Impact of Self-Control, Financial Literacy and Financial Behavior on Financial Well-Being

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Abstract

Financial knowledge is empowering the new generation of the 21st century in the era of transformative marketing (Kumar, 2018), which leads to the well-planned financial structure for long terms. However, it is imperative to know that on what scales they are managing their budgets. Understanding the impact of selfcontrol, financial literacy, and financial behavior is very vital for living a successful life (Sarstedt *et al.*, 2017). The literature shows, people with good self-control and financial literacy tend to behave well compared to people with less self-control and financial literacy. This study examines the relationship between self-control financial literacy, financial behavior and financial wellbeing. A survey was conducted on 416 people from educational institutions, corporate sectors and food courts in Pakistan to empirically examine the impact of self-control and financial literacy on financial behavior and financial well-being of people. Better self-control and financial literacy lead to greater financial well-being. This research paper concludes that self-control and financial literacy affect financial well-being through financial behavior. Financial literacy has a significant direct impact on financial wellbeing, however the direct impact of self-control on financial well-being is insignificant. Impact of financial behavior on financial well-being is stronger than the impacts of financial literacy and self-control on financial well-being. This paper will be useful for economists and companies in Pakistan to better understand consumer market and to make decisions accordingly.
Keywords: Self-control; Financial literacy; Financial behavior; Financial well-weing; Transformative marketing.

1. Introduction

Humans make mistakes because they are forced, by their psyche, to consider many options while making decisions. Human psychology is the key to making desirable or regrettable decisions whether these decisions are financial or non-financial. Choosing an option can lead to benefit or loss, satisfaction or regret, whether that option is considered perfect at the time or not. Sometimes people make financial decisions such as spending in profit making stocks or spending money very consciously where it's needed but sometimes those decisions lead to loss. People make, but not all the time, bad financial decisions whether in saving or investing. People save too less for retirement than they should (Bucher-Koenen, 2011). People don't make necessary payments instead they spend on unnecessary things which lead to regretting in the future (Abendroth and Diehl, 2006). However, with evolution of humanity and revolution of technology, the opportunities to learn the financial literacy and selfcontrol have become easily available. Due to online available contents, a smartphone which has the ability to restrict someone from financial mistakes, the risk of impulsive decision-making behavior can be controlled (Farooq, 2018; Kumar, 2018; Meyer, 2018; Varadarajan, 2018). Marshmallow Theory suggests that better selfcontrol leads to better well-being and bright future (Angeles and Uni, 1972).

Previously, most work is done on understanding cognitive factors which affect financial behavior and very less work is done on non-cognitive factors such as self-control, responsibilities and societal values (Lusardi, 2008). Recent research is concerned with understanding the role of financial behavior in linking individual selfcontrol and financial well-being (Kahneman and Krueger, 2010). To cover the gap in self-control and financial literacy the

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authors studied the role of self-control, financial literacy and financial behavior on financial wellbeing of Pakistani population.

1.1. Self-control and Financial Behavior

Self-control affects financial behavior of all types of economic agents. Individual is considered as an organization when it comes to self-control (Thaler and Shefrin, 1981). People tend to get confused by conflicts between their actions and feelings, but inner strength develops self-control (Baumeister, 2002). Biljanovska and Palligkinis (2018), used three components of self-control; planning, monitoring and commitment and found that self-control is strongly associated with household net wealth and financial distress. Self-control helps in decision making, strong will-power and success in future to be rich or influential. Lack of self-control leads to irrational decision making, under-confidence and behavioral disasters.

Financial future of people depends on how they control themselves in present and make the right decisions. People usually delay their targets, sometimes they try to restrict their behavior by imposing strict rules and deadlines to achieve greater performance, however too strict deadlines can often lead to lower self-control because these rules are not set optimally (Ariely and Wertenbroch, 2002). Self-control problem is also explained by Shefrin and Thaler (1988) in Behavioral Life-Cycle (BLC) Hypothesis. According to BLC hypothesis, people focus on current problems and benefits rather than long term advantages. People make mental accounts to use available resources by dividing wealth into three classes such as current income, current assets and future income (Thaler, 1985). People lack control over their income and spend more on current requirements rather than saving more for retirement and other future needs (Moffitt *et al.*, 2011).

