Horrocks, & DeFrain, 2011), the expectation, desirability, and practicability of debt may be challenged with limited financial choice constrained by indebtedness (Dew, 2011b). The foolish spending or overspending may spark more tension when limited financial resources are available. In the result, the conflict led by debt may reduce marriage satisfaction (Conger, Rueter, & Elder Jr., 1999).

Therefore, this study attempt to use data collected from the urban household in Klang Valley Malaysia to examine this possible relationship. There is no study that has ever examined the effect of household debt on married Malaysian couples on their marital satisfaction. This study wishes to extend the implications of household debt in Malaysia beyond economic concern per se. The knowledge of the effect of household debt during debt repayment may help Malaysians to aware of the unrevealing fact of household debt for Malaysian families. If household indebtedness is related to marital satisfaction, a family may want to adjust their borrowing behavior or be cautious with their debt borrowing. Moreover, the comparison of the effect of secured home loan and unsecured personal loan with marital satisfaction may also help couples to adjust their financial management strategy for better wellbeing of their marriage.

2. Literature Review

Compared to other types of marital disagreement, marital conflict about money is more pervasive, problematic and recurrent for couples (Papp, Cummings, & Goeke-Morey, 2009). Dew and Dakin, (2011) discovered the financial disagreement among couples was one of the top predictors of marital conflict intensity. The social exchange theory (Nye, 1980) asserts that the individual compares the benefits and costs of the relationship with their expectations. If the cost/benefit assessment meets or exceeds the relationship expectation, the marital relationship will remain. Conversely, if the cost/benefit assessment fails to meet the relationship expectation, the marital relationship may change. In terms of indebted household, the situation of financial strain may make a couple difficult to meet their expectations. Thus, the perception of one's spouse over-spending and different orientations towards money are all strongly associated with lower marital quality (Britt, Grable, Nelson Goff, & White, 2008; Rick, Small, & Finkel, 2011). As Dew (2008) used the National Survey of Families and Household (NSFH) data measures the debt changes related to change in marital satisfaction. The evidence showed that change in consumer debt is negatively related to spouses' time together, positively related to conflict over money, and in turn reduced the marital satisfaction.

Moreover, the family stress model (Conger et al., 1999; Dew, 2007; Dew & Yorgason, 2010; Mistry, Lowe, Benner, & Chien, 2008) also applied to explain the relationship between the household debt and family relationships. The model suggests the perceived financial difficulties increase emotional distress, which in turn increases conflictive marital interactions and decreases positive marital interactions. Therefore, the financial distress caused by indebtedness may lead to an increase of psychological distress of the family members. The intra-household relationship may potentially be affected when family

members feel more depressed due to the indebtedness level. The early study by Conger et al., (1990) studied over 400 married couples in 3 years on the impact of economic hardship on couple's marital quality and marital stability, found that economic pressure increases the chances for emotional distress which in turn, increases the risk for marital conflict and subsequent marital distress. In other studies, Conger et al., (1992, 1993) found that consistency in the relationship between economic distress and parent psychological distress can further be associated with both marital conflict and poorer parenting skills.

More recently, Dew (2007) used the National Survey of Families and Household (NSFH) data and found robust evidence on consumer debt directly predicts the change in the frequency of marital conflict after controlling for initial conflict. This is due to the consumer debt increases economic pressure, which in turn increases the risk of marital conflict. The significant prediction of consumer debts to marital conflict and marital satisfaction among couples provides further level of the marital relationship into marital stability. Dew, (2011) continued to use nationally represented data, NSFH, to examine the relationship between consumer debts and divorce cases. The 4,574 couples of sample data indicate consumer debts are positively associated with divorce. Every 1-unit increase in consumer debt was associated with a 7–8% increase in the likelihood of divorce. Financial conflict is the mediator of this relationship for both husbands and wives. The positive association of consumer debts and divorce which was confirmed by Dew (2011) conflicted with Sanchez and Gager, (2000) who used the same data. Sanchez and Gager (2000) found that there is no association between these two variables. The difference in terms of the result may be due to the methodological difference.

