



**UNIVERSITI PUTRA MALAYSIA**

***EFFECTS OF MASTERY AND MATERIAL VALUE ON LIFE  
SATISFACTION AMONG ADULTS IN THE KLANG VALLEY, MALAYSIA***

**ANISHA JOANNE CHANDRASEGARAN**

**FEM 2018 16**



**EFFECTS OF MASTERY AND MATERIAL VALUE ON LIFE  
SATISFACTION AMONG ADULTS IN THE KLANG VALLEY, MALAYSIA**

By

**ANISHA JOANNE CHANDRASEGARAN**

**Thesis Submitted to the School of Graduate Studies, University  
Putra Malaysia, in Fulfillment of the Requirements for the Degree of  
Master of Science**

**August 2018**

All material contained within the thesis, including without limitation text, logos, icons, photographs and all other artwork, is copyright material of Universiti Putra Malaysia unless otherwise stated. Use may be made of any material contained within the thesis for non-commercial purposes from the copyright holder. Commercial use of material may only be made with the express, prior, written permission of Universiti Putra Malaysia.

Copyright © Universiti Putra Malaysia



Abstract of thesis presented to the Senate of University Putra Malaysia in fulfillment of the requirements of the degree of Master of Science

**EFFECTS OF MASTERY AND MATERIAL VALUE ON LIFE  
SATISFACTION AMONG ADULTS IN THE KLANG VALLEY, MALAYSIA**

By

**ANISHA JOANNE CHANDRASEGARAN**

**August 2018**

**Chair : Rahimah Ibrahim, PhD**  
**Faculty : Human Ecology**

To have a more profound comprehension of the relationship between materialism and life satisfaction, some consumer researchers have suggested the need to inspect probable effects of mediating, moderating, and third variables.

The first objective of the current study is to determine the relationship between age, material value and life satisfaction among the young adults, midlife adults and older adults using a sample in the Klang Valley, Malaysia. Also another aim of the study was to examine the mediating impact of mastery between age and material value. The last objective of the study was to examine the moderating impact of mastery between material value and life satisfaction. This study is a cross-sectional correlational study in which data was collected during a brief period of time. A total of 593 adults (267 males, 326 females) in the Klang Valley, Malaysia were drawn to participate in this study using convenience sampling. The quantitative data were gathered using self-report questionnaires including Satisfaction with Life Scale (SWLS), Material Value Scale (MVS), Pearlin & Schooler Mastery Scale and a demographic information form. To be able to determine the mediating and moderating impact of mastery, Structural Equation Modelling (AMOS) was employed. The results showed that there was a relationship between these three variables, aligned with the first objective. It also revealed that material value negatively affected life satisfaction. 11% of the variance of life satisfaction was explained by materialistic values, which also attained statistical significance. Also, the results revealed that age is a contributing factor to an individual's materialistic values although it only explained 12% of the variance, it was significant. This comes to show that materialistic values are harmful to life satisfaction.

Besides, the results suggest that the relationship between age and materialism is partially mediated by mastery. Before the inclusion of mastery, age and materialism yielded, ( $\beta = -.35$ ). Upon the inclusion of the mediator which was mastery the standardized regression coefficient reduced to ( $\beta = -.21$ ). The result of bootstrapping is consistent with the mediation tests results gathered. In addition, the findings indicated that mastery moderated the relationship between material value and life satisfaction indicating that those possessing higher mastery have a reduced negative relationship between material value and life satisfaction. The standardized coefficient of the moderation effect was ( $\beta = .22$ ) highlighting a moderate support for the relationship. Mastery is a crucial resource that protects one against the deleterious effects psychological stressors. Therefore, prevention and intervention programs should focus on people at risk of low or decreasing levels mastery, prioritizing the younger adults as the results of this study shows that this group possesses the lowest levels of mastery. Also, the findings of this study contributes to the scholarly world as prior studies have not studied the mediating and the moderating impact of mastery between the relationship of age, material value and life satisfaction respectively.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia Sebagai memenuhi keperluan untuk Ijazah Sarjana Sains

**KESAN KAWALAN DAN NILAI KEBENDAAN TERHADAP KEPUASAAN  
HIDUP DALAM KALANGAN ORANG DEWASA DI LEMBAH KLANG,  
MALAYSIA**

Oleh

**Anisha Joanne Chandrasegaran**

**Ogos 2018**

**Pengerusi : Rahimah Ibrahim, PhD**  
**Fakulti : Ekologi Manusia**

Untuk mempunyai pemahaman yang lebih mendalam mengenai hubungan antara nilai kebendaan dan kepuasan hidup, sesetengah penyelidik telah mencadangkan keperluan untuk memeriksa kesan kemungkinan pembolehubah pengantara, penyederhanaan, dan pembolehubah ketiga.

Objektif pertama kajian semasa adalah untuk menentukan hubungan antara umur, nilai kebendaan dan kepuasan hidup dalam golongan dewasa muda, dewasa tengah dan golongan tua menggunakan sampel di Lembah Klang, Malaysia. Objektif kedua kajian ini adalah untuk mengkaji kesan pembolehubah pengantara kawalan antara umur dan nilai kebendaan. Objektif terakhir kajian ini adalah untuk mengkaji kesan pembolehubah penyederhanaan antara nilai kebendaan dan kepuasan hidup. Kajian ini merupakan kajian korelasi rentas di mana data dikumpulkan dalam tempoh masa yang singkat. Sejumlah 593 orang dewasa (267 lelaki, 326 perempuan) di Lembah Klang, Malaysia telah dikumpulkan untuk mengambil bahagian dalam kajian ini menggunakan sampel secara kebetulan. Data kuantitatif diperoleh menggunakan soal selidik menggunakan tiga skala iaitu; Kepuasan dengan Skala Kehidupan (SWLS), Skala Nilai Kebendaan (MVS), Skala Kawalan Pearlin & Schooler dan maklumat demografi. Untuk menentukan kesan pembolehubah pengantaraan dan penyederhanaan kawalan, perisian Model Persamaan Struktur (AMOS) telah digunakan. Keputusan menunjukkan bahawa terdapat hubungan antara tiga pembolehubah ini, selaras dengan objektif pertama. Ia juga menunjukkan bahawa nilai kebendaan memberi kesan negatif kepada kepuasan hidup. 11% varian daripada kepuasan hidup dijelaskan oleh nilai kebendaan, yang juga mencapai pengaruh yang signifikan. Selain itu, analisis data

menunjukkan bahawa usia adalah faktor penyumbang kepada nilai kebendaan individu walaupun hanya menjelaskan 12% varian, ia adalah signifikan. Ini menunjukkan bahawa nilai kebendaan adalah berbahaya kepada kepuasan hidup. Selain itu, keputusan juga menunjukkan bahawa hubungan antara umur dan nilai kebendaan dikuasai sebahagian oleh pembolehubah pengantara kawalan. Sebelum kemasukan pembolehubah pengantara kawalan, umur dan nilai kebendaan mencapai, ( $\beta = -.35$ ). Apabila pembolehubah pengantara kawalan dimasukkan yang menguasai pekali regresi piawaian dikurangkan kepada ( $\beta = -.21$ ). Hasil daripada bootstrapping adalah konsisten dengan keputusan pembolehubah pengantaraan yang diuji. Di samping itu, penemuan membuktikan kawalan menyederhanakan pengaruh nilai kebendaan terhadap kepuasan hidup; di mana mereka yang mempunyai kawalan yang lebih tinggi mempunyai hubungan negatif yang lebih rendah antara nilai kebendaan dan kepuasan hidup. Pekali regresi piawaian adalah ( $\beta = .22$ ) yang memberi sokongan sederhana untuk hubungan itu. Kawalan adalah sumber penting yang melindungi seseorang daripada kesan negatif psikologi. Oleh itu, program pencegahan dan intervensi harus menumpukan perhatian kepada orang yang berisiko rendah atau kepada individu yang mempunyai kawalan yang rendah. Keutamaan harus diberikan kepada golongan yang lebih muda kerana hasil kajian ini menunjukkan bahawa kumpulan ini mempunyai tahap kawalan yang paling rendah. Selain itu, penemuan kajian ini menyumbang kepada dunia ilmiah kerana kajian terdahulu tidak mengkaji pembolehubah pengantaraan kawalan dan pembolehubah penyederhanaan kawalan antara hubungan umur, nilai kebendaan dan kepuasan hidup.

## ACKNOWLEDGEMENTS

I would first like to thank my thesis Supervisor, Prof. Madya Dr. Rahimah Ibrahim for her invaluable time, guidance and support during this entire educational journey. I would also like to thank Dr. Zarinah who was the Co-Supervisor of this thesis

Besides, I would like to thank Prof. Ong Fon Sim for allowing me to be part of a project during her data collection as well as for allowing me to incorporate the data collected for my study. Also, I would like to thank Ministry of Science, Technology and Innovation for funding the project I participated in as a Research Assistant.

Besides, I would like to thank all the members of School of Graduate Studies of Universiti Putra Malaysia, who provided support and guidance throughout my graduate study.

Moreover, I would like to express my appreciation to the authors of the Mastery Scale (Leonard I. Pearlin & Carmi Schooler), Satisfaction with Life Scale (Ed Diener) and The Material Value Scale (Marsh L. Richins and Scott Dawson).

Finally, I would like to express my gratitude to the members of my family who supported and believed in me



This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the Degree of Master of Science. The members of the Supervisory Committee were as follows:

**Rahimah Ibrahim, PhD**  
Associate Professor  
Faculty of Human Ecology  
Universiti Putra Malaysia  
(Chairman)

**Zarinah Arshat, PhD**  
Senior Lecturer  
Faculty of Human Ecology  
Universiti Putra Malaysia  
(Member)

---

**ROBIAH BINTI YUNUS, PhD**  
Professor and Dean  
School of Graduate Studies  
University Putra Malaysia

Date:

### **Declaration by graduate student**

I hereby confirm that:

- this thesis is my original work;
- quotations, illustrations and citations have been duly referenced;
- this thesis has not been submitted previously or concurrently for any other degree at any other institutions;
- intellectual property from the thesis and copyright of thesis are fully-owned by Universiti Putra Malaysia, as according to the Universiti Putra Malaysia (Research) Rules 2012;
- written permission must be obtained from supervisor and the office of Deputy Vice-Chancellor (Research and Innovation) before thesis is published (in the form of written, printed or in electronic form) including books, journals, modules, proceedings, popular writings, seminar papers, manuscripts, posters, reports, lecture notes, learning modules or any other materials as stated in the Universiti Putra Malaysia (Research) Rules 2012;
- there is no plagiarism or data falsification/fabrication in the thesis, and scholarly integrity is upheld as according to the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) and the Universiti Putra Malaysia (Research) Rules 2012. The thesis has undergone plagiarism detection software.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name and Matric No.: \_\_\_\_\_

### **Declaration by Members of Supervisory Committee**

This is to confirm that:

- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) are adhered to.

Signature: \_\_\_\_\_  
Name of Chairman of  
Supervisory  
Committee: \_\_\_\_\_

Signature: \_\_\_\_\_  
Name of Member of  
Supervisory  
Committee: \_\_\_\_\_

## TABLE OF CONTENTS

	Page
<b>ABSTRACT</b>	<b>i</b>
<b>ABSTRAK</b>	<b>iii</b>
<b>ACKNOWLEDGMENTS</b>	<b>v</b>
<b>APPROVAL</b>	<b>vi</b>
<b>DECLARATION</b>	<b>viii</b>
<b>LIST OF TABLES</b>	<b>xiii</b>
<b>LIST OF FIGURES</b>	<b>xvi</b>
<b>LIST OF ABBREVIATIONS</b>	<b>xvii</b>
<b>CHAPTER</b>	<b>1</b>
<b>1 INTRODUCTION</b>	<b>1</b>
1.1 Background of Study	1
1.2 Problem Statement	5
1.3 Research Objectives	6
1.4 Research Questions	7
1.5 Research Hypothesis	7
1.6 Operational Definitions	8
1.7 Conceptual Framework	10
1.8 Theoretical Framework	11
1.9 Significance of Study	14
1.10 Scope of Study	15
<b>2 LITERATURE REVIEW</b>	<b>16</b>
2.1 Approaches	16
2.1.1 Eudamonic Approach	16
2.1.2 Hedonic Approach	17
2.1.3 Definition of Life Satisfaction	17
2.2 Materialism	21

2.2.1	Definition of Materialism	22
2.2.2	Conceptualization of Materialism	23
2.2.3	Measures of Materialism	24
2.2.4	Types of Materialism	25
2.3	Materialism and Life Satisfaction	27
2.3.1	Moderators and Mediators Used	28
2.3.2	Theories used to explain this relationship	31
2.3.3	Age and Materialism	34
2.3.4	Cross-cultural Research	35
2.3.5	Malaysian Literature	37
2.4	Mastery	39
2.4.1	Different types of Psychological Resources	41
2.4.2	Age and Mastery	41
2.4.3	Mastery as a Moderator and Mediator	43
2.5	Developmental Approach	45
2.5.1	Theories of Adult Development	46
2.5.2	Developmental Influences	48
2.5.3	Studies based on the Developmental Approach	49
<b>3</b>	<b>METHODOLOGY</b>	<b>52</b>
3.1	Participants	52
3.2	Data Collection Instruments	53
3.2.1	Satisfaction with Life Scale	53
3.2.2	Material Value Scale	53
3.2.3	Mastery Scale	54
3.2.4	Demographic Variable	54
3.3	Sampling Method	54
3.4	Design of Study	55
3.5	Data Collection Procedure	55
3.6	Data Analysis	56
3.6.1	Reliability Analysis	57
3.6.2	Data Screening for Missing Values	57