Mischel and fellow researchers conducted a marshmallow experiment on students of a school. They gave snacks to students and told them not to eat for next 15 minutes to receive a bigger snack, to see which students have self-control and which not. More than 60% students failed to wait for 15 minutes to get another snack and ate their snacks. Students who waited for 15 minutes received bigger snacks and felt rewarded. This experiment proved that people often cannot control their cognitive trap and they take decisions for short term gratitude, which are less rewarding (Angeles and Uni, 1972). Later studies showed that students who waited for bigger reward were most successful in life with more income and assets and were less addictive to drugs and other bad habits because they had better self-control. People who have good self-control take good financial decisions (Moffitt *et al.*, 2011).

1.2. Self-Control, Financial Behavior and Financial Well-Being

People who have better self-control possess better financial behavior and can take good care of their financial resources. They optimally spend their resources (Kiyosaki, 2012). They don't spend money on unnecessary items and useless activities. People with good self-control were leaders for many years and are leading the world today because self-control leads to wise decisions and better financial well-being. Households with saving rules save more than those who don't have self-control. People who have cognitive abilities always manage their finances to achieve set goals and foreseeable expenses (Kahnemann, 2011). Thaler and Shefrin have classified individuals in two categories as per their financial self-control behavior, planners and doers. Planners are concerned with life time utility and doers are selfish, myopic and exist only for short time period (Thaler and Shefrin, 1981).

"In 2015, the Consumer Financial Protection Bureau (CFPB) ("Financial well-being The goal of financial education (2015) The goal of financial education," 2015) published a report focusing on financial well-being defined as "a state of being wherein you: Have control over day-to-day, month-to-month finances;

Have the capacity to absorb a financial shock; Are on track to meet your financial goals; and

Have the financial freedom to make the choices that allow you to enjoy life.""

Financial well-being is an objective which must be met through self-control to live wealthy and healthy, financially and emotionally, strong life. Feeling of lower self-control lead to anxiety in one's own financial situation. People often feel anxious and more concerned, while spending their money, with their financial wellbeing when they make decisions based on self-control and financial behavior (Oechssler *et al.*, 2009).

Optimism also has an impact on financial behavior and financial well-being. Optimistic people work harder and harder to achieve desired targets in life and are more concerned about their future well-being. Moderately optimists show reasonable financial behavior but extremely optimists show aggressive financial behavior which is not considered helpful for financial well-being (Puri *et al.*, 2007). Stromback et al. conducted a research, on Swedish population, on how self-control predicts financial well-being and found that behavioral life cycle does not only apply on savings behavior only, but it also affects general financial behaviors as well. People who have good self-control save more money and have better current and future financial situation (Strömbäck *et al.*, 2017).

The Financial factors affect rational thinking more extensively than non-financial factors. These psychological factors affect self-control and financial behavior leading to financial well-being. In this paper the authors examine the impact of self-control and financial literacy on financial behavior and self-control. Lusardi (2008), in conference paper explores that people with lower financial literacy are not well informed about savings plans and retirement plans. People without financial literacy cannot make rational decisions because of the lack of enough information and financial knowledge. Both the teenagers and the adults lack basic knowledge for financial decision making (Mandell and Klein, 2009). The ack of self-control and financial illiteracy are positively associated with consumer's indebtedness (Gathergood, 2012).

1.3. Hypotheses

This study aims to validate that self-control and financial literacy affect financial behavior and financial wellbeing. We will also investigate financial behavior's impact on the financial well-being. Figure-1 shows the conceptual framework of the study, which is concluded after analysis of literature. The framework of the study has two independent variables and one mediating variable to measure the financial well-being. Based on the frame work this study has four hypotheses; First, variable self-control has positive impact on financial well-being through financial behavior, in this hypothesis, impact of self-control on financial behavior and impact of financial behavior on financial well-being will be investigated separately. Second, self-control has direct positive impact on financial well-being. Third, financial literacy has positive impact on financial well-being through financial behavior. Fourth, financial literacy has direct positive impact on financial well-being.