Moreover, when examining the implication of household debt on individual wellbeing is considered, the types of debt were also one of consideration in many analyses. As types of debt have different characteristics, the implications also differ between types of debt (Berger & Houle, 2016; Brown, Taylor, & Wheatley Price, 2005; Gathergood, 2012). Studies, especially in psychology, have found different impacts on wellbeing of different types of household debt (Drentea & Lavrakas, 2000; Brown et al., 2005; Norvilitis et al., 2006; Berger, Collins & Cuesta, 2013; Richardson, Elliott & Roberts, 2013). The unsecured loans show more confirmed evidence in relation with poorer wellbeing compare to secured loans. However, there are fewer studies differentiate the impact of different debt on examining the marital relationship. The studies were mainly focused on the relationship between debt and marital relationships. The type of debt was less considered. Therefore, more specific analysis is needed to examine the potential differences between different types of debt with marital satisfaction.

3. Research Methodology

3.1 Sample Data

The sample data for this research was collected from urban households in Klang Valley*, Malaysia. For the purpose of randomness and representativeness, the selection of the sample in this research was based on Department of Statistic Malaysia (DoSM) 2010 Census sampling frame. This sampling frame applied the multistage sampling method. At first stage the population in Klang Valley was divided into

* Klang Valley is the largest urban area in Malaysia and the main economic center of the country with a population of 6.37 million in 2017. Based on Population Distribution and Basic Demographic Characteristic Report 2010 (Department of Statistics Malaysia, 2011), the area is almost 100 percent urbanized.

enumeration blocks (EBs)[†]. Based on the clustered EBs, the DoSM randomly selected 98 EBs[‡]. Then, household from each EB was randomly selected. By the request of the researcher, DoSM has helped to randomly select 600 households from randomly selected enumeration blocks. The addresses have been listed based on its area and district in which each household's address was clearly stated and presented. The selected households' addresses are varied by the types of houses in Malaysia such as apartment, condominium, flat, landed houses and others. However, the selected sample did not contain any other information such as household head name, contact, race, etc..

The survey on these 600 households were conducted between February to August 2017. All the selected household have been visited. The respondents were the head of household or the main financial decision maker of the household. Due to the multiracial characteristic of the Malaysian society, two sets of identical bi-lingual questionnaires were prepared using three different languages - Malay/English and Chinese/English. Each respondent was interviewed or given the survey to fill up. The final sample size of 310 married respondents were collected. The response ratio is 51.7 percent only. One of the main reason for the low response ratio was due the targeted respondents must be married status. The respondents with status of single, divorce, and widow were excluded in the survey screening.

3.2 Measurement

The single item measurement of marriage satisfaction is popular in researches on relationship between marital satisfaction and debt (Dew, 2007, 2008). In this study the respondents were asked to rate their overall marriage satisfaction by answering the question as: "Overall, please rate your level of satisfaction with your marriage?". The choices of response were scaled from "1" to "10". "1" indicates "extremely dissatisfied" while "10" indicates "extremely satisfied". Then, the measurement of household indebtedness was based on household debt to income ratio. Even there is no consensus in measuring indebtedness in the recent literatures, the debt to income ratio can be a better measurement in this study due to its potential indication of credit constraint in the future (Kukk, 2016). When household income is stable, high level of debt to income ratio may constraint household from future borrowing. Thus, the respondents in this study were asked to report on the total amount of household debt payment each month. In this monthly debt payment, credit card loan was not included due to its measurement differences. Then the overall amount household debt divided by household's monthly income. In order to analyze the impact of different types debt on marital satisfaction, other than the overall debt, monthly repayment for certain type of household debt like: home loan and personal loan were also reported. For each type of debt, the debt to income ratio was calculated by dividing the household income from particular type of debt.