3.6.3 Outliers Check	57
3.6.4 Normality test	60
3.6.5 Multi - Collinearity	61
3.6.6 Linearity and Homoscedasticity	62
3.7 Structural Equation Modeling - The Confirmatory	
Factor Analysis (CFA)	62
3.7.1 Measurement Model	62
3.7.2 The Assessment for Construct Validity	70
3.7.3 The Assessment for Convergent Validity and Composite	
Reliability	71
3.7.4 Discriminant Validity	72
<b>4 RESULTS AND DISCUSSION</b>	<b>74</b>
4.1 Introduction	74
4.2 Demographic Characteristics of the Respondents	74
4.3 Descriptive Results	76
4.3.1 Satisfaction with Life Scale	76
4.3.2 Material Value Scale	77
4.3.3 Mastery Scale	77
4.4 Inferential Analysis	79
4.4.1 Linear Regression Estimation of Age and Material Value	79
4.4.2 Linear Regression Estimation of Age and Life Satisfaction	80
4.4.3 Linear Regression Estimation of Age and Mastery	80
4.5 Structural Equation Modeling – Structural Model	82
4.5.1 Path Analysis	82
4.5.2 Mediation Analysis of Mastery	84
4.5.3 Moderating Analysis of Mastery	87
4.5.4 Hypothesis Testing	90
4.6 Discussion	91
4.6.1 Discussion of Descriptive Analysis	93
4.6.2 Discussion of Inferential Analysis	95
4.6.3 Discussion of Research Objectives	98

<b>5</b>	<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS</b>	<b>106</b>
5.1	Summary and Conclusion	106
5.2	Theoretical and Practical Implications	107
5.2.1	Theoretical Implications	107
5.2.2	Practical Implications	108
5.3	Limitations and Recommendations for Future Research	109
	<b>REFERENCES</b>	<b>113</b>
	<b>APPENDICES</b>	<b>149</b>
	Appendix A	149
	Appendix B	151
	Appendix C	152
	Appendix D	154
	Appendix E	155
	Appendix F	156
	<b>BIODATA OF STUDENT</b>	<b>157</b>

## LIST OF TABLES

TABLES	PAGE
3.1 Cronbach's Alpha Test For Reliability	57
3.2 Multivariate Normality Test Based On Mahalanobis Distance	58
3.3 The Table Of Normality Test Among All The Variables	60
3.4 Multicollinearity Test Based On Correlation Coefficients	61
3.5 Item's Loading Factor In Final Fitted Measurement Model	70
3.6 The Fitness Indexes For New Measurement Model	70
3.7 The Ave And Cr For Each Construct	71
3.8 The Result Of Convergent Validity	72
3.9 Correlation Of Latent Variables And Discriminant Validity	72
4.1 Frequency Distribution Of Participants' Demographic Characteristics	75
4.2 Mean And Standard Deviation For Related Items To Satisfaction With Life (N= 591)	76
4.3 Mean And Standard Deviation For Related Items To Material Value Scale (N= 591)	77
4.4 Mean And Standard Deviation For Related Items To Mastery Scale (N= 591)	78
4.5 List Of Hypotheses And Relative Paths	82
4.6 Test Of The Total Effects Of Age On Material Value, Material Value And Satisfaction With Life (Without Moderators)	84
4.7 Test Of The Total Effects Of Age On Material Value (With Mediator)	86
4.8 Distinguishing Total, Direct And Indirect Effects Of Mode	87



4.9	Test Of Moderating Effect Of Mastery	88
4.10	Testing The Hypothesis	90



## LIST OF FIGURES

FIGURES	PAGE
1.1 Conceptual Framework	10
3.1 The Individual Model For Confirmatory Factor Analysis (Cfa) – Material Value	64
3.2 The Individual Model For Confirmatory Factor Analysis (Cfa) – Material Value	65
3.3 The Individual Model For Confirmatory Factor Analysis (Cfa) – Mastery	65
3.4 The Individual Model For Confirmatory Factor Analysis (Cfa) – Mastery	66
3.5 The Individual Model For Confirmatory Factor Analysis (Cfa) – Satisfaction	67
3.6 The Individual Model For Confirmatory Factor Analysis (Cfa) – Satisfaction	68
3.7 Final Over All Measurement Model Based On All Constructs	69
4.1 Linear Estimation Between Age And Material Value	79
4.2 Linear Estimation Between Age And Satisfaction With Life	80
4.3 Linear Estimation Between Age And Mastery	81
4.4 Direct Path Model Without Mediator (Standardized Path Coefficients)	83
4.5 Overall Path Model With Mediation (Standardized Path Coefficients)	85
4.6 Moderating Effect Of Mastery In The Relationship Between Material Value And Life Satisfaction With Standardized Path Coefficients	88
4.7 The Graph For The Interaction Effects For Unstandardized Coefficients	89

## LIST OF ABBREVIATIONS

AGFI	Adjusted Goodness Fit Index
AMOS	Analysis of a Moment Structure
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CR	Composite Reliability
GFI	Goodness Fit Index
IFI	Incremental Fit Index
LS	Life Satisfaction
MSV	Maximum Shared Variance
MV	Material Value
NA	Negative Affect
NFI	Normed Fit Index
NFI	Normed Fit Index (NFI)

PA	Positive Affect
RMSEA	Root Mean Square Error of Approximation
SEM	Structural Equation Modeling
SPSS	Statistical Package for Social Sciences
SWB	Subjective Well-Being
SWLS	Satisfaction with Life Scale
TLI	Tucker Lewis Index
VIF	Variance Inflation Factor

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of Study

According to Erikson (1963), each of the three periods of life in adulthood is characterized by a different defining issue, theme, or crisis. As each stage of life carries a developmental task with it, thus the life satisfaction of one would be affected by the developmental task one encounters directly or indirectly. Intimacy, the issue for young adulthood, is typically viewed for a search of a life partner or mate (Whitbourne & Tesch, 1985) or for developing meaningful relations with others. Generativity, the issue that is central for the middle-aged, is often manifested in helping one's own children or the young in general, seeking to create self-defining works, or leaving public legacies (McAdams & St. Aubin, 1992). Finally, ego integrity, the issue for the last phase of life, frequently entails the search for ego transcendence or for an understanding of one's place in the ultimate scheme of things (Peck, 1968). Based on the Eriksonian model and its epigenetic developmental assumptions, each of these successive crisis foci (identity, intimacy, generativity, and ego integrity) represents an increased level of maturity and subjective well-being, because each is based on successful completion of the previous crisis (Sheldon & Kasser, 2001).

Erikson's theory of psychosocial development states that age-graded changes in social roles causes people to participate in different tasks at different periods of their lives (Jaspers & Pieters, 2016; Sheldon & Kasser, 2001). The change from young adulthood to middle adulthood then requires an increasing focus on the welfare of their family, displaying a decrease in self-centred values such as materialism (Kasser & Ryan, 1996). Once people have families of their own and secure stable positions in their occupational world, they become less preoccupied with their own concerns and display more concern to the welfare of others (Veroff, Reuman, & Feld, 1984). Conflicting evidence have been documented on old adulthood wherein some of it suggest a further decrease in materialism, other theories suggest that materialism actually increases in late adulthood. A number of studies posit that materialism might decrease further in late adulthood because this stage of life brings about a more spiritual worldview (Tornstam, 1997) and an increased focus on emotionally significant goals and activities (Carstensen, 1995). Some reasons given on why it may increase is due to unpleasant events for instance the death of spouse and friends, decline of physical health and physical functioning, loss of social status and prestige, and sometimes even financial instability (Staudinger, Marsiske, & Baltes, 1995). Ultimately, materialism is one way to deal with stress and low self-esteem (Chang & Arkin, 2002; Chaplin & John, 2010;

Rindfleisch, Burroughs, & Denton, 1997; Roberts, Manolis, & Tanner, 2003). Collecting possessions may in turn lessen people's sense of dependence on others and can be a way to boost up feelings of competence and success (Furby, 1978; Richins, 2011) and to regain control (Heckhausen, Dixon & Baltes, 1989). A study done by Jaspers and Pieters (2016), examined the association between age on material value, revealing that age is negatively associated with material value suggesting that as one ages their material value decreases.

For decades, psychologists have suggested that individuals preoccupied with materialism have a tendency to characterize their self-concept and success in life by the quantity and quality of their extrinsic possessions may be more inclined to experience a diminished well-being (Fromm, 1976; Deci & Ryan, 2000; Kasser & Ahuvia, 2002). It is now well established that an over-reliance on materialistic gains together with social approval as the base for self-worth subjects individuals to be inherently vulnerable to uncontrollable factors, self-esteem and affective instability (Crocker & Wolfe, 2001). Cross-cultural research has shown that people from various nations seem to agree on one point that is; materialism is a weakness displayed by insecure people who are doubtful about their self-worth (Ger & Belk, 1996). However, this association between self-doubt and materialism is not expected to be universal for all cultures (Chang & Arkin, 2002). Instead, it seems likely to be constrained to cultures that place greater attention on material possessions. In a parallel vein, financial aspirations tend to increase when wealth and status appear accessible for everyone in a society (Merton, 1968). Undoubtedly, materialism has witness a dramatic increase in countries with sudden urbanization or commercialization, where drastic social changes have increased social mobility and brought about confusion in social norms (Ger & Belk, 1996). Dolliver (2007) concluded in his study done a decade ago that there is growing evidence that akin to Western societies, there is a growing obsession with possessions among the youths in Malaysia. Besides, according to Kasser and Ahuvia (2002), the degree to which an individual possess a materialism value depends largely on a materialism-oriented environment.

Under regular conditions, people who had been upset by adverse life events were more inclined to endorse materialistic values and more inclined to react with a range of maladaptive consumer behaviours (Somer & Ruvio, 2014). Therefore, materialism has been found to be a form of a maladaptive coping behaviour. In a study done by Somer and Ruvio (2014), found that to cope with their distress, civilians living under continuous shelling indulged in shopping to escape from the hardships of their threatening milieu. Escapist shopping could solely be motivated by the need to capture attention resources and offer a distraction from the bleak environment, rather than to satisfy materialistic values and the need to own objects. Furthermore, studies that focused on the origins of materialism revealed that materialism has a close association with an underlying feeling of psychological insecurity, anxiety, shyness and a lack of confidence (Kasser & Ahuvia, 2002; Richins, 2017). Materialism may be one of the maladaptive coping strategy (Górník-Durose & Boroń, 2018) taken by those under a time of crisis or going through psychological insecurity.

Substantial research findings across different fields have demonstrated that materialism was associated negatively with factors such as happiness and life satisfaction. Additionally, empirical evidence accumulated has demonstrated that dissatisfaction with life was identified with a materialistic lifestyle (Belk, 1985). A sizeable number of studies yielded that there is a negative relationship between materialism and life satisfaction (Baker, Moschis, Ong & Patannapanyasat, 2013; Belk, 1985; Burroughs & Rindfleisch, 2002; Richins & Dawson, 1992; Sirgy, 1998; Wright & Larsen, 1993). However, other researchers have documented that materialism is positively correlated with life satisfaction (Dawson & Bamossy, 1991; Ger & Belk, 1996; Hudders & Pandelaere, 2012). The inconsistency among the findings between the relationship between materialism and life satisfaction across and within cultures led Burroughs and Rindfleisch (2002) to arrive at a conclusion, based on their analysis of the literature, that the relationship between materialism and well-being is complex and enigmatic. A study done by Baker et al. (2013), noted that the findings between material value and life satisfaction are inconsistent and in turn, suggested for the need to focus on moderating and mediating variables.

A study done by Moschis, Hosie and Vel (2009) investigated materialism in Malaysia using the life-course perspective from the consumer and behavioural perspective. Integration of the literature using the life course perspective was incorporated to facilitate Moschis et al. (2009) study on the nature of materialism and its effects on consumer behaviour. Aligned with previous research findings, television viewing and peer communication during adolescent years had a significant relationship with materialistic values held by young Malaysian adults. Moschis et al. (2009) utilises the viewpoints of different social and behavioural sciences (Abeles, Steel & Wise, 1980; Elder, 1995; Mayer & Tuma, 1990). These viewpoints propose that behaviour, reaction patterns and adaptation to life events in any stage of an individual's life is an outcome of earlier instances. Moschis et al. (2009) demonstrated that consumption behaviour is a product of development. Therefore, it should follow that values are a product of development which is consistent with the Theory of Psychosocial Development by Erikson (1959) which posits that at different stages of development different values are adapted Jaspers and Pieters (2016). As such, the developmental approach provides a relevant model to study human behaviour, in this case materialism. The developmental approach using Erik Erikson's theory was used as Jaspers and Pieters (2016) also highlighted that the authors were not aware of developmental studies on materialism.

Developmental theories speculate that materialism is high in young adulthood and decreases from young to middle adulthood. Although existing theories and empirical evidence provide mixed predictions, the prior analysis suggests a potential rise in materialism from middle to late adulthood (Jaspers & Pieters, 2016). Besides, it was found that people's beliefs about the relationship between age and materialism is high in young adulthood, when people are still in search for self-identity and are accumulating resources for later life stages. Older people are generally considered to give less importance to extrinsic values such as materialism (Sheldon & Kasser, 2001). A preliminary study was carried out by Jaspers and Pieters (2016) in which they



examined if people's lay beliefs are consistent with this view using a sample of United States residents. As predicted, people's lay beliefs were that materialism declines almost monotonically with age from young adulthood to late adulthood. A study was then carried out by Jaspers and Pieters (2016) to examine extant empirical evidence for people's lay beliefs. Results yielded a U-shaped trajectory of material value that goes against lay beliefs and some developmental theories that materialism monotonically decreases with age (Jaspers & Pieters, 2016). The authors recommended that it is important that future research tests whether the observed increase in materialism among older Dutch people also generalizes to non-Dutch populations. Although Erikson did not specifically postulate a theory pertaining materialism; his theory is appropriate in explaining materialism as demonstrated in Jaspers and Pieters (2016) which also conceptualizes materialism as a value which changes according to one's developmental age. This study adopts the monotonic view of materialism that among the Malaysian population, materialism is expected to decrease as one ages.