Figure-1. Conceptual Framework of the study
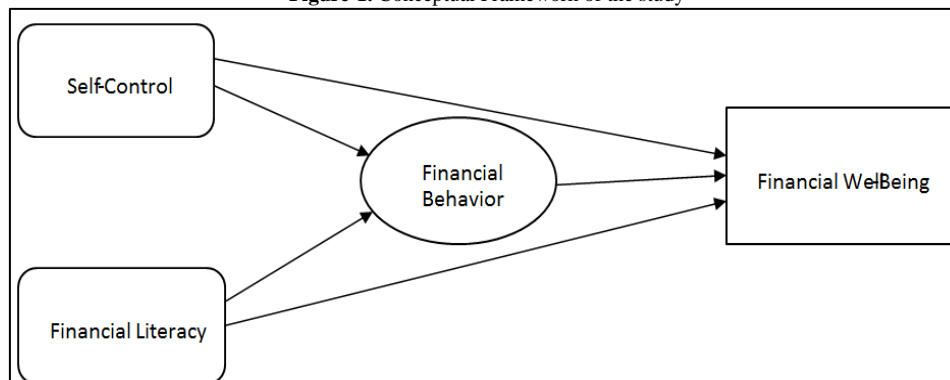
The contribution of this study is classified in three different categories. First, this study examines impact of non-cognitive factors in financial decision making of individuals. Second, this study is unique in examining how self-control and financial literacy affect financial behavior. Third, we examined how self-control affect financial situation of an individual by studying financial behavior and financial well-being.

2. Research Methodology

This is a quantitative study (Creswell, 2009). To measure the impact of self-control, financial literacy and financial behavior a close-ended questions has been adapted from the previous studies based on five point (Likert, 1932). Based on first time data collection the results have been concluded as done in several earlier cross sectional studies (Buzdar *et al.*, 2016; Khalil-ur-rehman and Farooq, 2018; Qadir and Farooq, 2018; Yasmin and Buzdar, 2018; Younas *et al.*, 2018).

2.1. Sample and Procedure

We used Stratified Random Sampling Technique (SRST) (Sekaran and Bougie, n.d) to collect the data from educational institutes, corporate sector and food courts in Pakistan. A questionnaire was developed and distributed to Pakistani population, through google docs and physical effort by the authors. G.power software was used for calculating sample size which was 164 (Erdfelder *et al.*, 2009) and a sample of 384 was required as per (Krejcie and Morgan, 1970), but we distributed 600 questionnaires and collected 463 responses out of which 416 responses were used for this study.

2.2. Questionnaire

Total number of 19 question items were used for data collection. Five items for self-control variable (Tangney *et al.*, 2004) which are "I don't feel difficult to break bad habits (SC1), I do not get distracted easily (SC2), I'm good at resisting temptation (SC3), I do not feel regret after doing things which are just good at the moment (SC4), I do not act without thinking through all the alternatives (SC5)". First two and last two questions were rephrased in negative sentences, for respondents to better understand and provide unbiased response, rather than reversing the results. These five items were only used in keeping in mind the understanding and demographic characteristics of targeted population rather than using all items which were initially used by Tangney *et al.* (2004). Five items for financial behavior which are, "Comparison shopped when purchasing a product or service (FB1), Paid all your bills on time (FB2), Kept a written or electronic record of your monthly expenses (FB3), Stayed within your budget or spending plan (FB4) and Paid off credit card balance in full each month (FB5)" adapted and modified according to the targeted population from (Dew and Xiao, 2011), out of which two items were deleted due to unsatisfactory outer loadings Hulland (1999), as only 20% items should be deleted Sarstedt *et al.* (2017). Four items for financial literacy (Bucher-Koenen, 2011; Strömbäck *et al.*, 2017) which are, "You understand financial services provided by financial institutions (FL1), Assume, you deposit RM 100,000 in a bank @ 10% interest rate? You will get RM 20,000 excess to your actual deposit in 2 years (FL2), Assume, you deposited RM 100,000 in a bank @ 10% interest rate and inflation rate is 11%. This deposit is a good move (FL3) and Assume, you received a loan of RM 10,000 from a bank for 1 year and paid back RM 500 above actual money. 05% is the interest rate (FL4)". Five items, "I can handle a major unexpected expense (FWB1), I have money left over at the end of the month (FWB2), I feel

secure in my current financial situation (FWB3), I feel confident about my financial future (FWB4) and I feel confident about having enough money to support myself after retirement, no matter how long I live (FWB5)," were used for financial well-being from Consumer Financial Protection Bureau ("Financial well-being : The goal of financial education," 2015). Measurement scale of 1 to 5 was used, 1 for strongly disagree and 5 for strongly agree, first introduced by Likert (1932).

3. Results

Multiple statistical tools are used for data analysis including Microsoft Excel, SPSS IBM (2012), and SmartPLS (Joseph *et al.*, n.d-a; Sarstedt *et al.*, 2017). Microsoft Excel is used for data cleansing and removal of outliers and then SPSS is used for demographics Javed *et al.* (2014).