Furthermore, the common demographic variable such as household income, age, religion, gender, education, and employment were included in the survey. Some other variables such financial wellness, number of children which below 18 years old and house status were also measured. The house status mainly differentiates whether the housing loan has been fully paid.

[†]An EBs is "a land area which is artificially created and consists of specific boundaries".

[‡]For each EB, the living quarters have been set where on average calculation, one EB contains about 80 to 120 living quarters with approximately 500 to 600 persons (Population and Housing Census 2010 Preliminary Count Report).

3.3 Descriptive statistics

From the 310-sample household collected in the area of Klang Valley Malaysia, the descriptive result is presented as in Table 1. Among the 310 respondents which over half were male. Majority of them between the ages of 25 to 54 years old. Islam is the most widely professed religion among the respondents. There is 48.1 percent of respondents are Muslims, 26.1 percent are Buddhists, 10.3 percent are Christians and 15.5 percent other religions such as Hindu, Daoism, etc.. In term of education level, about 60 percent of the respondents had at least a diploma or degree. Over 83 percent of them were in employment, and 25 percent earning monthly incomes of less than RM4000. Most of the households have 3 or fewer children below the age of 18 years old. There are 40 percent of the household already paid their house fully. The rest either still paying or renting a house. The financial situation and financial commitment of the respondents are not very sound. More than 30 percent of the respondent have expenses more than income, more than 50 percent struggling with financial commitments.

In this research, household debt is reflected by the financial loans taken by respondents from financial institutions. Specifically, the level of debt is measured by the monthly amount of loan repayments that have to be made by the households. As shown in Table 2, most of the households (83%) have loan repayments to be made monthly. The monthly loan payment includes loans for house, vehicle, personal, education, and others but not a credit card. When the specific type of loan is considered, at least half of the respondents (55%) were making repayments for housing loans. Around one-fifth of the family took out personal loans of which they were making monthly repayments at the time of the survey.

Lastly, Table 3 shows a summary of marriage satisfaction. The overall results appeared to be positive as most of the respondents were satisfied with their marriage. Almost one-tenth of the respondents rated their marriage satisfaction below 6. Nonetheless, 50 percent of the respondents rated 9 and 10 to show the satisfaction level of their marriage.

Table 1. Descriptive statistics of demographics

		N	%			N	%	
Gender	Male	172	55.5	# of children <18 years old	0	87	28.1	
	Female	138	44.5		1	66	21.3	
Age (years)	Below 25	2	0.6		2	91	29.4	
	25 - 34	57	18.4		3	53	17.1	
	35 - 44	107	34.5		4	7	2.3	
	45 - 54	103	33.2		5	2	0.6	
	55 and above	41	13.2	6	4	1.3		
Religion	Islam	149	48.1	House Status	Fully paid	124	40	
	Buddhist	81	26.1		Still paying / rent	186	60	
	Christian	32	10.3	Financial wellness	Financial situation	Expenses are much higher than income	35	11.3
	Others	48	15.5			Expenses are higher than income	68	21.9
Education	Secondary or lower	131	42.3			Expenses are about the same as income	125	40.3
	Diploma	81	26.1			Expenses are lower than income	73	23.5
	Bachelors / Professional	71	22.9			Expenses are much lower than income	9	2.9
	Masters / Ph.D.	27	8.7	Ability to pay all bills and financial commitments	Having real financial problems and falling behind	15	4.8	
Employment status	Not employed	52	16.8		Sometimes struggle without any problems	147	47.4	
	Employed	258	83.2	Income (RM)	Below 1,000	1	0.3	
Income (RM)	1,000 – 1,999	11	3.6		1,000 – 1,999	11	3.6	
	2,000 – 2,999	31	10.0		2,000 – 2,999	31	10.0	
	3,000 – 3,999	33	10.6		3,000 – 3,999	33	10.6	
	4,000 – 4,999	61	19.7		4,000 – 4,999	61	19.7	
	5,000 – 5,999	51	16.5		5,000 – 5,999	51	16.5	
	6,000 – 7,999	35	11.3		6,000 – 7,999	35	11.3	
	8,000 – 11,999	55	17.7		8,000 – 11,999	55	17.7	
	12,000 and above	32	10.3	12,000 and above	32	10.3		