Mastery, which is conceptualized as a coping mechanism to reduce stress was coined by Pearlin and Schooler (1978). Personal resources, precisely mastery has been found to display a direct beneficial effect on mental health and also has been found to protect against the negative impact of stress on mental health in a study done by Bovier, Chamot and Perneger (2004). Adapting the same definition of a mediator by Mirowsky (2013), in this study mastery mediates the relationship between age and materialism in that an increase in age leads to an increase in mastery, and the increase in mastery, in turn, leads to a decrease in a maladaptive form of coping; materialism. In addition, the moderating effect of mastery is explained in a way that although materialism threatens one's life satisfaction, not all who indulge in it encounter a lower life satisfaction. It is hypothesized that the difference in vulnerability to the negative effects of materialism can be largely attributed to one's mastery levels. The moderating hypothesis hypothesizes individuals who possess a high level of mastery are less vulnerable to the negative effects materialism brings on their life satisfaction than their low-mastery counterparts, regardless of whatever age group they belong to (Caputo, 2003; Keith, 2004; Turner & Lloyd, 1999).

Mastery is but one construct among several that share some reference to personal control over life circumstances yet in certain respects it differs from other constructs that pertain to our sense of control (Pearlin, 2009). According to Pearlin (2009), mastery is a self-belief, of a conviction that people are able to control the important circumstances currently impinging on their life. For example, mastery specifically concerns control over those circumstances that importantly bear on the life of the individual, not the controllability of circumstances in general, as tends to be the case in the widely used locus of-control measure (Rotter, 1966). Therefore, mastery is more appropriate to be incorporated as a moderator between the relationship of materialism and life satisfaction. With reference to the definition given by Rotter (1966), the usage of mastery is relevant simply because individuals are more inclined to react when circumstances that are important to them are uncontrollable rather than general circumstances which may not be important to them.



Mental well-being is indirectly linked to the general health of a person. Extensive researches (Henderson & Knight, 2012; Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2011; Ryan & Deci, 2001) states that mental well-being comprises both hedonic and eudaimonic elements. Hedonic well-being is often gauged using factors namely; positive and negative emotions and life satisfaction (Ryan & Deci, 2001). On the other hand, Factors of eudaimonic well-being instead consist of self-actualization, vitality, self-acceptance, meaning in life and personal growth (Ryan & Deci, 2001). Materialism reduces both these elements of well-being; it projects its essence as a sociocultural occurrence that affects mental well-being. As materialism is characteristic of hedonia, selecting the right item to assess the relationship between materialism and well-being is crucial as there are possibilities of materialistic values yielding a different relationship with these two aspects of well-being. Therefore, it is essential to take life satisfaction into consideration to gauge the life-satisfaction of adults (Steptoe, Deaton & Stone, 2015).

## **1.2 Problem Statement**

To have a more profound comprehension of the relationship between material value and life satisfaction, some consumer researchers have suggested the need to inspect probable effects of mediating, moderating, and third variables (Belk 1985; Richins & Dawson 1992; Wong, Rindfleisch & Burroughs, 2003). Moreover, inconsistent findings gathered from previous research do not conclusively show differences yielded in the relationship between material value and life satisfaction to be credited to any particular type of culture, highlighting the need to study this relationship in different cultures. Hence, the incorporation of mastery as a moderator is imperative to address the intricate relationship between material value and life satisfaction. As to the researchers' knowledge, constructs relating to control such as locus of control (Christopher, Saliba & Deadmarsh, 2009) have been used to test between the relationship of material value and life satisfaction however locus of control brings about a different definition as compared to mastery. Undoubtedly, the researcher acknowledges the possibility that the relationship between material value and life satisfaction is complex, possibly reverse, reciprocal or even a manifestation of third variables. The study incorporates existing theoretical viewpoints and previous research discoveries that suggest possible effects of material value on life satisfaction.

Besides, another notable gap that has been underexplored is the negative association of age and material value. A search of the literature revealed few studies in which researchers prior to this have considered age only as a linear control variable, thus inhibiting the possibility of delving into the intricacies between age and material value relationship (Jaspers & Pieters, 2016). A study done by Jaspers and Pieters (2016), addressed the association of age with material value and demonstrated that age is negatively associated with material value, suggesting that as one ages their material value decreases. However, as to why this relationship exist, as to the researchers knowledge no study has addressed the underlying mechanism of this relationship; at

least from the developmental perspective as substantiated by Jaspers and Pieters (2016) noting that the effects of age on value orientations such as the construct of materialism have received far less attention. Therefore, the use of age as the only independent variable is reasonable as one of the main aims of the study was to study the effects of age on material value as it has been stated to be an understudied relationship. Also, from the Malaysian context, as to the researcher's knowledge, no study has sought to explain this relationship from the developmental perspective. The studies by far carried out in the context of age, material value and life satisfaction are as follows; Moschis et al. (2009) who studied the effects of watching television and peer communication during teenage years on the materialistic values possessed by young Malaysian adults; Baker et al. (2013) who explored the effect of materialism on individuals' life satisfaction using a large sample drawn from Malaysia; Mansor et al. (2014) who tested the effects of materialism as a mediator variable between loneliness and life satisfaction using a sample of 366 Malaysian undergraduate students and lastly Bindah and Othman (2012) who investigated for differences in age and gender on the development of materialistic values in Malaysia using a sample aged 19 - 29 years old. As evident from the studies aforementioned, no study has sought to explain the relationship of age and materialistic values using a wide age range of samples from young adults to older adults.

Importantly, mastery will be incorporated as both a mediator and moderator. Our study emphasizes on mastery because previous studies highlight mastery to be a prominent psychological resource with a stress-moderating ability that brings about positive mental health even of those people encountering challenging circumstances (Caputo, 2003; Keith, 2004; Kessler & Essex, 1982; Togari & Yonekura, 2015). Besides, as compared to Jaspers and Pieters (2016), this study is a cross-sectional study that compares young adulthood, middle adulthood and late adulthood. A quantitative, correlational study will be carried out to address the gaps aforementioned.

### **1.3 Research Objectives**

1. To determine the relationship between age, material value and life satisfaction among the young adults, midlife adults and older adults using a sample in the Klang Valley, Malaysia
2. To examine the mediating impact of mastery between age and material value
3. To examine the moderating impact of mastery between material value and life satisfaction

#### 1.4 Research Questions

The research questions of this study are:

1. Is there a relationship between age, material value and life satisfaction among the Klang Valley, Malaysia sample?
2. Is mastery a mediator between the relationship between age and material value?
3. Is mastery a moderator between the relationship of material value and life satisfaction?

#### 1.5 Research Hypothesis

Drawing on the literature and tenets of the developmental framework, a number of research hypotheses were developed.

H1 : It is hypothesized that age is associated with material value which in turn has an effect on life satisfaction.

H1a: It is hypothesized that age has a negative effect on material value. Previous studies show that material value decreases with age (Jasper & Pieters, 2016; Sheldon & Kasser, 2001).

H1b: It is hypothesized that material value has a negative effect on life satisfaction.

A number of studies show that as one's level of material value increase, their life satisfaction plunges (Baker et al., 2013; Belk, 1985; Burroughs & Rindfleisch, 2002; Richins & Dawson, 1992; Sirgy, 1998; Wright & Larsen, 1993)

H2 : It is hypothesized that mastery will mediate the relationship between age and material value.

H2a: It is hypothesized that age has a negative effect on material value. As aforementioned in the rationale outlined under H1a.

H2b: It is hypothesized that age has a positive effect on mastery. Previous studies show that mastery increases with age (Pearlin & Schooler, 1978; Schieman & Turner, 1998).

H2c: It is hypothesized that mastery has a negative effect on material value. Theoretically, as one's mastery increases, less likely will they indulge in the maladaptive coping of material values.

H3: It is hypothesized that mastery dampens the negative relationship between material value and life satisfaction.

Studies have reported mastery as a powerful psychological resource that bolsters against negative stressors (Caputo, 2003; Keith, 2004; Turner & Lloyd, 1999).

## **1.6 Operational Definitions**

### **Life Satisfaction**

Life satisfaction in this study is defined as an individual's global judgment of her or his life satisfaction (Diener, Emmons, Larsen, & Griffin, 1985). In this study, life satisfaction will be operationalized using the Satisfaction with Life Scale developed by Diener et al. (1985). This scale comprises of five-items to measure the Satisfaction with Life. Participants rated these statements in a 7-point Likert-type scale ranging from strongly disagree (1) to strongly agree (7). Higher scores indicate higher satisfaction with life.

### **Material Value**

Material value in this study adopts Richins and Dawson (1992) definition of materialism; which is as a value that influences the way that people interpret their environment and structure their lives. Richins and Dawson (1992) define materialism as the importance ascribed to the ownership and acquisition of material goods in achieving major life goals or desired states, and they conceptualize material values as encompassing three domains: firstly, the use of possessions to judge the success of others and oneself, secondly the centrality of possessions in a person's life, and lastly the belief that possessions and their acquisition lead to happiness and life satisfaction. However, in this study Material Value will be looked at a general level rather than specific domains. Material value will be operationalized using the 6-item Richins

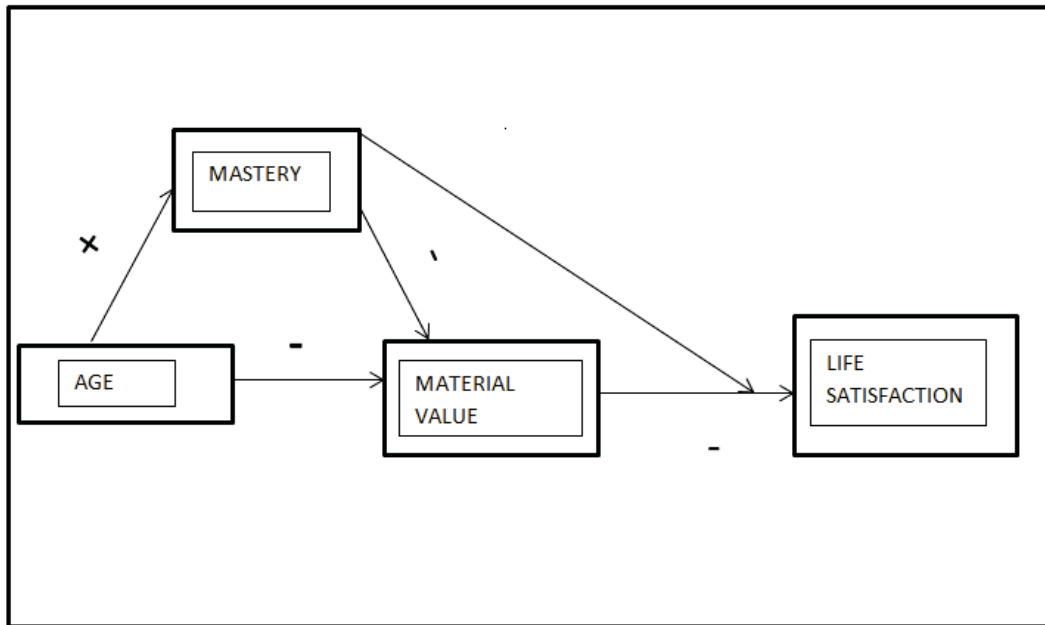
(2004) scale. Participants rated these statements in a 5-point Likert-type scale from 1="strongly disagree" to 5="strongly agree". The scores were then summed up to calculate the overall materialism score. Higher scores indicate higher material value.

### **Mastery**

Pearlin Mastery Scale was developed to quantify a person's mastery level, a known psychological resource that is define as "the extent to which one regards one's life-chances as being under one's own control in contrast to being fatalistically ruled" (Pearlin & Schooler, 1978, p.5). It consists of seven items; with item being attached with a 4-point Likert-type scale. This 7 items scale consists of five negatively-worded items and two positively-worded items. The answering options are: (1) Strongly Disagree (2) Disagree (3) Agree (4) Strongly Agree. The score ranges from 7 to 28; the higher the score, the higher the mastery levels (Pearlin & Schooler, 1978).

### **Demographic Variable**

Demographic variables are characteristics or attributes of subjects that are collected to describe the sample. The chronological age of the participants will be used in this study as a proxy to their respective developmental phase. Admittedly, chronological age is an imperfect indicator of a person's position within his or her unique life course (Neugarten, 1973). Nevertheless, chronological age has cultural implications attached to it and it also provides an unambiguous temporal metric upon which to compare different individuals (Sheldon & Kasser, 2001). The age of respondents will be looked at from the developmental standpoint in accordance with Erik Erikson's psychosocial stages, adopting the age range from a recent study done by Sheldon & Kasser (2001). The assumption presumed in this study is that each individual are at their respective developmental phase as outline by Erik Erikson.



**Figure 1.1. Conceptual Framework**

## 1.7 Conceptual Framework

The conceptual framework explains how life satisfaction is affected by a relationship between age and material value. Age and material value are hypothesized to yield a negative relationship, wherein an increase in age will lead to a decrease in material value. Material value and life satisfaction are hypothesized to result in a negative relationship, in which a decrease in material value would lead to higher life satisfaction as illustrated in Figure 1.1. Put together, the older one gets, the lesser materialistic they are in which subsequently leads to higher life satisfaction.

Mastery is incorporated to address the mediating and moderating impact it has on two separate relationships. Mastery as a mediator was incorporated to explain the relationship between age and material value. A negative relationship was hypothesized wherein material value is said to reduce with age. Mastery is hypothesized to increase with age which subsequently leads to a decrease in material value as illustrated in Figure 1.1. Material value is hypothesized to reduce with age because mastery is said to increase with age. The increase in mastery with age leads to a decrease in material value.



The moderating effect of mastery explains the relationship between material value and life satisfaction wherein, independent of age mastery reduces the negative effect material value brings on life satisfaction.

To conclude – as one ages, their level of material value reduces which is attributed to their increased level of mastery, and this process subsequently leads to a higher life satisfaction. Independent of age, to confirm mastery as a powerful psychological resource, highly materialistic adults equipped with higher levels of mastery will have higher life satisfaction compared to their counterparts with lower levels of mastery.