3.1. Descriptive Statistics

Descriptive statistics are shown in table 01 below. 21.2% (n=88) of our respondents lie within the range of 18 to 25 years, 28.8% (n=120) are within the range of 26 to 35 years, 38.5% (n=160) are in 36 to 45 years of age and 11.5% (n=48) are above 45 years of age. 59.6% (n=248) male and 40.4% (n=168) are female respondents. Out of our 416 respondents; 4.8% (n=20) have monthly income below PKR: 15,000, 24% (n=100) have monthly earnings in between PKR: 15,001 to 30,000. 45.2% (n=188) have monthly earnings of PKR: 30,001 to 70,000, 24% (n=100) have monthly earnings in between PKR: 70,001 to 100,000 and 1.9% (n=8) have monthly earnings more than PKR: 100,000. Lastly, 35.6% (n=148) of the respondents are undergraduate, 45.2% (n=188) are graduate and 19.2% (n=80) are postgraduate.

Table-1. Demographics

Gender	Count of Respondents	%
Male	248	59.6%
Female	148	40.4%
Grand Total	416	100%
Age	**Count of Respondents**	**%**
18 to 25	88	21.2%
26 to 35	120	28.8%
36 to 45	168	38.5%
45 and Above	48	11.5%
Grand Total	416	100%
Monthly Income	**Count of Respondents**	**%**
below 15,000	20	4.8%
15,001 to 30,000	100	24.0%
30,001 to 70,000	188	45.2%
70,001 to 100,000	100	24.0%
above 100,000	8	1.9%
Grand Total	416	100%
Education	**Count of Respondents**	**%**
Undergraduate	148	35.6%
Graduate	188	45.2%
Postgraduate	80	19.2%
Grand Total	416	100%

3.2. Confirmatory Factor Analysis

For confirmatory factor analysis, Smart PLS 3.0 is used. For Construct Validity and Reliability, and

Discriminant Validity; Smart PLS is extensively used in social sciences (Abdurraham *et al.*, 2018; Abdurrahaman *et al.*, 2018; Anjum *et al.*, 2018; Farooq and Jabbar, 2014). Table 02 shows detailed Structural Equation Modeling results. Outer Loadings against each item can be above 0.4 if AVE scores are greater than 0.50 (Hulland, 1999). Outer loadings scores should be above 0.708 (Sarstedt *et al.*, 2017). Our results show outer loadings above 0.40 with AVE above 0.50, that means the outer loadings results are acceptable. Values of internal consistency (Cronbach Alpha) should be higher, higher the better (Cronbach and LJ, 1971) but it is suggested that Composite Reliability (CR) should be used for measuring internal consistency (McNeish, 2017) because Cronbach Alpha assumes that all indicators of a construct are equally related to that construct (Werts *et al.*, 1974) and it tends to underestimate the internal consistency reliability (Joseph *et al.*, n.d-b). Values of composite reliability should be greater than 0.70 and less than 0.90 (McNeish, 2017). Our findings of CR are above 0.70 and below 0.90, accepted again. Average Variance Extracted (AVE) explains the variance in indicators of a construct, it should be equal to or greater than 0.50 (Sarstedt *et al.*, 2017). Our results are above 0.50. R^2 shows the impact of independent variables (IV) on dependent variable (DV), greater the better (T. Ramayah *et al.* 2016). The results show that the impact of IVs on Mediator is 0.205 which is very less. The collective impact of IVs and Mediator on DV is 0.415, which means that the variance in dependent variable caused by independent variables is 0.415. Result for the direct impact of selfcontrol on financial well-being are highely insignificant so that hyposthesis is not included in the analysis.

Table-2. Construct Reliability and Validity

| Items	Outer Loadings	Cronbach's Alpha	composite Reliability (CR)		Average Extracted(AVE)	VarianceR²
SC2	0.867		SCI		0.853	0.899
SC3	0.780				0.863	
SC4	0.717				0.642	
SC5	0.781				0.514	
FL1	0.406				0.711	
FL2	0.653	0.773	0.797		0.575	0.205
FL3	0.769	0.799	0.880			0.415
FL4	0.934	0.813	0.869			
FB1	0.926					
FB2	0.869					
FB3	0.722					
FWB1	0.706					
FWB2	0.593					
FWB3	0.860					
FWB4	0.838					
FWB5	0.764					

3.3. Discriminant Validity

HTMT ratios show the correlations between two variables (Henseler *et al.*, 2015). HTMT values should not be above 0.85 (Kline, 2011) or 0.90 (Gold *et al.*, 2001). Our results are within the thresholds as shown in the table 03 and figure 02.