Table 2. Household debt

		All		Housing loan		Personal loan	
No loan	53	17%	140	45%	242	78%	
With loan	257	83%	170	55%	68	22%	

Table 3. Summary of marriage satisfaction

Index	1	2	3	4	5	6	7	8	9	10	Overall
Frequency	2	1	4	6	15	20	25	77	51	109	310
Percentage	0.6%	0.3%	1.3%	1.9%	4.8%	6.5%	8.1%	24.8%	16.5%	35.2%	100%

4. Results

The robust ordinary least regression was applied in this study to examine the relationship between household debt and marriage satisfaction. In Table 4, the results suggested that a higher level of household debt ratio to income is negatively related to marital satisfaction in the case of urban households in Malaysia. Like the family stress model expressed the economic stress may have a direct impact on the marriage relationship, the married couple may experience a lower level of marriage satisfaction because of the high debt burden. Unlike the argument by Tay et al., (2017) that suggest the financial worry mediates the relationship between debt and life satisfaction. Such a relationship is valid even financial wellness and other demographic variables are controlled. The one-unit increase of debt to income ratio may lead to 0.9 unit fall of marriage satisfaction level.

Obviously, financial wellness also shows a significant impact on marriage satisfaction for couples in Klang Valley Malaysia. The better is the financial wellness, the high marriage satisfaction level they will experience. The housing status also shows the impact on marital satisfaction. The couples who have paid all their housing loans experience significantly higher marriage satisfaction compare to couples who are still paying or renting a house. More interestingly, there is a clear difference on the marital satisfaction between Muslim and non-Muslim respondents. Compare to Muslim respondents, the non-Muslim respondents such as Buddhist, Christian, and others are less satisfied in marriage.

Table 4. Impact of household debt on marriage satisfaction

Variables	Coef.	t	Variables	Coef.	t
Debt-to-Income Ratio	-0.900**	-1.710	Household Income	-0.015	-0.240
Financial Wellness	0.332**	2.000	# of Children below 18	0.077	1.030
House fully paid	-0.407**	-1.800	Buddhist	-0.452**	-1.710
Gender	0.003	0.010	Christian	-1.039***	-2.770
Education	0.033	0.300	Other Religions	-0.919***	-2.890
Age	0.009	0.690	Constant	7.999***	6.980
Employment	-0.386	-1.160			

Note: **p < 0.05, ***p < 0.01

Furthermore, in the purpose of extending the analysis, we also examined the relationship between different types of loans with marriage satisfaction in the Klang Valley Malaysia. The respondent has reported monthly payment amounts for the housing loan and the personal loan. Based on the amount of specific loan type, we have calculated the debt to income ratio for housing loan and personal loan. The same robust ordinary least square analysis was applied with the same control variable as in Table 4. The result of the two regressions is presenting in Table 5. Each coefficient column represents the relationship between each type of loan with other control variables on marriage satisfaction. We can find that the unsecured personal loan is the loan which a significant relationship with marriage satisfaction for the case of urban married couples in Klang Valley Malaysia. The negative relationship suggests that the higher personal loan to income ratio may associate with lower marriage satisfaction. The one percent increase of personal loan to income ratio may lead to a 3.0 unit fall of marriage satisfaction. Such result is much more high compare to 0.9 units for overall household debt. However, the regression result also shows the housing loan is not significantly associate with marriage satisfaction from the sample data. As studies suggest the housing loan as the secured loan that has less impact on personal wellbeing, in the case of a married couple the meaning may much more. As the secured house is one important element for family relationships, couples may happily pay for the housing loan.