## **1.8 Theoretical Framework**

A specific theory about the development of age and materialism across the life span has not been coined yet, however existing general life span theories poses clues to it. These theories posit that value changes as a function of distinct developmental priorities that people at different ages have (Gouveia, Vione, Milfont & Fischer, 2015). Erikson (1959) as outlined in Sheldon and Kasser (2001) proposed an influential theory of eight psychosocial stages across the life span, and the relevant goals and values that people have in each life stage. Each developmental phase represents a major period of change and crisis that births an ego quality such as trust, initiative, or identity. Each stage emerges as the increasing maturity affords one with a new dimension of social interaction. The first four crises can be traced to infancy and childhood, which are trust against mistrust, autonomy against shame and doubt, initiative against guilt, and industry and its polarized outcome inferiority. Erikson divides adulthood into three stages, namely young adults, midlife adults and old age adults (Rosenthal, Gurney & Moore, 1981). Young adulthood typically characterizes self-oriented and resource related tasks such as studying, finding a job, and creating a relationship characterized by mutual devotion and love (Jaspers & Pieters, 2016; Sheldon & Kasser, 2001).

Intimacy and isolation (Erikson, 1963) represent the polar opposites of the psychosocial crisis that occurs during young adulthood. The key task of this phase is the development of intimate relationships with others such as close friends and a significant other. Successful resolution of this stage will lead to the basic virtue of love. Intimacy as defined by Erikson, “the ability to commit oneself to long-standing associations and partnerships and to hold onto the moral code to honour those given commitments despite the fact they may require noteworthy sacrifices and compromises” (Erikson, 1963, p. 263). Intimacy comprises transparency and sharing, a common trust. Erikson outlined the possible danger of this stage which is the polar outcome simply known as isolation (Orlofsky, 1976). The individual who is threatened by a fear of “ego loss” or “loss of identity” fails to tolerate experiences of self-sacrifice and interpersonal fusion which then results him/her resulting to withdraw from intimate contacts with others. The key to intimacy according to Erikson (1963) was self-sacrifice, receptiveness to new experiences of “fusion” devoid of fear of ego loss

.Constant withdrawal results in a deep sense of isolation and subsequently self-absorption.

The next stage, middle adulthood is when adults' concerns become increasingly other-oriented, as people tend to care for their children or indulge in other forms of altruistic concern wherein expressions of generativity may be in the forms of rearing of children, the production of ideas, or civic participation (generativity vs. stagnation). Generativity–stagnation, the seventh stage of psychosocial development marks the end of early adulthood which focused on intimacy–isolation. Driven by “a continuous extension of ego-interests and libidinal energy in that which is generated” (Erikson, 1963, p. 267), the key characteristic of generativity is create and guide the next generation through one's actions of care. Successful resolution of this stage results in the basic virtue of wisdom. Generativity can be achieved through one's involvement in a wide range of activities for instance by the basic nurturance of one's own offspring, addressing and contributing to the needs of the upcoming generation, combining work life with one's and last but not least a creative expression of “cultural practices amidst the booming world image” (Holsizer, Murphy, Noam, Taylor, Erikson, & Erikson, 1982, p. 269).

The last stage in Erikson's theory which is during late adulthood, people reflect on past achievements and regrets, and try to make peace with themselves and others (Jaspers & Pieters, 2016; McAdams, St. Aubin, & Logan, 1993; Nurmi, 1991). The last phase of development in Erik Erikson's psychosocial theory is between the polar outcomes of integrity versus despair (Erikson, 1963). Successful resolution of this stage births the basic virtue of wisdom. Erikson posited that the very thought of death in old age instills personal integrity in individuals. Intentionally or not, every individual in later years asks himself or herself: the meaning of their life and how do they feel about that, what do they have to grieve or rather to be proud of, to make up for, and what is left to be done about these things (Hearn et al., 2012). There can be two outcomes outlined by Erikson which are either reconciliation and acceptance or disappointment and despondence (Erikson, 1963; Erikson et al., 1986). In the flashback process of life outlined by Erikson, one seeks to balance life triumphs and trials and to come to a humane, philosophical cognizance of the entirety. As the individual reflects on his or her life, satisfaction is derived from the sense of knowing one's self and ways in the world which dependably and effectively mix with one's way of life. Therefore, the sense of integration can be considered to be both intra- and interpersonal.

In general, developmental priorities and specific values associated with these are embedded in people's broader value systems and changes in values are needless to state; interrelated. Ultimately, importance attributed to a certain value increases with age. Similar values also increase in importance, whereas opposing values decrease in importance (Schwartz, 1992). According to Erikson's model, age-graded changes in social roles cause people to engage in different tasks at different phases of their lives (Jaspers & Pieters, 2016; Sheldon & Kasser, 2001). In the present study, chronological



age is used as chronological age is a good proxy to developmental age simply because with chronological age there are cultural connotations tied to it. Based on the aforementioned reference of developmental age and their given crisis, a negative relationship have been yielded in previous studies suggesting that as one ages their materialism level decreases. The important question to be addressed here is what governs the underlying mechanism of this studied relationship.

According to Erikson, as individual progresses through the developmental trajectory the ego at each developmental stage is integrated (Sheldon & Kasser, 2001). Those at the eight stage of integrity versus despair, is said to have been integrated and failure to do so results in despair in which one would regret and yearn to have a chance to live their life once more (Sheldon & Kasser, 2001). It is therefore logical to assume that life satisfaction should be the highest for the older adults than the young adult and the midlife adults. Based on the Eriksonian model and its epigenetic developmental assumptions, each of these successive task foci (intimacy, generativity, and ego integrity) represents an increased level of maturity, because each is based on successful resolution of the prior crisis (Sheldon & Kasser, 2001). Logically, it can be assumed that based on increase maturity, one's mastery over the environment should increase too together with their coping values. Although faced with a developmental crisis, as one grows in age, their mastery gets better affording them with better coping methods than indulging in materialistic values. As the relationship of age and maturity (Sheldon & Kasser, 2001) , age and mastery too follows the same trajectory which is based on the fact that mastery increases with age, this is because older persons have on average been through more crises and traumas, experiences which often bring about changes in self-concept as well as new self-organization (Tedeschi & Calhoun, 1995). Another possibility is that aging provides people with a wealth of experience (Staudinger, Maciel, Smith, & Bakes, 1998), which teaches them that focusing on other people's opinions and approval is not satisfying in the long run; aging may also teach people to better regulate their moods and emotions (Carstensen, Isaacowitz & Charles, 1999). A final possibility is that the normative psychosocial tasks that older people face, such as generativity and ego integrity, are ones that result in greater integration by their very nature or content (Sheldon & Kasser, 2001). That is, these particular tasks may be the most satisfying of inherent psychological needs. Pearlin and Schooler (1978) did reveal that older adults had a higher mastery score. It is hypothesized in this study, that age and mastery would yield a positive relationship. As mastery increases, materialism a form of a maladaptive coping, is hypothesized to decrease because as one ages, they decrease indulging in maladaptive forms of coping; materialism. In other words, an increased level of mastery would translate to better coping in which Pearlin and Schooler (1978) defines as the things that people do to avoid being harmed by life constraints. The fundamental assumption of this concept is that people are constantly responding to forces that impinge upon them in concordance with Erik Erikson's psychosocial adaptation theory that posits that the epigenetic plan which arises from within the human organism is supported or interfered with by social demands (Erikson, 1959).

## 1.9 Significance of Study

The findings of this study will redound to the benefit of the scholarly world. The developmental approach used in this study will provide a different perspective in understanding age, material value and life satisfaction. Additionally, the usage of the developmental approach in this study will shed light on the developmental milestones central to the different groups of adults. This will point researchers and policy makers in designing an intervention tailoring to the differential needs of the different age groups based on their respective developmental milestones.

Besides, a greater significance of this research could be of use to the Mental Health Providers in Malaysia. As chronological age brings with it cultural connotations attached to it (Neugarten, 1973), the findings of this study can be used to explain the crisis faced by different age groups from the developmental standpoint and subsequently how they choose to deal with it. Thus, a comprehensive understanding of adults and all that it entails will be necessary as it can provide an idea on what to incorporate in a program that can help an adult maximize their life satisfaction.

Peoples self-report of their wellbeing are becoming a focus of intense debate in public policy and in economics, and enhancing the well-being of the population is emerging as a key societal aspiration (Steptoe et al., 2015). In the UK, the Office for National Statistics is driving a national debate over measuring wellbeing, whereas in the United States, 1000 adults are interviewed by the Gallup-Healthways adults every day about wellbeing, and similar initiatives are being done across countries. Indeed, more than 40 nations are now tracking their citizens' well-being, and few have also instituted policies that enhance their population's well-being (Myers & Diener, 2018). For the Malaysian journey instead, the 'Transformasi Nasional 2050' or TN50 is an initiative proposed by the government to plan for the future of Malaysia between the period of 2020 to 2050 (Mohamed, Silva, Samah, Shafril & Dahalan, 2018). One of the core factors recognized is the citizens' well-being as one of its core pillars, hence measuring the current life satisfaction of Malaysians would be pertinent as to provide precise input for the formulation of TN50 (Mohamed et al., 2018). Mastery is a crucial resource that protects one against the harmful effects of physical and psychological stressors regardless of any age groups. Thus, the study of mastery will allow for the birth of intervention programs that would target individuals with risk of low or decreased mastery.

Additionally, in terms of scholarly contribution, this study will address the mechanism behind the negative relationship between age and materialism by incorporating a mediator, thus shedding light into the question of why materialism decreases with age. Also, by incorporating mastery as a moderator, this study provides an insight into how mastery interacts with a potentially negative stressor and dampens this negative relationship.

#### **1.10 Scope of Study**

The present study was carried out to test out the to determine the relationship between age, material value and life satisfaction among the young adults, midlife adults and older adults using participants from Klang Valley, Malaysia as well as to examine the mediating and moderating impact of mastery. To achieve the stated objectives, convenience sampling was used. Participants recruited were those who were present during the timing the enumerators were around the respective organization.

The scope of this study is only limited to the selected variables of age, material value and life satisfaction. The age group chosen for this study is young, midlife and older adults. Therefore this study does not look into the materialistic values of children and adolescence. The usage of age, material value and life satisfaction together with the moderating and mediating impact of mastery are the only studied variables in this study. Additionally, the choice of location of the study is limited to the Klang Valley, Malaysia constituting participants from Kuala Lumpur and Selangor excluding other states in Malaysia.

The researcher acknowledges that other variables such as religiosity, communication styles and personality may also play a role in the studied relationship; however the main purpose of this study is firstly to examine the age, material value and life satisfaction relationship followed by the mediating and moderating impac

## REFERENCES

- Abeles, R. P., Steel, L., & Wise, L. L. (1980). Patterns and implications of life-course organization: Studies from Project TALENT. *Life-span Development and Behavior*, 3, 307-337.
- Ahuvia, A. C. (2005). Beyond the extended self: Loved objects and consumers' identity narratives. *Journal of Consumer Research*, 32(1), 171-184.
- Ahuvia, A. C., & Wong, N. (1995). Materialism: Origins and implications for personal well-being. *ACR European Advances*, 2, 172-178.
- Allport, G. W. (1961). Pattern and growth in personality. New York: Holt, Rinehart, & Winston.
- Aneshensel, C. S. (2015). Sociological inquiry into mental health: The legacy of Leonard I. Pearlin. *Journal of Health and Social Behavior*, 56(2), 166-178.
- Aneshensel, C. S., Pearlin, L. I., Mullan, J. T., Zarit, S. H., & Whitlatch, C. J. (1995). *Profiles in caregiving: The unexpected career*. Academic Press.
- Atran, S. (2007). Religion, suicide, terrorism, and the moral foundation of the world. *Stances on the neurobiology of social cognition*, 101-117.
- Awang, Z. (2015). *SEM made simple: A gentle approach to learning Structural Equation Modeling*. Selangor, Malaysia: MPWS Rich Publication.
- Aycock, K. J. (2011). Coping styles, social support, and depression in male and female college students. *Unpublished Ph. D Thesis, Georgia State University*.
- Bacon, L. D., & Bacon, L. D. (1997). *Using Amos for structural equation modelling in market research*. Chicago: Lynd Bacon & Associates Limited and SPSS Incorporated.

- Baird, B. M., Lucas, R. E., & Donnellan, M. B. (2010). Life satisfaction across the lifespan: Findings from two nationally representative panel studies. *Social Indicators Research*, 99(2), 183-203.
- Baker, A. M., Moschis, G. P., Ong, F. S., & Pattanapanyasat, R. P. (2013). Materialism and life satisfaction: The role of stress and religiosity. *Journal of Consumer Affairs*, 47(3), 548-563.
- Baker, L. M., Wilson, F. L., & Winebarger, A. L. (2004). An exploratory study of the health problems, stigmatization, life satisfaction, and literacy skills of urban, street-level sex workers. *Women & Health*, 39(2), 83-96.
- Baltes, M. M., Wahl, H. W., & Schmid-Furstoss, U. (1990). The daily life of elderly Germans: Activity patterns, personal control, and functional health. *Journal of Gerontology*, 45(4), 173-179.
- Baltes, P. B., Reese, H. W., & Lipsitt, L. P. (1980). Life-span developmental psychology. *Annual Review of Psychology*, 31(1), 65-110.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44(9), 1175-1184.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Belk, R. W. (1983). Worldly Possessions: Issues and Criticisms. In Richard P. Bagozzi and Alice M. Tybout, Ann Arbor (Eds.), *Advances in Consumer Research* (pp. 514-519). MI: Association for Consumer Research
- Belk, R. W. (1984). Three scales to measure constructs related to materialism: Reliability, validity, and relationships to measures of happiness. In: T. C. Kinnear (Ed.), *Advances in consumer research* (pp. Vol. 14, pp. 753–760). Provo: Association for Consumer Research.