Table-3. Discriminant Validity – Heterotrait Monotrait (HTMT)

	Financial Behavior	Financial Literacy	Financial Well-being	Self-Control
Financial Behaviour Financial Literacy	0.257			
Financial Well-being	0.708	0.323		
Self-Control	0.433	0.163	0.437	

Figure-2. Confirmatory Factor Analysis
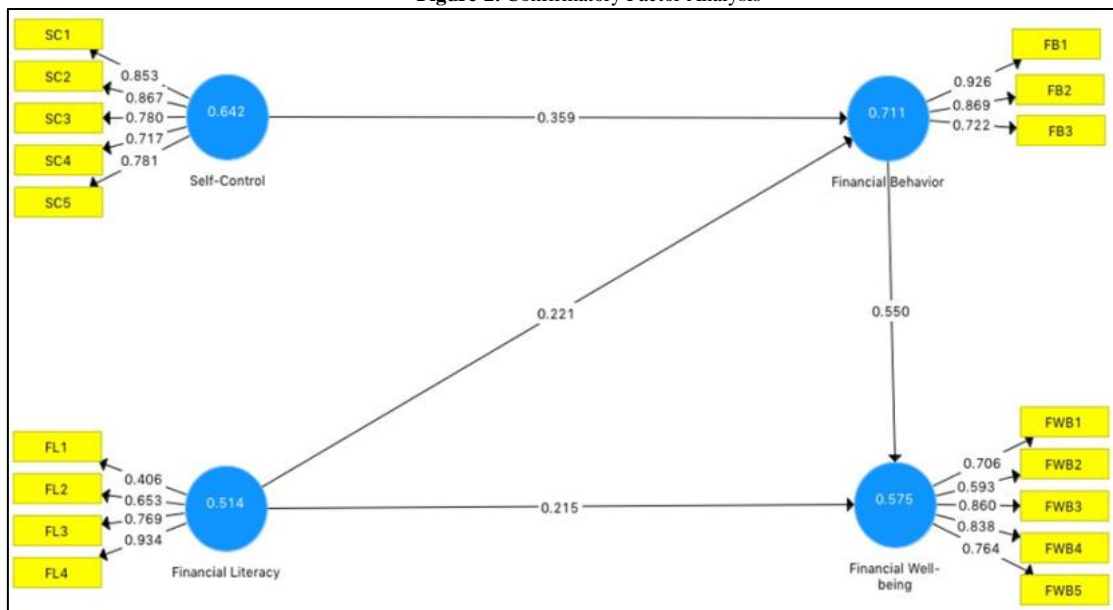
3.4. Bootstrapping

After conducting reliability and validity tests, hypotheses are tested by using bootstrapping tool in Smart PLS (Sarstedt *et al.*, 2017). Results show that financial behavior and financial literacy have direct impact on financial well-being. Financial literacy and self-control affect financial well-being of a person through financial behavior. Hence, our all hypotheses are supported.

Table-4. Bootstrapping Summaries

		Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Supported?
Financial Behavior Well-being	-> Financial	0.563	0.037	15.207	0.000	Yes
Financial Literacy Behavior	-> Financial	0.227	0.043	5.286	0.000	Yes
Financial Literacy Well-being	-> Financial	0.224	0.047	4.756	0.000	Yes
Self-Control -> Financial Behavior		0.361	0.046	7.855	0.000	Yes

4. Discussion and Conclusion

Self-control affects people's financial behavior and financial well-being. People with good self-control save more money for their future and have better chances of success in future (Biljanovska and Palligkinis, 2018; Ser- *et al.*, 1973; Strömbäck *et al.*, 2017). Initially our prime motive in this study was to find a link between self-control and financial well-being of Pakistani peoples, but the data showed that self-control has no direct impact on financial well-being. Self-control affects financial well-being only through financial behavior. The impact of financial behavior on financial well-being is more than the impact of self-control on financial behavior. Though the results of self-control tests are not as were expected to be. In Pakistan, there may be some other factors which affect self-control such as gender, income, education and country economy etc. Research on self-control been done many times, now researches need to the control and moderating factors to accurately analyze the relation between self-control and financial behavior. More importantly, self-control should have an impact on financial well-being, but our study did not find any such impact, that might be because of above mentioned control variables and moderators. Financial literacy also influences financial well-being directly and indirectly through financial behavior. Our questionnaire items were from authentic papers but still R^2 of our findings are low, for both financial behavior and financial well-being, which show that there is a need to guide people about self-control and financial literacy. If government and other financial and economic institutions start programs to guide people how to invest/spend on daily life needs and save for retirement, then people's savings will increase, and people will be happier in long term.