Table 5. Impact of Housing loan, vehicle loan, and personal loan on marriage satisfaction

Variables	Model 1		Model 2	
	Coef.	t	Coef.	t
Housing Loan	-1.061	0.928	-	-
Personal Loan	-	-	-3.005**	1.364
Financial Wellness	0.361**	0.163	0.308**	0.164
House fully paid	-0.430**	0.232	-0.323	0.219
Gender	-0.024	0.232	-0.052	0.230
Education	0.011	0.106	0.004	0.105
Age	0.010	0.013	0.007	0.013
Employment	-0.459	0.325	-0.428	0.319
Household Income	-0.008	0.063	-0.007	0.063
No. of Children below 18 years oold	0.065	0.078	0.059	0.080
Buddhist	-0.448**	0.264	-0.562**	0.263
Christian	-1.101***	0.380	-1.109***	0.359
Other Religions	-0.908***	0.318	-0.969***	0.315
Constant	7.872***	1.137	8.194***	1.130

Note: **p < 0.05, ***p < 0.01

5. Conclusion and recommendations

Borrowing loans from financial institutions to finance consumption became common practice for Malaysian households. Households need to borrow money to purchase certain products beyond their current capability. The loan provided by financial institutions give opportunities for households to ease the current financial burden. However, among the married couples in the goodwill of having a debt to help with easing their financial strains, the debt itself may cause financial distress in a longer period. The relationship of the marriage may be impacted by the indebtedness level. Using the data collected from the

urban household in the Klang Valley Malaysia, this study examined such potential impact. We found that household debt does have a negative association with marriage satisfaction for married couples in Klang Valley Malaysia. Such a relationship is valid even financial wellness and other demographic variables are controlled. The couple with a higher debt-to-income ratio may experience lower marriage satisfaction. Therefore, the strategy in debt financing by married urban couple should take consideration of the implications of debts in their loan borrowing. The financial management within the household should in achieving better wellbeing rather than poorer wellbeing. Moreover, different types of debt also show a different impact on marital satisfaction. The less secured personal debt shows a significant negative relationship with the couple's marriage satisfaction in Klang Valley Malaysia. The results did not suggest the impact of housing loan for our study. The married household head should also be cautious with the type of loan borrowed. The less secured loan may have high potential compare to secured loans in effecting their marital satisfaction.

Moreover, there are a few limitations to this study. This research focuses on households in the Klang Valley, Malaysia only. Even as the findings may be generalized for Malaysian urban households, data from other parts of Malaysia may give a more complete result. The 310-sample data from the Klang Valley is small relative to Malaysia's overall population. A further study on this topic may examine based on larger sample data which also able to include more respondents with various types of debt. The analysis will be able to extend the impact of different types of debt and provide a clearer scenario on the implication of household debt on marital relationships.