- Belk, R. W. (1985). Materialism: Trait aspects of living in the material world. *Journal of Consumer Research*, 12(3), 265-280.
- Belk, R. W. (1988). Possessions and the extended self. *Journal of Consumer Research*, 15(2), 139-168.
- Belk, R. W. (2001). Materialism and you. *Journal of Research for Consumers*, 1(1), 291-297.
- Bindah, E. V., & Othman, M. N. (2012). The effect of peer communication influence on the development of materialistic values among young urban adult consumers. *International Business Research*, 5(3), 2-15.
- Bonett, D. G., & Wright, T. A. (2015). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning. *Journal of Organizational Behavior*, 36(1), 3-15.
- Bornstein, M. H., Jager, J., & Putnick, D. L. (2013). Sampling in developmental science: Situations, shortcomings, solutions, and standards. *Developmental Review*, 33(4), 357-370.
- Bovier, P. A., Chamot, E., & Perneger, T. V. (2004). Perceived stress, internal resources, and social support as determinants of mental health among young adults. *Quality of Life Research*, 13(1), 161-170.
- Brandtstädter, J., & Renner, G. (1990). Tenacious goal pursuit and flexible goal adjustment: Explication and age-related analysis of assimilative and accommodative strategies of coping. *Psychology and Aging*, 5(1), 58-67.
- Brandtstädter, J., Rothermund, K., & Schmitz, U. (1997). Coping resources in later life. *European Review of Applied Psychology*, 47, 107-114.
- Burroughs, J. E., & Rindfleisch, A. (2002). Materialism and well-being: A conflicting values perspective. *Journal of Consumer Research*, 29(3), 348-370.



- Busseri, M. A. (2018). Examining the structure of subjective well-being through meta-analysis of the associations among positive affect, negative affect, and life satisfaction. *Personality and Individual Differences*, 122, 68-71.
- Busseri, M. A., & Sadava, S. W. (2011). A review of the tripartite structure of subjective well-being: Implications for conceptualization, operationalization, analysis, and synthesis. *Personality and Social Psychology Review*, 15(3), 290-314.
- Byrne, B. M. (2001). Structural equation modeling: Perspectives on the present and the future. *International Journal of Testing*, 1(3-4), 327-334.
- Campbell, A. (1981). *The sense of well-being in America: Recent patterns and trends*. Michigan, US: McGraw-Hill.
- Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). *The quality of American life: Perceptions, evaluations, and satisfactions*. New York, NY: Russell Sage Foundation.
- Caprariello, P. A., & Reis, H. T. (2013). To do, to have, or to share? Valuing experiences over material possessions depends on the involvement of others. *Journal of Personality and Social Psychology*, 104(2), 199-215.
- Caputo, R. K. (2003). The effects of socioeconomic status, perceived discrimination and mastery on health status in a youth cohort. *Social Work in Health Care*, 37(2), 17-42.
- Carstensen, L. L. (1995). Evidence for a life-span theory of socioemotional selectivity. *Current Directions in Psychological Science*, 4(5), 151-156.
- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, 54(3), 165-181.
- Chang, L., & Arkin, R. M. (2002). Materialism as an attempt to cope with uncertainty. *Psychology & Marketing*, 19(5), 389-406.

- Chaplin, L. N., & John, D. R. (2010). Interpersonal influences on adolescent materialism: A new look at the role of parents and peers. *Journal of Consumer Psychology, 20*(2), 176-184.
- Chen, C. (2001). Aging and life satisfaction. *Social Indicators Research, 54*(1), 57-79.
- Chen, A., & Zhu, W. (2001). Revisiting the assumptions for inferential statistical analyses: A conceptual guide. *Quest, 53*(4), 418-439.
- Chen, B. B. (2017). Academic Procrastination and Bedtime among Chinese Undergraduates: The Indirect and Moderating Effects of Sensation Seeking and Goal Disengagement. *Current Psychology, 1-7*.
- Chih-Chien, W., Hsu, Y., & Fang, W. (2005). Acceptance of technology with network externalities: an empirical study of internet instant messaging services. *JITTA: Journal of Information Technology Theory and Application, 6*(4), 15-28.
- Christopher, A. N., Drummond, K., Jones, J. R., Marek, P., & Therriault, K. M. (2006). Beliefs about one's own death, personal insecurity, and materialism. *Personality and Individual Differences, 40*(3), 441-451.
- Christopher, A. N., Saliba, L., & Deadmarsh, E. J. (2009). Materialism and well-being: The mediating effect of locus of control. *Personality and Individual Differences, 46*(7), 682-686.
- Christopher, J. C. (1999). Situating psychological well-being: Exploring the cultural roots of its theory and research. *Journal of Counselling & Development, 77*(2), 141-152.
- Clench-Aas, J., Nes, R. B., & Aarø, L. E. (2017). The perceived constraints subscale of the Sense of Mastery Scale: dimensionality and measurement invariance. *Quality of Life Research, 26*(1), 127-138.
- Conger, K. J., Williams, S. T., Little, W. M., Masyn, K. E., & Shebloski, B. (2009). Development of Mastery during Adolescence: The Role of Family Problem-solving\*. *Journal of Health and Social Behavior, 50*(1), 99-114.



- Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. *Psychological Review*, 108(3), 593-623.
- Davidson, A., Habibi, M. R., & Laroche, M. (2018). Materialism and the sharing economy: A cross-cultural study of American and Indian consumers. *Journal of Business Research*, 82, 364-372.
- Dawson, S., & Bamossy, G. (1991). If "We Are What We Have," What Are We When We Don't Have?: An Exploratory Study of Materialism Among Expatriate Americans. *Journal of Social Behavior and Personality*, 6(6), 363-384.
- De Haes, J. C. J. M., Pennink, B. J. W., & Welvaart, K. (1987). The distinction between affect and cognition. *Social Indicators Research*, 19(3), 367-378.
- Deaton, A. (2008). Income, health, and well-being around the world: Evidence from the Gallup World Poll. *The Journal of Economic Perspectives*, 22(2), 53-72.
- Delle Fave, A., Brdar, I., Freire, T., Vella-Brodrick, D., & Wissing, M. P. (2011). The eudaimonic and hedonic components of happiness: Qualitative and quantitative findings. *Social Indicators Research*, 100(2), 185-207.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95, 542-575.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75.
- Diener, E., & Lucas, R. E. (2000a). Personality and Subjective Well-Being Across the Life Span. In *Temperament and Personality Development across the Life Span* (pp. 221-244). Psychology Press.
- Diener, E., & Lucas, R. E. (2000b). Explaining differences in societal levels of happiness: Relative standards, need fulfilment, culture, and evaluation theory. *Journal of Happiness Studies*, 1(1), 41-78.

- Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual Review of Psychology*, 54(1), 403-425.
- Diener, E., Oishi, S., & Lucas, R. E. (2015). National accounts of subjective well-being. *American Psychologist*, 70(3), 234-242.
- Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being?. *Social indicators research*, 57(2), 119-169.
- Dittmar, H. (2005). Compulsive buying—a growing concern? An examination of gender, age, and endorsement of materialistic values as predictors. *British Journal of Psychology*, 96(4), 467-491.
- Dittmar, H. (2011). Material and consumer identities. In *Handbook of identity theory and research* (pp. 745-769). New York, NY: Springer New York.
- Dittmar, H., & Kapur, P. (2011). Consumerism and well-being in India and the UK: Identity projection and emotion regulation as underlying psychological processes. *Psychological Studies*, 56(1), 71-85.
- Dittmar, H., Bond, R., Hurst, M., & Kasser, T. (2014). The relationship between materialism and personal well-being: A meta-analysis. *Journal of Personality and Social Psychology*, 107(5), 879–924.
- Dolliver, M. (2007). At least you can't accuse the kids of wallowing in bogus selflessness. *Adweek*, 48(4), 26.
- Donnelly, G., Iyer, R., & Howell, R. T. (2012). The Big Five personality traits, material values, and financial well-being of self-described money managers. *Journal of Economic Psychology*, 33(6), 1129-1142.
- Downey, R. G., & King, C. V. (1998). Missing data in Likert ratings: A comparison of replacement methods. *The Journal of General Psychology*, 125(2), 175-191.

- Dunn, E. W., Gilbert, D. T., & Wilson, T. D. (2011). If money doesn't make you happy, then you probably aren't spending it right. *Journal of Consumer Psychology*, 21(2), 115-125.
- Durlak, J. A. (2009). How to select, calculate, and interpret effect sizes. *Journal of Paediatric Psychology*, 34(9), 917-928.
- Easterlin, R. A. (2003). Explaining happiness. *Proceedings of the National Academy of Sciences*, 100(19), 11176-11183.
- Easterlin, R. A. (2006). Life cycle happiness and its sources: Intersections of psychology, economics, and demography. *Journal of Economic Psychology*, 27(4), 463-482.
- Easterlin, R. A., & Crimmins, E. M. (1991). Private materialism, personal self-fulfilment, family life, and public interest the nature, effects, and causes of recent changes in the values of American youth. *Public Opinion Quarterly*, 55(4), 499-533.
- Elder, G. H., Jr. (1995). The life course paradigm: Social change and individual development. In G. Elder, P. Moen, & K. Luscher (Eds.), *Examining lives in context* (pp.101–140). Washington, DC: American Psychological Association.
- Ellison, C. G. (1993). Religious involvement and self-perception among black Americans. *Social Forces*, 71(4), 1027-1055.
- Erikson, E. H. (1959). *Identity and the life cycle: Selected papers*.
- Erikson, E. H. (1963). *Childhood and society*, 2nd. New York: WW.
- Ersoy-Quadir, S. (2012). An analysis of some of the factors behind materialism among university students in Turkey. *Journal of Adult Development*, 19(2), 79-87.
- Evrard, Y., & Boff, L. H. (1998). Materialism and attitudes toward marketing. *ACR North American Advances*, 25, 196-202.

- Feifel, H., & Strack, S. (1989). Coping with conflict situations: Middle-aged and elderly men. *Psychology and Aging*, 4(1), 26-33.
- Flouri, E. (1999). An integrated model of consumer materialism: Can economic socialization and maternal values predict materialistic attitudes in adolescents?. *The Journal of Socio-Economics*, 28(6), 707-724.
- Flouri, E. (2007). The relationship between parenting and materialism in British mothers and fathers of secondary school age children. *The Journal of Socio-Economics*, 36(2), 167-176.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 382-388.
- Foxall, G. R., & Yani-de-Soriano, M. M. (2005). Situational influences on consumers' attitudes and behavior. *Journal of Business Research*, 58(4), 518-525.
- Freund, A. M., & Baltes, P. B. (1998). Selection, optimization, and compensation as strategies of life management: correlations with subjective indicators of successful aging. *Psychology and Aging*, 13(4), 531-543.
- Fromm, E., (1976). *To Have or To Be*. London: Abacus.
- Frunzaru, V., & Popa, E. M. (2015). Materialistic Values, Shopping, And Life Satisfaction In Romania. *Revista Romana de Sociologie*, 26(3/4), 299-313.
- Furby, L. (1978). Possession in humans: An exploratory study of its meaning and motivation. *Social Behaviour and Personality: An International Journal*, 6(1), 49-65.
- Gadalla, T. M. (2009). Sense of mastery, social support, and health in elderly Canadians. *Journal of Aging and Health*, 21(4), 581-595.

- Garson, G. D. (2008). Statnotes: Topics in Multivariate Analysis, Canonical Correlation. *North Carolina State University*. Available in: <http://www2.chass.ncsu.edu/garson/pa765/canonic.htm>.
- Gasiorowska, A., Zaleskiewicz, T., & Wygrab, S. (2012). Would you do something for me? The effects of money activation on social preferences and social behavior in young children. *Journal of Economic Psychology*, 33, 603–608.
- Ge, X., Lorenz, F. O., Conger, R. D., Elder, G. H., & Simons, R. L. (1994). Trajectories of stressful life events and depressive symptoms during adolescence. *Developmental Psychology*, 30(4), 467-483.
- Gecas, V. (1989). The social psychology of self-efficacy. *Annual Review of Sociology*, 15(1), 291-316.
- Gentry, J. W., Tansuhaj, P., Manzer, L. L., & John, J. (1988). Do geographic subcultures vary culturally?. *ACR North American Advances*, 15, 411-417.
- George, J. M. (1991). Time Structure and Purpose as a Mediator of Work-Life Linkages. *Journal of Applied Social Psychology*, 21(4), 296-314.
- Ger, G., & Belk, R. W. (1996). Cross-cultural differences in materialism. *Journal of Economic Psychology*, 17(1), 55-77.
- Glenn, N. D. (1976). Cohort analysts' futile quest: Statistical attempts to separate age, period and cohort effects. *American Sociological Review*, 41(5), 900-904.
- Górnik-Durose, M. E., & Boroń, K. (2018). Not materialistic, just neurotic. The mediating effect of neuroticism on the relationship between attitudes to material assets and well-being. *Personality and Individual Differences*, 123, 27-33.
- Goldberg, M. E., Gorn, G. J., Peracchio, L. A., & Bamossy, G. (2003). Understanding materialism among youth. *Journal of Consumer Psychology*, 13(3), 278-288.

- Gouveia, V. V., Vione, K. C., Milfont, T. L., & Fischer, R. (2015). Patterns of value change during the life span: Some evidence from a functional approach to values. *Personality and Social Psychology Bulletin*, 41(9), 1276-1290.
- Gross, J. J., & Levenson, R. W. (1997). Hiding feelings: the acute effects of inhibiting negative and positive emotion. *Journal of Abnormal Psychology*, 106(1), 95-103.
- Guevarra, D. A., & Howell, R. T. (2015). To have in order to do: Exploring the effects of consuming experiential products on well-being. *Journal of Consumer Psychology*, 25(1), 28-41.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. & Tatham, R.L. (2006), *Multivariate Data Analysis*, (6th ed.). New Jersey, NJ: Pearson Prentice Hall
- Hair Jr, J. F., Anderson, R. E., Tatham, R. L., & Black W. C. (1995). *Multivariate data analysis with readings*. New Jersey, NJ: Pearson Prentice Hall.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). *Multivariate data analysis* (Vol. 5, No. 3, pp. 207-219). New Jersey, NJ: Pearson Prentice hall.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, 1-17.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152.
- Hamarat, E., Thompson, D., Steele, D., Matheny, K., & Simons, C. (2002). Age differences in coping resources and satisfaction with life among middle-aged, young-old, and oldest-old adults. *The Journal of Genetic Psychology*, 163(3), 360-367.