There is one more problem for consumers is that in the era of transformative marketing, strategists of big companies have become more knowledgeable and powerful to form new strategies of marketing and about how to use people's psychology and weaknesses to increase company revenues. Transformative marketing strategy is very good for companies to develop and grow more rapidly and successfully than ever before (Kumar, 2018), but buyers are being trapped into buying more and more without realizing if one even needs the stuff or not. There is war going on between marketers and economists. Marketers are trying to sell their products whether consumers need them or not, and economists are trying to guide consumers to control their intuitive thinking and to buy only what is necessary. There is a strong need to educate people about how to spend. Policy makers need to focus on financial intelligence of individuals because financially intelligent people spend money for earning more money, not just to spend on luxuries or useless things when they do not earn enough income (Kiyosaki, 2012).

5. Limitations

This survey was self-administered and was distributed to respondents in corporate sector, educational institutions and food courts of Pakistan. The data suffered the issue of desirability of respondents to answer because out of 600 distributed questionnaires, only 416 were useful. People simply do not want to respond and if they do, sometimes they do not answer all the questions. Though we chose the survey items very carefully but there were some respondents who did not understand the questions. Maybe it's needed for researchers to pay the respondents to get complete and fair answers.

6. Conclusion

An individual is an organization and the concept of self-control is based on individual intertemporal choices (Thaler and Shefrin, 1981). Our results conflict the fundamental understanding of self-control as a main factor in irrational consumer decisions. There is a need to conduct such study on larger scale, also the limitations should be avoided. Self-control does affect well-being but only through financial behavior. People with good self-control and financial literacy have more chances of success and have more confidence to handle their retirement expenses. Understanding the role of self-control and financial literacy in financial well-being is very important. Humans can alter their own outcomes by better understanding psychology for the success and diversity of behavior. Selfcontrol and financial literacy represent human resistance to temptation. Temptation to those decisions on which one may regret later, but by understanding psychology and its impact on daily life routines, one can increase the chances of making successful decisions. Factors related to self-control and financial literacy are needed to be understood carefully and clearly. Factors such as one's personality traits, personal SWOT analysis and specified goals. Self-control and financial literacy can be profitable for manufacturers and retailers, but for customers its always ill-fated

(Baumeister, 2002). Consumers need to study and understand Prospect Theory, to better understand decision making, proposed by Amos Tversky and Daniel Kahneman (Kahnemann, 2011; Tversky and Kahneman, 1992).

References

Abdurraham, D. T., Owusu, A., Soladoye, B. A. and Kalimuthu, K. R. (2018). Celebrity-brand endorsement: A study on its impacts on generation y-ers in Nigeria. *Asian Journal of Scientific Research,* 11(3): 415–27. Available: https://doi.org/10.3923/ajsr.2018.415.427

Abdurrahaman, D. T., Owusu, A. and Soladoye, B. A. (2018). Factors motivating students ' intention to use enterprise content management system, A study of limkokwing university students ' portal factors motivating student s ' intention to use enterprise content management system, A study of Limkokwing Universit.

Abendroth, L. J. and Diehl, K. (2006). Now or never: Effects of limited purchase opportunities on patterns of regret over time. *Journal of Consumer Research,* 33(3): 342–51. Available: https://doi.org/10.1086/508438

Angeles, L. and Uni, S. (1972). Cognitive and attentional mechanisms in delay of gratification 1. 21(2): 204–18.

Anjum, T., Ramzani, S. R., Farrukh, M., Raju, V., Nazar, N. and Shahzad, I. A. (2018). Entrepreneurial intentions of Pakistani students, The role of entrepreneurial education, creativity disposition, invention passion and amp, passion for founding. *Journal of Management Researc,* 10(3): 76. Available: https://doi.org/10.5296/jmr.v10i3.13253

Ariely, D. and Wertenbroch, K. (2002). Procrastination, Deadlines, And performance, Selfcontrol by precommitment. *Psychological Science,* 13: Available: http://journals.sagepub.com/doi/pdf/10.1111/1467-9280.00441

Baumeister, R. F. (2002). Yielding to temptation: Self-control failure, impulsive purchasing, and consumer. Source. *Journal of Consumer Research,* 28(4): 670–76. Available: https://doi.org/10.1086/338209

Biljanovska, N. and Palligkinis, S. (2018). Control thyself : Self-control failure and household wealth. *Journal of Banking and Finance,* 92: 280–94. Available: https://doi.org/10.1016/j.jbankfin.2016.10.010