References

- Adzis, A. A., Bakar, J. A., & Shahar, H. K. (2018). Factors influencing young adults' debt in Malaysia. *Journal of Business & Retail Management Research*, 12(01), 76–85. <https://doi.org/10.24052/jbrmr/v12is01/fiyadim>
- Bank Negara Malaysia. (2019). *Financial stability and payment systems report 2018*.
- Berger, L. M., Collins, J. M., & Cuesta, L. (2016). Household Debt and Adult Depressive Symptoms in the United States. *Journal of Family and Economic Issues*, 37(1), 42–57. <https://doi.org/10.1007/s10834-015-9443-6>
- Berger, L. M., & Houle, J. N. (2016). Parental Debt and Childrens Socioemotional Well-being. *Pediatrics*, 137(2), e20153059–e20153059. <https://doi.org/10.1542/peds.2015-3059>
- Britt, S., Grable, J. E., Nelson Goff, B. S., & White, M. (2008). The influence of perceived spending behaviors on relationship satisfaction. *Journal of Financial Counseling and Planning*, 19(1), 31–43.
- Brown, S., Taylor, K., & Wheatley Price, S. (2005). Debt and distress: Evaluating the psychological cost of credit. *Journal of Economic Psychology*, 26(5), 642–663. <https://doi.org/10.1016/j.joep.2005.01.002>
- Conger, R. D., Conger, K. J., Elder, G. H., Lorenz, F. O., & Et Al. (1993). Family economic stress and adjustment of early adolescent girls. *Developmental Psychology*, 29(2), 206–219. <https://doi.org/10.1037/0012-1649.29.2.206>
- Conger, R. D., Conger, K. J., Elder, G. H., Lorenz, F. O., Simons, R. L., Whitbeck, L. B., ... Whitbeck, L. B. (1992). A Family Process Model of Economic Hardship and Adjustment of Early Adolescent Boys. *Child Development*, 63(3), 526–541.
- Conger, R. D., Elder Jr., G. H., Lorenz, F. O., Conger, K. J., Simons, R. L., Whitbeck, L. B., ... Melby, J. N. (1990). Linking Economic Hardship to Marital Quality and Instability. *Journal of Marriage & Family*, 52(3), 643–656. <https://doi.org/10.2307/352931>

- Conger, R. D., Rueter, M. A., & Elder Jr., G. H. (1999). Couple Resilience to Economic Pressure. *Journal of Personality and Social Psychology*, 76(1), 54–71. <https://doi.org/10.1037/0022-3514.76.1.54>
- Dew, Jeffrey, & Dakin, J. (2011). Financial disagreements and marital conflict tactics. *Journal of Financial Therapy*, 2(1). <https://doi.org/10.4148/jft.v2i1.1414>
- Dew, Jeffrey. (2007). Two sides of the same coin? The differing roles of assets and consumer debt in marriage. *Journal of Family and Economic Issues*, 28(1), 89–104. <https://doi.org/10.1007/s10834-006-9051-6>
- Dew, Jeffrey. (2008). Debt change and marital satisfaction change in recently married couples. *Family Relations*, 57(1), 60–71. <https://doi.org/10.1111/j.1741-3729.2007.00483.x>
- Dew, Jeffrey. (2011a). Financial Issues and Relationship Outcomes Among Cohabiting Individuals. *Family Relations*, 60(2), 178–190. <https://doi.org/10.1111/j.1741-3729.2010.00641.x>
- Dew, Jeffrey. (2011b). The Association Between Consumer Debt and the Likelihood of Divorce. *Journal of Family and Economic Issues*, 32(4), 554–565. <https://doi.org/10.1007/s10834-011-9274-z>
- Dew, Jeffrey, & Yorgason, J. (2010). Economic pressure and marital conflict in retirement-aged couples. *Journal of Family Issues*, 31(2), 164–188. <https://doi.org/10.1177/0192513X09344168>
- Drentea, P. (2000). Age, Debt and Anxiety. *Journal of Health and Social Behavior*, 41(4), 437–450. <https://doi.org/10.2307/2676296>
- Drentea, Patricia, & Reynolds, J. R. (2012). Neither a borrower nor a lender be: the relative importance of debt and SES for mental health among older adults. *Journal of Aging and Health*, 24(4), 673–695. <https://doi.org/10.1177/0898264311431304>
- Gathergood, J. (2012). Debt and Depression: Causal Links and Social Norm Effects. *The Economic Journal*, 122(563), 1094–1114. <https://doi.org/10.1111/j.1468-0297.2012.02519.x>
- Joo, S. (2008). Personal Financial Wellness. In *Handbook of consumer finance research* (pp. 21–34).
- Khan, H. H. A., Abdullah, H., & Samsudin, S. (2016). The Linkages between Household Consumption and Household Debt Composition in Malaysia. *International Journal of Economics and Financial Issues*, 6(4), 1354–1359.
- Kukk, M. (2016). How did household indebtedness hamper consumption during the recession? Evidence from micro data. *Journal of Comparative Economics*, 44(3), 764–786. <https://doi.org/10.1016/j.jce.2015.07.004>
- Loke, Y. J. (2017). Financial Vulnerability of Working Adults in Malaysia. *Contemporary Economics*, 11(2), 205–218. <https://doi.org/10.5709/ce.1897-9254.237>
- Mistry, R. S., Lowe, E. D., Benner, A. D., & Chien, N. (2008). Expanding the family economic stress model: Insights from a mixed-methods approach. *Journal of Marriage and Family*, 70(1), 196–209. <https://doi.org/10.1111/j.1741-3737.2007.00471.x>
- Nazni, N., Zaherawati, Z., Sawal, M. Z. H. M., Ngah, K., & Hussin, Z. H. (2012). Bankruptcy among Young Executives in Malaysia. *International Conference on Economics Marketing and Management*, 28, 132–136.