- Hanson, D., & Grimmer, M. (2007). The mix of qualitative and quantitative research in major marketing journals, 1993-2002. *European Journal of Marketing*, 41(1/2), 58-70.
- Harding, D. J., & Jencks, C. (2003). Changing attitudes toward premarital sex: Cohort, period, and aging effects. *The Public Opinion Quarterly*, 67(2), 211-226.
- Hayes, J., Schimel, J., Arndt, J., & Faucher, E. H. (2010). A theoretical and empirical review of the death-thought accessibility concept in terror management research. *Psychological Bulletin*, 136(5), 699-739.
- Hayes, N., & Joseph, S. (2003). Big 5 correlates of three measures of subjective well-being. *Personality and Individual Differences*, 34(4), 723-727.
- Headey, B., & Wearing, A. (1989). Personality, life events, and subjective well-being: Toward a dynamic equilibrium model. *Journal of Personality and Social Psychology*, 57(4), 731-739.
- Hearn, S., Saulnier, G., Strayer, J., Glenham, M., Koopman, R., & Marcia, J. E. (2012). Between integrity and despair: Toward construct validation of Erikson's eighth stage. *Journal of Adult Development*, 19(1), 1-20.
- Heckhausen, J., Dixon, R. A., & Baltes, P. B. (1989). Gains and losses in development throughout adulthood as perceived by different adult age groups. *Developmental Psychology*, 25(1), 109-121.
- Henderson, L. W., & Knight, T. (2012). Integrating the hedonic and eudaimonic perspectives to more comprehensively understand wellbeing and pathways to wellbeing. *International Journal of Well-being*, 2(3), 196-221.
- Herzog, A. R., & Rodgers, W. L. (1981). Age and satisfaction: Data from several large surveys. *Research on Aging*, 3(2), 142-165.
- Hill, R. E., & Miller, E. L. (1981). Job change and the middle seasons of a man's life. *Academy of Management Journal*, 24(1), 114-127.



- Hinz, A., Conrad, I., Schroeter, M. L., Glaesmer, H., Brähler, E., Zenger, M., & Herzberg, P. Y. (2018). Psychometric properties of the Satisfaction with Life Scale (SWLS), derived from a large German community sample. *Quality of Life Research*, 1-10.
- Hirschman, E. C. (1991). Presidential Address Secular Mortality and the Dark Side of Consumer Behavior: Or How Semiotics Saved My Life. *ACR North American Advances* (pp.1-4). Provo, UT: Association for Consumer Research.
- Hofstede, G (1991). Management in a Multicultural Society. *Malaysian Management Review* , 26, 3–12
- Hogg, M. A. (2000). Subjective uncertainty reduction through self-categorization: A motivational theory of social identity processes. *European Review of Social Psychology*, 11(1), 223-255.
- Holsizer, D., Murphy, M., Noam, G., Taylor, C., Erikson, E., & Erikson, J. (1982). On generativity and identity: From a conversation with Erik and Joan Erikson. *Harvard Educational Review*, 51, 249–269.
- Holt, D. B. (1995). How consumers consume: A typology of consumption practices. *Journal of Consumer Research*, 22(1), 1-16.
- Hoque, A. S. M. M., & Awang, Z. (2016). Exploratory Factor Analysis of Entrepreneurial Marketing: Scale Development and Validation in the SME Context of Bangladesh. In *And Tourism Research Conference 20-22 April 2016* (p. 22).
- Hu, L. T., & Bentler, P. M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modelling: A Multidisciplinary Journal*, 6(1), 1-55.
- Hudders, L., & Pandelaere, M. (2012). The silver lining of materialism: The impact of luxury consumption on subjective well-being. *Journal of Happiness Studies*, 13(3), 411-437.



- Huta, V., & Ryan, R. M. (2010). Pursuing pleasure or virtue: The differential and overlapping well-being benefits of hedonic and eudaimonic motives. *Journal of Happiness Studies*, 11(6), 735-762.
- Inglehart, R. (1981). Post-materialism in an environment of insecurity. *American Political Science Review*, 75(4), 880-900.
- Inglehart, R. (1990). *Culture shift in advanced industrial society*. Princeton University Press.
- Inglehart, R., & Rabier, J. R. (1986). Aspirations adapt to situations—but why are the Belgians so much happier than the French? A cross-cultural analysis of the subjective quality of life. *Research on the Quality of Life. Ann Arbor: Institute for Social Research University of Michigan*.
- Irion, J. C., & Blanchard-Fields, F. (1987). A cross-sectional comparison of adaptive coping in adulthood. *Journal of Gerontology*, 42(5), 502-504.
- Jang, Y., Borenstein, A. R., Chiriboga, D. A., & Mortimer, J. A. (2005). Depressive symptoms among African American and white older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 60(6), 313-319.
- Jang, Y., Haley, W. E., Small, B. J., & Mortimer, J. A. (2002). The role of mastery and social resources in the associations between disability and depression in later life. *The Gerontologist*, 42(6), 807-813.
- Jansson-Boyd, C. V. (2011). The role of touch in marketing: an introduction to the special issue. *Psychology & Marketing*, 28(3), 219-221.
- Jaspers, E. D., & Pieters, R. G. (2016). Materialism across the life span: An age-period-cohort analysis. *Journal of personality and social psychology*, 111(3), 451.
- Jonas, E., Schimel, J., Greenberg, J., & Pyszczynski, T. (2002). The Scrooge effect: Evidence that mortality salience increases prosocial attitudes and behavior. *Personality and Social Psychology Bulletin*, 28(10), 1342-1353.

- Joy, R. H. (1991). *Path analytic investigation of stress-symptom relationships: Physical and psychological symptom models* (Doctoral dissertation, University of Illinois at Urbana-Champaign).
- Jung, K., & Kau, A. K. U. (2004). Culture's influence on consumer behaviors: differences among ethnic groups in a multiracial Asian country. *Advances in Consumer Research*, 31(1), 366-372.
- Jung, S. E., Bishop, A. J., Kim, M., Hermann, J., Kim, G., & Lawrence, J. (2017). Does Depressive Affect Mediate the Relationship between Self-Care Capacity and Nutritional Status Among Rural Older Adults?: A Structural Equation Modeling Approach. *Journal of Nutrition in Gerontology and Geriatrics*, 36(1), 63-74.
- Kahneman, D. (1999). Objective happiness. *Well-being: The Foundations of Hedonic Psychology*, 3-25.
- Kahneman, D., Diener, E., & Schwarz, N. (Eds.). (1999). *Well-being: Foundations of hedonic psychology*. New York, NY: Russell Sage Foundation.
- Kail, R. V., & Cavanaugh, J. C. (2010). The study of human development. *Human Development: A Life-span View*, 7-11.
- Kang, S. M., Shaver, P. R., Sue, S., Min, K. H., & Jing, H. (2003). Culture-specific patterns in the prediction of life satisfaction: Roles of emotion, relationship quality, and self-esteem. *Personality and Social Psychology Bulletin*, 29(12), 1596-1608.
- Karabati, S., & Cemalcilar, Z. (2010). Values, materialism, and well-being: A study with Turkish university students. *Journal of Economic Psychology*, 31(4), 624-633.
- Kashdan, T. B., & Breen, W. E. (2007). Materialism and diminished well-being: Experiential avoidance as a mediating mechanism. *Journal of Social and Clinical Psychology*, 26(5), 521-539.

- Kasser, T. (2016). Materialistic values and goals. *Annual Review of Psychology*, 67, 489-514.
- Kasser, T., & Ahuvia, A. (2002). Materialistic values and well-being in business students. *European Journal of Social Psychology*, 32(1), 137-146.
- Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: correlates of financial success as a central life aspiration. *Journal of Personality and Psychology*, 65(2), 410-422.
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22(3), 280-287.
- Kasser, T., Rosenblum, K. L., Sameroff, A. J., Deci, E. L., Niemiec, C. P., Ryan, R. M., & Hawks, S. (2014). Changes in materialism, changes in psychological well-being: Evidence from three longitudinal studies and an intervention experiment. *Motivation and Emotion*, 38(1), 1-22.
- Kasser, T. (2018). Materialism and living well. *Handbook of well-being*. Salt Lake City, UT: DEF Publishers. DOI: nobascholar. com.
- Kassim, N. M., Bogari, N., Salamah, N., & Zain, M. (2016). Product status signaling as mediator between materialism and product satisfaction of Saudis and Malaysians. *Social Behavior and Personality: An International Journal*, 44(6), 973-985.
- Keister, K. J. (2006). Predictors of self-assessed health, anxiety, and depressive symptoms in nursing home residents at week 1 postrelocation. *Journal of Aging and Health*, 18(5), 722-742.
- Keith, P. (2004). Resources, family ties, and well-being of never-married men and women. *Journal of Gerontological Social Work*, 42(2), 51-75.
- Kelley, K., & Preacher, K. J. (2012). On effect size. *Psychological Methods*, 17(2), 137-152.

- Keng, K. A., Jung, K., Jiu, T. S., & Wirtz, J. (2000). The influence of materialistic inclination on values, life satisfaction and aspirations: An empirical analysis. *Social Indicators Research*, 49(3), 317-333.
- Keshavarz, S., & Baharudin, R. (2009). Parenting style in a collectivist culture of Malaysia. *European Journal of Social Sciences*, 10(1), 66-73.
- Kessler, R. C., & Essex, M. (1982). Marital status and depression: The importance of coping resources. *Social Forces*, 61(2), 484-507.
- Kish-Gephart, J. J., Harrison, D. A., & Treviño, L. K. (2010). Bad apples, bad cases, and bad barrels: Meta-analytic evidence about sources of unethical decisions at work. *Journal of Applied Psychology*, 95(1), 1-31.
- Kiran, K., & Diljit, S. (2017). Antecedents of customer loyalty: Does service quality suffice?. *Malaysian Journal of Library & Information Science*, 16(2), 95-113.
- Kline, R. B. (2005). *Methodology in the social sciences*. New York: Guilford Press.
- Kline, R. B. (2011). Convergence of structural equation modeling and multilevel modeling. In M. Williams (Ed.), *Handbook of methodological innovation*. Thousand Oaks, CA: Sage.
- Koivumaa-Honkanen, H., Kaprio, J., Honkanen, R., Viinamäki, H., & Koskenvuo, M. (2004). Life satisfaction and depression in a 15-year follow-up of healthy adults. *Social Psychiatry and Psychiatric Epidemiology*, 39(12), 994-999.
- Kousha, M., & Mohseni, N. (2000). Are Iranians happy? A comparative study between Iran and the United States. *Social Indicators Research*, 52(3), 259-289.
- Kuppens, P., Realo, A., & Diener, E. (2008). The role of positive and negative emotions in life satisfaction judgment across nations. *Journal of Personality and Social Psychology*, 95(1), 66-75.

- LaBarbera, P. A., & Gürhan, Z. (1997). The role of materialism, religiosity, and demographics in subjective well-being. *Psychology & Marketing*, 14(1), 71-97.
- Lachman, M. E. (1986). Locus of control in aging research: A case for multidimensional and domain-specific assessment. *Psychology and Aging*, 1(1), 34-40.
- Lachman, M. E., & Weaver, S. L. (1998). The sense of control as a moderator of social class differences in health and well-being. *Journal of Personality and Social Psychology*, 74(3), 763-773.
- Lam, T., & Hsu, C. H. (2006). Predicting behavioral intention of choosing a travel destination. *Tourism Management*, 27(4), 589-599.
- Larson, R. (1978). Thirty years of research on the subjective well-being of older Americans. *Journal of Gerontology*, 33(1), 109-125.
- Latham-Mintus, K., Vowels, A., & Huskins, K. (2017). Healthy Aging Among Older Black and White Men: What Is the Role of Mastery?. *The Journals of Gerontology: Series B*, 73(2), 248-257.
- Lee, H. A. & Khalid, M. A. (2009). Degrees of discrimination: race & graduate hiring in Malaysia. Retrieved from [http://umexpert.um.edu.my/file/publication/00006071\\_99752.pdf](http://umexpert.um.edu.my/file/publication/00006071_99752.pdf)
- Legatum Prosperity Index. (2016). Retrieved from [https://www.prosperity.com/download\\_file/view\\_inline/2857](https://www.prosperity.com/download_file/view_inline/2857)
- Lekes, N., Hope, N. H., Gouveia, L., Koestner, R., & Philippe, F. L. (2012). Influencing value priorities and increasing well-being: The effects of reflecting on intrinsic values. *The Journal of Positive Psychology*, 7(3), 249-261.
- Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology*, 71(3), 616-628.

- Lucas, R. E., Diener, E., Grob, A., Suh, E. M., & Shao, L. (2000). Cross-cultural evidence for the fundamental features of extraversion. *Journal of Personality and Social Psychology*, 79(3), 452-468.
- Lykken, D., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science*, 7(3), 186-189.
- MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research*, 39(1), 99-128.
- Magnus, K., Diener, E., Fujita, F., & Pavot, W. (1993). Extraversion and neuroticism as predictors of objective life events: a longitudinal analysis. *Journal of Personality and Social Psychology*, 65(5), 1046-1053.
- Mansor, A. T., Ang, C. S., & Tan, K. A. (2014). Pangs of loneliness breed material lifestyle but don't power up life satisfaction of young people: The moderating effect of gender. *Social Indicators Research*, 117(2), 353-365.
- Maio, G. R., Pakizeh, A., Cheung, W. Y., & Rees, K. J. (2009). Changing, priming, and acting on values: effects via motivational relations in a circular model. *Journal of Personality and Social Psychology*, 97(4), 699-715.
- Maslow, A. H. (1954). The instinctual nature of basic needs. *Journal of Personality*, 22(3), 326-347.
- Mausbach, B. T., Patterson, T. L., Rabinowitz, Y. G., Grant, I., & Schulz, R. (2007). Depression and distress predict time to cardiovascular disease in dementia caregivers. *Health Psychology*, 26(5), 539-544.
- Mayer, K. U., & Tuma, N. B. (Eds.). (1990). *Event history analysis in life course research*. Madison, WI: University of Wisconsin Press.
- McAdams, D. P., & de St Aubin, E. D. (1992). A theory of generativity and its assessment through self-report, behavioral acts, and narrative themes in autobiography. *Journal of Personality and Social Psychology*, 62(6), 1003-1015.