Bucher-Koenen, T. L., A. (2011). Financial literacy and retirement planning in Germany. *Journal of Pension Economics and Finance,* 10(4): 565–84. Available: https://doi.org/10.1017/S1474747211000485

Buzdar, M. F., Janjua, S. Y. and Khurshid, M. A. (2016). Customer-based brand equity and firms' performance in the telecom industry. *International Journal of Services and Operations Management,* 25(3): Available: https://doi.org/10.1504/IJSOM.2016.079516

Creswell, J. W. (2009). Research design qualitative, quantitative, and mixed methods approaches. Available: http://www.ceil-conicet.gov.ar/wp-content/uploads/2015/10/Creswell-Cap-10.pdf

Cronbach and LJ (1971). Test validation. *Educational Measurement*: Available: https://ci.nii.ac.jp/naid/10017369036/

Dew, J. and Xiao, J. J. (2011). The financial management behavior scale, Development and validation. *Journal of Financial Counseling and Planning,* 22(1): 43–59. Available: https://doi.org/10.5829/idosi.mejsr.2012.12.10.79

Erdfelder, E., FAul, F., Buchner, A. and Lang, A. G. (2009). Statistical power analyses using g*power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*: Available: https://doi.org/10.3758/BRM.41.4.1149

Farooq, M. (2018). Impact of digitalization on holy quran readers, Experience and expectations. *IOSR Journal Of Humanities And Social Science IOSR-JHSS,* 23(7): 59–67. Available: https://doi.org/10.9790/08372307035967

Farooq, M. and Jabbar, Z. (2014). Role of word of mouth in building cbbe. *Elixir Marketing MGMT,* 73: 26443–47.

Financial well-being The goal of financial education (2015).

Gathergood, J. (2012). Self-control, financial literacy and consumer over-indebtedness. *Journal of Economic Psychology,* 33(3): 590–602. Available: https://doi.org/10.1016/j.joep.2011.11.006

Gold, A. H., Malhotra, A. and Segars, A. H. (2001). Knowledge management, An organizational capabilities perspective. *Journal of Management Information Systems,* 18(1): 185–214. Available: https://doi.org/10.1080/07421222.2001.11045669

Henseler, J., Ringle, C. M. and Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. 115–35. Available: https://doi.org/10.1007/s11747-014-0403-8

Hulland, J. (1999). Use of partial least squares, Pls in strategic management research. *A Review Of Four Recent Studies,* 206(November): 195–204.

IBM (2012). Ibm spss advanced statistics 23. Ibm, 184. Available: https://doi.org/10.1080/02331889108802322

Javed, T., Younas, W. and Imran, M. (2014). Impact of capital structure on firm performance, Evidence from pakistani firms. *International Journal of Academic Research in Economics and Management Sciences*: Available: https://doi.org/10.6007/IJAREMS/v3-i5/1141

Joseph, F., Hair, J., Marko, S. C. M. and Ringle, S. P. G. (n.d-a). *Advanced issues in partial least squares structural equation modeling - joseph f. Hair, jr., marko sarstedt, christian m. Ringle, siegfried p.* Gudergan - Google Books. https://books.google.com.my/books

Joseph, F., Hair, J., Tomas, G., Hult, M. and Christian, R. M. S. (n.d-b). *A primer on partial least squares structural equation modeling (PLS-SEM) - Joseph F. Hair, JR., G. Tomas M. Hult, christian ringle.* Marko Sarstedt-Google Books. https://books.google.com.my/books

Kahneman, D. and Krueger, A. B. (2010). *Of subjective well-being,* 20(1): 3-24.

Kahnemann, D. (2011). *Thinking, fast and slow.* Farrar, Straus and Giroux. 1.

Khalil-ur-rehman, F. and Farooq, M. (2018). Deployment of mobile learning in advanced education foundations. 18(6).

Kiyosaki, R. T. (2012). Rich Dad Poor Dad. Available: http://www.csce001.com/edit_zoop/uploadfile/system/20150408/20150408135309188.pdf

Kline, R. B. (2011). *Principles and practice of structural equationmodeling.* Guilford Press: New York.

Krejcie, R. V. and Morgan, D. (1970). Determining sample size for research activities. *Education and Psychological measurement*: 607–10.

Kumar, V. (2018). Transformative marketing, The next 20 years. *Journal of Marketing,* 82(4): 1–12. Available: https://doi.org/10.1509/jm.82.41

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology,* 22: 5-55.