- Nye, F. I. (1980). Family Mini Theories as Special Instances of Choice and Exchange Theory. *Journal of Marriage and Family*, 42(3), 479–489. <https://doi.org/10.2307/351893>
- Ochsmann, E. B., Rueger, H., Letzel, S., Drexler, H., & Muenster, E. (2009). Over-indebtedness and its association with the prevalence of back pain. *BMC Public Health*, 9, 451. <https://doi.org/10.1186/1471-2458-9-451>
- Papp, L. M., Cummings, E. M., & Goeke-Morey, M. C. (2009). For richer, for poorer: Money as a topic of marital conflict in the home. *Family Relations*, 58(1), 91–103. <https://doi.org/10.1111/j.1741-3729.2008.00537.x>
- Rani, M. S. A., Nordin, S. H. B., Chin Ching Lau, Sheng Ling Lim, & Zhen Shing Siow. (2017). Rich debt, poor debt: assessing household indebtedness and debt repayment capacity. *Bank for International Settlements Papers*, (91), 153–168. Retrieved from <http://www.bis.org/publ/bppdf/bispap91.pdf#page=167>
- Rick, S. I., Small, D. A., & Finkel, E. J. (2011). Fatal (fiscal) attraction: Spendthrifts and tightwads in marriage. *Journal of Marketing Research*, 48(2), 228–237. <https://doi.org/10.1509/jmkr.48.2.228>
- Sanchez, L., & Gager, C. T. (2000). Hard living, perceived entitlement to a great marriage, and marital dissolution. *Journal of Marriage and Family*, 62(3), 708–722. <https://doi.org/10.1111/j.1741-3737.2000.00708.x>
- Siti, B., Borhan, H., Ling, L. S., Khairul, M., & Abd, M. (2018). *Indebted to Debt: An Assessment of Debt Levels and Financial Buffers of Households*.
- Skogrand, L., Johnson, A. C., Horrocks, A. M., & DeFrain, J. (2011). Financial Management Practices of Couples with Great Marriages. *Journal of Family and Economic Issues*, 32(1), 27–35. <https://doi.org/10.1007/s10834-010-9195-2>
- Tay, L., Batz, C., Parrigon, S., & Kuykendall, L. (2017). Debt and Subjective Well-being: The Other Side of the Income-Happiness Coin. *Journal of Happiness Studies*, 18(3), 903–937. <https://doi.org/10.1007/s10902-016-9758-5>
- Turunen, E., & Hiilamo, H. (2014). Health effects of indebtedness: a systematic review. *BMC Public Health*, Vol. 14, p. 489. <https://doi.org/10.1186/1471-2458-14-489>
- Yusof, S. A., Rokis, R. A., & Jusoh, W. J. W. (2015). Financial fragility of urban households in Malaysia. *Jurnal Ekonomi Malaysia*, 49(1), 15–24. <https://doi.org/10.17576/JEM-2015-4901-02>