- McAdams, D. P., de St Aubin, E. D., & Logan, R. L. (1993). Generativity among young, midlife, and older adults. *Psychology and Aging*, 8(2), 221-230.
- McGregor, I., & Little, B. R. (1998). Personal projects, happiness, and meaning: on doing well and being yourself. *Journal of Personality and Social Psychology*, 74(2), 494-512.
- McLeod, J. D., & Almazan, E. P. (2003). Connections between childhood and adulthood. In *Handbook of the life course* (pp. 391-411). Springer, Boston, MA.
- Merton, R. K. (1968). *Social theory and social structure*. New York: Free Press.
- Mick, D. G. (1996). Are studies of dark side variables confounded by socially desirable responding? The case of materialism. *Journal of Consumer Research*, 23(2), 106-119.
- Mikulincer, M., & Shaver, P.R. (2008). An attachment perspective on bereavement. In M. Stroebe, H. A. Hansson, H. Schut, & W. Stroebe (Eds.), *Handbook of bereavement research and practice: 21st century perspective* (2nd ed.). Washington, DC: American Psychological Association.
- Ministry of Human Resources. (2017). MOHR Portfolio. Retrieved from <https://bowvalleycollege.libguides.com/c.php?g=494959&p=3386853>
- Minton, E. A., Kahle, L. R., Juan, T. S., & Tambyah, S. K. (2016). Addressing Criticisms of Global Religion Research: A Consumption-Based Exploration of Status and Materialism, Sustainability, and Volunteering Behavior. *Journal for the Scientific Study of Religion*, 55(2), 365-383.
- Mirowsky, J. (1995). Age and the sense of control. *Social Psychology Quarterly*, 31-43.
- Mirowsky, J., & Ross, C. E. (1992). Age and depression. *Journal of Health and Social Behavior*, 187-205.

- Mirowsky, J. (2013). Analyzing associations between mental health and social circumstances. In C. S. Aneshensel & J. C. Phelan (Eds.), *Handbook of the Sociology of Mental Health* (pp. 105- 126). New York: Kluwer Academic/Plenum
- Mitchell, T. R., & Mickel, A. E. (1999). The meaning of money: An individual-difference perspective. *Academy of Management Review*, 24(3), 568-578.
- Mohamed, N. A., D'Silva, J. L., Samah, A. A., Shafril, H. A. M., & Dahalan, D. (2018). Exploring contributing factors on holistic well-being among Malaysian youth. *International Journal of Academic Research in Business and Social Sciences*, 8(3), 391 - 400
- Mokhlis, S. (2006). The effect of religiosity on shopping orientation: an exploratory study in Malaysia. *Journal of American Academy of Business*, 9(1), 64-74.
- Momtaz, Y. A., Hamid, T. A., Haron, S. A., & Bagat, M. F. (2016). Flourishing in later life. *Archives of Gerontology and Geriatrics*, 63, 85-91.
- Moore, R. L., & Moschis, G. P. (1981). The role of family communication in consumer learning. *Journal of Communication*, 31(4), 42-51.
- Moschis, G. P. (1987). *Consumer socialization: A life-cycle perspective*. Lexington, MA: Lexington Books.
- Moschis, G. P., & Churchill Jr, G. A. (1978). Consumer socialization: A theoretical and empirical analysis. *Journal of Marketing Research*, 599-609.
- Moschis, G. P., Hosie, P., & Vel, P. (2009). Effects of family structure and socialization on materialism: A life course study in Malaysia. *Journal of Business and Behavioural Sciences*, 21(1), 166-181.
- Mroczek, D. K., & Kolarz, C. M. (1998). The effect of age on positive and negative affect: a developmental perspective on happiness. *Journal of Personality and Social Psychology*, 75(5), 1333-1349.



- Mroczek, D. K., & Spiro III, A. (2005). Change in life satisfaction during adulthood: findings from the veterans affairs normative aging study. *Journal of Personality and Social Psychology*, 88(1), 189-202.
- Myers, D. G., & Diener, E. (2018). The scientific pursuit of happiness. *Perspectives on Psychological Science*, 13(2), 218-225.
- Nagpaul, T., & Pang, J. S. (2017). Materialism lowers well-being: The mediating role of the need for autonomy—correlational and experimental evidence. *Asian Journal of Social Psychology*, 20(1), 11-21.
- Neugarten, B. L. (1973). Personality change in late life: A developmental perspective. *The Psychology of Adult Development and Aging*. Washington, DC: American Psychological Association.
- Nicolaisen, M., Moum, T., & Thorsen, K. (2017). Mastery and Depressive Symptoms: How Does Mastery Influence the Impact of Stressors From Midlife to Old Age?. *Journal of Aging and Health*. 00(0), 1-24
- Noguti, V., & Bokeyar, A. L. (2014). Who am I? The relationship between self-concept uncertainty and materialism. *International Journal of Psychology*, 49(5), 323-333.
- Nolan, R. E., & Kadavil, N. (2003). Vaillant's contribution to research and theory of adult development. *Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education*, 50-75.
- Nurmi, J. E. (1991). How do adolescents see their future? A review of the development of future orientation and planning. *Developmental Review*, 11(1), 1-59.
- Orlofsky, J. L. (1978). Identity formation, nAchievement, and fear of success in college men and women. *Journal of Youth and Adolescence*, 7(1), 49-62.
- Paquet, C., Dubé, L., Gauvin, L., Kestens, Y., & Daniel, M. (2010). Sense of mastery and metabolic risk: moderating role of the local fast-food environment. *Psychosomatic Medicine*, 72(3), 324-331.

Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment*, 5(2), 164-172.

Pavot, W., & Diener, E. (2003). Well-being (including life satisfaction). *Encyclopedia of Psychological Assessment*, 2, 1097-1101.

Pearlin, L. I. (1999). The stress process revisited. In *Handbook of the sociology of mental health* (pp. 395-415). Springer, Boston, MA.

Pearlin, L. I. (2009). The life course and the stress process: Some conceptual comparisons. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 65(2), 207-215.

Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior*, 2-21.

Pearlin, L. I., & Skaff, M. M. (1996). Stress and the life course: A paradigmatic alliance. *The Gerontologist*, 36(2), 239-247.

Peck R. C. (1968). *Psychological developments in the second half of life*. In Neugarten B. L, editor. (Ed.), *Middle age and aging* (pp. 88–92). Chicago: University of Chicago Press.

Peterson, C. C. (1996). The ticking of the social clock: Adults' beliefs about the timing of transition events. *The International Journal of Aging and Human Development*, 42(3), 189-203.

Pieters, R. (2013). Bidirectional dynamics of materialism and loneliness: Not just a vicious cycle. *Journal of Consumer Research*, 40(4), 615-631.

Pitkala, K. H., Laakkonen, M. L., Strandberg, T. E., & Tilvis, R. S. (2004). Positive life orientation as a predictor of 10-year outcome in an aged population. *Journal of Clinical Epidemiology*, 57(4), 409-414.

- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Polak, E. L., & McCullough, M. E. (2006). Is gratitude an alternative to materialism?. *Journal of Happiness Studies*, 7(3), 343-360.
- Popper, K. R. (1959). *The logic of scientific discovery*. New York, NY: Basic Books.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879-891.
- Prenda, K. M., & Lachman, M. E. (2001). Planning for the future: a life management strategy for increasing control and life satisfaction in adulthood. *Psychology and Aging*, 16(2), 206-216.
- Pudrovskaya, T., Schieman, S., Pearlin, L. I., & Nguyen, K. (2005). The sense of mastery as a mediator and moderator in the association between economic hardship and health in late life. *Journal of Aging and Health*, 17(5), 634-660.
- Quaddus, M., & Hofmeyer, G. (2007). An investigation into the factors influencing the adoption of B2B trading exchanges in small businesses. *European Journal of Information Systems*, 16 (3), 202-215.
- Rakrachakarn, V., Moschis, G. P., Ong, F. S., & Shannon, R. (2015). Materialism and life satisfaction: The role of religion. *Journal of Religion and Health*, 54(2), 413-426.
- Rand, A. (1967), *Capitalism: The Unknown Ideal*. New York: The New American Library.
- Richins, M. L. (1987). Media, materialism, and human happiness. *ACR North American Advances*. 14, 352-356.

- Richins, M. L. (1994). Special possessions and the expression of material values. *Journal of Consumer Research*, 21(3), 522-533.
- Richins, M. L. (2004). The material values scale: Measurement properties and development of a short form. *Journal of Consumer Research*, 31(1), 209-219.
- Richins, M. L. (2011). Materialism, transformation expectations, and spending: Implications for credit use. *Journal of Public Policy & Marketing*, 30(2), 141-156.
- Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*, 19(3), 303-316.
- Richins, M. L. (2017). Materialism pathways: The processes that create and perpetuate materialism. *Journal of Consumer Psychology*, 27(4), 480-499.
- Rindfleisch, A., & Burroughs, J. E. (2004). Terrifying thoughts, terrible materialism? Contemplations on a terror management account of materialism and consumer behavior. *Journal of Consumer Psychology*, 14(3), 219-224.
- Rindfleisch, A., Burroughs, J. E., & Denton, F. (1997). Family structure, materialism, and compulsive consumption. *Journal of Consumer Research*, 23(4), 312-325.
- Roberts, B. W., & Mroczek, D. (2008). Personality trait change in adulthood. *Current Directions in Psychological Science*, 17(1), 31-35.
- Roberts, J. A., & Clement, A. (2007). Materialism and satisfaction with over-all quality of life and eight life domains. *Social Indicators Research*, 82(1), 79-92.
- Roberts, J. A., Manolis, C., & Tanner Jr, J. F. (2003). Family structure, materialism, and compulsive buying: A reinquiry and extension. *Journal of the Academy of Marketing Science*, 31(3), 300-311.
- Roberts, J. A., Tanner, J. F., & Manolis, C. (2005). Materialism and the family structure–stress relation. *Journal of Consumer Psychology*, 15(2), 183-190.

- Roberts, J.A., & Roberts, C.F. (2012). Money matters: Does the symbolic presence of money affect charitable giving and attitudes among adolescents? *Young Consumers*, 13, 329–336.
- Robinson, M. D., & Clore, G. L. (2002). Belief and feeling: evidence for an accessibility model of emotional self-report. *Psychological Bulletin*, 128(6), 934-960.
- Röcke, C. (2016). *Life Satisfaction. The Encyclopaedia of Adulthood and Aging*. New York: John Wiley & Sons, Inc.
- Rodin, J., & Timko, C. (1992). Sense of control, aging, and health. In *Aging, Health, Aging, Health, and Behavior*, edited by M. G. Ory, R. P. Abeles, and P. D. Lipman, (pp. 174–206). Newbury Park, CA: Sage.
- Rokeach, M. (1968). *Beliefs, attitudes, and values: A theory of organization and change* (pp.161). San Francisco: Jossey-Bass.
- Rokeach, M. J. (1973), *The Nature of Human Values*. New York: The Free Press.
- Ross, C. E., & Mirowsky, J. (1987). Normlessness, powerlessness, and trouble with the law. *Criminology*, 25(2), 257-278.
- Ross, C. E., & Mirowsky, J. (1999). Refining the association between education and health: the effects of quantity, credential, and selectivity. *Demography*, 36(4), 445-460.
- Ross, C. E., & Mirowsky, J. (2002). Age and the gender gap in the sense of personal control. *Social Psychology Quarterly*, 125-145.
- Ross, C. E., & Mirowsky, J. (2006). Sex differences in the effect of education on depression: resource multiplication or resource substitution?. *Social Science & Medicine*, 63(5), 1400-1413.

- Rosenthal, D. A., Gurney, R. M., & Moore, S. M. (1981). From trust on intimacy: A new inventory for examining Erikson's stages of psychosocial development. *Journal of Youth and Adolescence*, 10(6), 525-537.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological monographs: General and Applied*, 80(1), 1-28.
- Ryan, L., & Dziurawiec, S. (2001). Materialism and its relationship to life satisfaction. *Social Indicators Research*, 55(2), 185-197.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54-67.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(1), 141-166.
- Ryan, R. M., Chirkov, V. I., Little, T. D., Sheldon, K. M., Timoshina, E., & Deci, E. L. (1999). The American dream in Russia: Extrinsic aspirations and well-being in two cultures. *Personality and Social Psychology Bulletin*, 25(12), 1509-1524.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-1081.
- Ryff, C. D. (1991). Possible selves in adulthood and old age: A tale of shifting horizons. *Psychology and Aging*, 6(2), 286-295.
- Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry*, 9(1), 1-28.
- Rynes, S. L., & Gerhart, B. (2000). *Compensation in organizations. Current Research and Practices*. San Francisco, CA: Jossey-Bass.

- Saegert, J., Hoover, R. J., & Hilger, M. T. (1985). Characteristics of Mexican American consumers. *Journal of Consumer Research*, 12, 104-109.
- Sarason, I. G., Johnson, J. H., & Siegel, J. M. (1978). Assessing the impact of life changes: development of the Life Experiences Survey. *Journal of Consulting and Clinical Psychology*, 46(5), 932-946.
- Sardžoska, E. G., & Tang, T. L. P. (2012). Work-related behavioral intentions in Macedonia: Coping strategies, work environment, love of money, job satisfaction, and demographic variables. *Journal of Business Ethics*, 108(3), 373-391.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students*. Pearson Education.
- Schieman, S., & Turner, H. A. (1998). Age, disability, and the sense of mastery. *Journal of Health and Social Behavior*, 39, 169-186.
- Schieman, S., Van Gundy, K., & Taylor, J. (2001). Status, role, and resource explanations for age patterns in psychological distress. *Journal of Health and Social Behavior*, 42, 80-96.
- Schimmack, U., Diener, E., & Oishi, S. (2002). Life-satisfaction is a momentary judgment and a stable personality characteristic: The use of chronically accessible and stable sources. *Journal of Personality*, 70(3), 345-384.
- Schmuck, P., Kasser, T., & Ryan, R. M. (2000). Intrinsic and extrinsic goals: Their structure and relationship to well-being in German and US college students. *Social Indicators Research*, 50(2), 225-241.
- Schroots, J. J. (1996). Theoretical developments in the psychology of aging. *The Gerontologist*, 36(6), 742-748.
- Schudson, M. (1991). Delectable materialism: Were the critics of consumer culture wrong all along. *The American Prospect*, 2(5), 26-35.



- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology*, 25, 1-65.
- Schwartz, S. H. (1994). Are there universal aspects in the structure and contents of human values?. *Journal of Social Issues*, 50(4), 19-45.
- Schwartz, S. H., & Rubel, T. (2005). Sex differences in value priorities: cross-cultural and multimethod studies. *Journal of Personality and Social Psychology*, 89(6), 1010-1028.
- Schwartz, S. H., & Rubel-Lifschitz, T. (2009). Cross-national variation in the size of sex differences in values: Effects of gender equality. *Journal of Personality and Social Psychology*, 97(1), 171-185.
- Seeman, M. (1991). Alienation and anomie. *Measures of Personality and Social Psychological Attitudes*, 1, 291-371.
- Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: empirical validation of interventions. *American Psychologist*, 60(5), 410-421.
- Shanahan, M. J., & Bauer, D. J. (2004). Developmental properties of transactional models: The case of life events and mastery from adolescence to young adulthood. *Development and Psychopathology*, 16(4), 1095-1117.
- Sheldon, K. M., & Kasser, T. (2001). Getting older, getting better? Personal strivings and psychological maturity across the life span. *Developmental Psychology*, 37(4), 491-501.
- Shin, D. C., & Johnson, D. M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, 5(1-4), 475-492.
- Showers, C. J. (1992). Compartmentalization of positive and negative self-knowledge: Keeping bad apples out of the bunch. *Journal of Personality and Social Psychology*, 62, 1036-1049.

- Showers, C. J., Zeigler-Hill, V., & Limke, A. (2006). Self-structure and childhood maltreatment: Successful compartmentalization and the struggle of integration. *Journal of Social and Clinical Psychology, 25*(5), 473-507.
- Shrum, L. J., Wong, N., Arif, F., Chugani, S. K., Gunz, A., Lowrey, T. M., ... & Scott, K. (2013). Reconceptualizing materialism as identity goal pursuits: Functions, processes, and consequences. *Journal of Business Research, 66*(8), 1179-1185.
- Shrum, L. J., & Rustagi, N. (2017). Materialism: Conceptualizations, Antecedents, and Consequences. In *The Routledge Companion to Consumer Behavior* (pp. 49-65). Routledge.
- Sidhu, J. K., & Foo, K. H. (2015). Materialism: The road to happiness and life satisfaction among Singaporeans. *The Journal of Happiness & Well-Being, 3*(1), 77-92.
- Sirgy, M. J. (1998). Materialism and quality of life. *Social Indicators Research, 43*(3), 227-260.
- Skinner, E. A. (1996). A guide to constructs of control. *Journal of Personality and Social Psychology, 71*(3), 549-570.
- Slagsvold, B., & Sørensen, A. (2008). Age, education, and the gender gap in the sense of control. *The International Journal of Aging and Human Development, 67*(1), 25-42.
- Solberg, E.C., Diener, E., & Robinson, M. (2004). Why are materialists less satisfied? In T. Kasser & A.D. Kanner (Eds.), *Psychology and consumer culture: The struggle for a good life in a materialistic world* (pp. 29-48). Washington, DC: American Psychological Association.
- Somer, E., & Ruvio, A. (2014). The Going Gets Tough, So Let's Go Shopping: On Materialism, Coping, and Consumer Behaviors Under Traumatic Stress. *Journal of Loss and Trauma, 19*(5), 426-441.

- Sood, J., & Nasu, Y. (1995). Religiosity and nationality: An exploratory study of their effect on consumer behavior in Japan and the United States. *Journal of Business Research*, 34(1), 1-9.
- Srivastava, S., John, O. P., Gosling, S. D., & Potter, J. (2003). Development of personality in early and middle adulthood: Set like plaster or persistent change?. *Journal of Personality and Social Psychology*, 84(5), 1041-1053.
- Staudinger, U. M., Maciel, A. G., Smith, J., & Baltes, P. B. (1998). What predicts wisdom-related performance? A first look at personality, intelligence, and facilitative experiential contexts. *European Journal of Personality*, 12(1), 1-17.
- Staudinger, U. M., Marsiske, M., & Baltes, P. B. (1995). Resilience and reserve capacity in later adulthood: Potentials and limits of development across the life span. *Developmental Psychopathology*, 2, 801-847.
- Stephoe, A., Deaton, A., & Stone, A. A. (2015). Subjective wellbeing, health, and ageing. *The Lancet*, 385(9968), 640-648.
- Stillman, T. F., Fincham, F. D., Vohs, K. D., Lambert, N. M., & Phillips, C. A. (2012). The material and immaterial in conflict: Spirituality reduces conspicuous consumption. *Journal of Economic Psychology*, 33(1), 1-7.
- Stolarski, M., & Matthews, G. (2016). Time perspectives predict mood states and satisfaction with life over and above personality. *Current Psychology*, 35(4), 516-526.
- Suh, E., Diener, E., Oishi, S., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Journal of Personality and Social Psychology*, 74(2), 482-493.
- Swinyard, W. R., Kau, A. K., & Phua, H. Y. (2001). Happiness, materialism, and religious experience in the US and Singapore. *Journal of Happiness Studies*, 2, 13-32.

- Switek, M., & Easterlin, R. A. (2018). Life transitions and life satisfaction during young adulthood. *Journal of Happiness Studies*, 19(1), 297-314.
- Tabachnick, B. G., & Fidell, L. S. (2007). Multivariate analysis of variance and covariance. *Using multivariate statistics*, 3, 402-407.
- Tang, T. L. P., & Liu, H. (2012). Love of money and unethical behavior intention: Does an authentic supervisor's personal integrity and character (ASPIRE) make a difference?. *Journal of Business Ethics*, 107(3), 295-312.
- Tang, T. L. P., & Tang, T. L. N. (2012). The love of money, pay satisfaction and academic tenure: professors in a public institution of higher education. *Public Personnel Management*, 41(1), 97-126.
- Tang, T. L. P., Luna-Arocas, R., Pardo, I. Q., & Tang, T. L. N. (2014). Materialism and the bright and dark sides of the financial dream in Spain: The positive role of money attitudes—The Matthew Effect. *Applied Psychology*, 63(3), 480-508.
- Tang, T. L. P., Sutarso, T., Akande, A., Allen, M. W., Alzubaidi, A. S., Ansari, M. A., & Cheng, B. S. (2006). The love of money and pay level satisfaction: Measurement and functional equivalence in 29 geopolitical entities around the world. *Management and Organization Review*, 2(3), 423-452.
- Tatzel, M. (2002). "Money worlds" and well-being: An integration of money dispositions, materialism and price-related behavior. *Journal of Economic Psychology*, 23(1), 103-126.
- Taylor, S.E., & Aspinwall, L.G. (1996). Mediating and moderating processes in psychosocial stress: appraisal, coping, resistance, and vulnerability. In *Psychosocial Stress, Perspective on Structure, Theory, Life-Course, and Methods*, ed. H Kaplan, (pp. 71–110) San Diego: Academic
- Tedeschi, R. G., & Calhoun, L.G. (1995). *Trauma and transformation: Growing in the aftermath of suffering*. Newbury Park, CA: Sage.

- Thoits, P. A. (1999). Sociological approaches to mental illness. *A Handbook for the study of mental health*, 121-138.
- Tipton, R. M., & Worthington, E. L. (1984). The measurement of generalized self-efficacy: A study of construct validity. *Journal of Personality Assessment*, 48(5), 545-548.
- Tobin, J. (2000). Using 'the Japanese problem' as a corrective to the ethnocentricity of Western theory. *Child Development*, 71(5), 1155-1158.
- Togari, T., & Yonekura, Y. (2015). A Japanese version of the Pearlin and Schooler's Sense of Mastery Scale. *Springer Plus*, 4(1), 399-403.
- Tooby, J., & Cosmides, L. (1992). The psychological foundations of culture. In J. H. Barkow, L. Cosmides, & J. Tooby (Eds.), *The adapted mind: Evolutionary psychology and the generation of culture* (pp. 19-136). New York: Oxford University Press.
- Tornstam, L. (1997). Gerotranscendence: The contemplative dimension of aging. *Journal of Aging Studies*, 11(2), 143-154.
- Tram, J. M., & Cole, D. A. (2000). Self-perceived competence and the relation between life events and depressive symptoms in adolescence: Mediator or moderator?. *Journal of Abnormal Psychology*, 109(4), 753-760.
- Trzcinski, E., & Holst, E. (2008). Subjective well-being among young people in transition to adulthood. *Social Indicators Research*, 87(1), 83-109.
- Turner, R. J., & Lloyd, D. A. (1999). The stress process and the social distribution of depression. *Journal of Health and Social Behavior*, 374-404.
- Turner, R. J., & Roszell, P. (1994). Psychosocial resources and the stress process. In *Stress and mental health* (pp. 179-210). Boston, MA: Springer,
- Unanue, W., Dittmar, H., Vignoles, V. L., & Vansteenkiste, M. (2014). Materialism and well-being in the UK and Chile: Basic need satisfaction and basic need

frustration as underlying psychological processes. *European Journal of Personality*, 28(6), 569-585.

Vaghefi, N., Kari, F., & Talib, M. A. (2016). Poverty and Income Replacement Profile Among EPF Retiree in Malaysia. *Social Indicators Research*, 132(3), 1065-1078.

Van Boven, L., & Gilovich, T. (2003). To do or to have? That is the question. *Journal of Personality and Social Psychology*, 85(6), 1193-1202.

Van Hiel, A., Cornelis, I., & Roets, A. (2010). To Have or To Be? A Comparison of Materialism-Based Theories and Self-Determination Theory as Explanatory Frameworks of Prejudice. *Journal of Personality*, 78(3), 1037-1070.

Vatikiotis, M. (1996). Material god: middle-class Thais pray for wealth in this world, not the next. *Far Eastern Economic Review*, 159, 62-63.

Veenhoven, R. (1991). Is happiness relative?. *Social Indicators Research*, 24(1), 1-34.

Veroff, J., Reuman, D., & Feld, S. (1984). Motives in American men and women across the adult life span. *Developmental Psychology*, 20(6), 1142-1158.

Vinzi, V., Chin, W. W., Henseler, J., & Wang, H. (2010). *Handbook of partial least squares*. Verlag Berlin Heidelberg, Germany: Springer

Vitaliano, P. P., Young, H. M., & Russo, J. (1991). Burden: A review of measures used among caregivers of individuals with dementia. *The Gerontologist*, 31(1), 67-75.

Vohs, K. D., Mead, N. L., & Goode, M. R. (2006). The psychological consequences of money. *Science*, 314, 1154-1156.

- Wallace, K. A., Bisconti, T. L., & Bergeman, C. S. (2001). The mediational effect of hardiness on social support and optimal outcomes in later life. *Basic and Applied social Psychology*, 23(4), 267-276.
- Wallace, W. P. (1965). Review of the historical, empirical, and theoretical status of the Von Restorff phenomenon. *Psychological Bulletin*, 63(6), 410-423.
- Watson, J. J. (2003). The relationship of materialism to spending tendencies, saving, and debt. *Journal of Economic Psychology*, 24(6), 723-739.
- Watson, D. C. (2017). Materialism, Temporal Orientation, and Well-Being. *Imagination, Cognition and Personality*, 37(1), 45-68.
- Weinstein, N., Przybylski, A. K., & Ryan, R. M. (2009). Can nature make us more caring? Effects of immersion in nature on intrinsic aspirations and generosity. *Personality and Social Psychology Bulletin*, 35(10), 1315-1329.
- Whitbourne, S. K., & Tesch, S. A. (1985). A comparison of identity and intimacy statuses in college students and alumni. *Developmental Psychology*, 21(6), 1039-1044.
- Wierzbicki, J., & Zawadzka, A.M. (2016). The effects of the activation of money and credit card versus that of activation of spirituality—which one prompts pro-social behaviours? *Current Psychology*, 35, 344-353.
- Wolinsky, F. D., Wyrwich, K. W., Babu, A. N., Kroenke, K., & Tierney, W. M. (2003). Age, aging, and the sense of control among older adults: A longitudinal reconsideration. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 58(4), 212-220.
- Wong, N., Rindfleisch, A., & Burroughs, J. E. (2003). Do reverse-worded items confound measures in cross-cultural consumer research? The case of the material values scale. *Journal of Consumer Research*, 30(1), 72-91.
- World Happiness Report. (2017). Retrieved from <https://s3.amazonaws.com/happiness-report/2017/HR17.pdf>



World Value Survey. (2016). *World Values Survey: Round Six - Country-Pooled Datafile* Version. Retrieved from [www.worldvaluessurvey.org/WVSDocumentationWV6.jsp](http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp).

Wright, N. D., & Larsen, V. (1993). Materialism and life satisfaction: A meta-analysis. *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 6(1), 158-165.

Yetim, U. (2003). The impacts of individualism/collectivism, self-esteem, and feeling of mastery on life satisfaction among the Turkish university students and academicians. *Social Indicators Research*, 61(3), 297-317.

Zhang, J. W., & Howell, R. T. (2011). Do time perspectives predict unique variance in life satisfaction beyond personality traits?. *Personality and Individual Differences*, 50(8), 1261-1266.

Zhou, K., Ye, L., Geng, L., & Xu, Q. (2015). How do implicit materialism and postmaterialism affect proenvironmental behavior? *Social Behavior and Personality: An International Journal*, 43(9), 1495-1505.