Lusardi, A. (2008). Household saving behavior, The role financial literacy, information and financial education programs. Nber working paper series. 13824. Available: https://doi.org/10.3386/w13824

Mandell, L. and Klein, L. S. (2009). The impact of financial literacy education on subsequent financial behavior. *Journal of Financial Counseling and Planning,* 20(206): 15–24. Available: https://doi.org/10.1.1.334.3320

McNeish, D. (2017). Thanks coefficient alpha, we'll take it from here. *Psychological Methods*: Available: https://doi.org/10.1037/met0000144

Meyer, R. (2018). Re fl ections on, Transformative marketing, The next 20 years. 82(July): 13–14. Available: https://doi.org/10.1509/jm.82.42

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H. and Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. 108(7): 2693–98. Available: https://doi.org/10.1073/pnas.1010076108

Oechssler, J., Roider, A. and Schmitz, P. W. (2009). Cognitive abilities and behavioral biases. *Journal of Economic Behavior and Organization,* 72(1): 147–52. Available: https://doi.org/10.1016/j.jebo.2009.04.018

Puri, M., Robinson, D. T., Brav, A., Gervais, S., Hackbarth, D., Jenter, D. and Tetlock, P. (2007). Optimism and economic choice $ the authors are grateful for the comments and suggestions of arnoud boot. *Journal of Financial Economics,* 86: 71–99. Available: https://doi.org/10.1016/j.jfineco.2006.09.003

Qadir, A. and Farooq, M. (2018). Impact of evaluation apprehension on knowledge sharing intention through attitude and perceived behavioural control. *International Journal of Academic Research in Business and Social Sciences,* 8(6): 795–811. Available: https://doi.org/10.6007/IJARBSS/v8-i6/4274

Sarstedt, M., Ringle, C. M. and Hair, J. F. (2017). Partial least squares structural equation modeling. Handbook of market research. Available: https://doi.org/10.1007/978-3-319-05542-8_15-1

Sekaran, U. and Bougie, R. (n.d.). Research methods for business, A skill-building approach. Available: https://books.google.com.my/books?hl=en&lr=&id=Ko6bCgAAQBAJ&oi=fnd&pg=PA19&dq=uma+sekaran+book&ots=2B0UW7KYiP&sig=p28OxJm8h_PeCv52cwgLSJ2eRAI&redir_esc=y#v=onepage&q=umasekaranbook&f=false

Ser-, U. S. P. H., Muller, S., Scheublein, J., Stemple, L., Yuki-, J. A. and Uni-, S. (1973). Effects of attention to symbolically presented rewards on self-control 1. 28(2): 172–79.

Shefrin, H. M. and Thaler, R. H. (1988). The behavioral life-cycle hypothesis. 26(October): 609–43.

Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D. and Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance,* 14: 30–38. Available: https://doi.org/10.1016/j.jbef.2017.04.002

Tangney, J. P., Baumeister, R. F. and Boone, A. L. (2004). High self-control predicts good adjustment, Less pathology, Better grades, And interpersonal success june. *Journal of Personality*.

Thaler, R. H. (1985). Mental accounting and consumer choice. *Marketing Science,* 4(3): 199–214. Available: https://doi.org/10.1287/mksc.4.3.199

Thaler, R. H. and Shefrin, H. M. (1981). An economic theory of self-control`. *Journal of Political Economy,* 89(2): 392–406. Available: https://doi.org/10.1086/260971

Tversky, A. and Kahneman, D. (1992). Advances in prospect theory, Cumulative representation of uncertainty. *Journal of Risk and Uncertainty,* 5(4): 297–323. Available: https://doi.org/10.1007/BF00122574

Varadarajan, R. (2018). A commentary on "transformative marketing,The next 20 years. 2429: 15–19. Available: https://doi.org/10.1509/jm.82.43

Werts, C. E., Linn, R. L. and Jöreskog, K. G. (1974). Intraclass reliability estimates,Testing structural assumptions. *Educational and Psychological Measurement,* 34(1): 25–33. Available: https://doi.org/10.1177/001316447403400104

Yasmin, N. and Buzdar, F. (2018). Role of social media in success of fashion products, A malaysian consumers role of social media in success of fashion products. *A Malaysian Consumers Perspective*.

Younas, W., Farooq, M. and Khalil-ur-rehman, F. (2018). Role of celebrities in creation of brand image. 20(7): 67–70. Available: https://doi.org/10.9790/487X-2007026770