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Antecedents of compulsive buying behavior and the moderating role of perceived service quality

A thesis submitted in Partial Fulfillment for The Master Degree in Total Quality Management & Excellence

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DEDICATION

To my well-beloved mother, thanks abundant for the continuous and endless subsidize.

To the pure soul of my father I supplicate Allah to keep your soul in imperishable life in nirvana.

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Threshold, All praises due to Allah, the most merciful the most compassionate

Thank the sustainer for his incalculable bounties and blessings, will extend my gratitude to all lecturers in this beneficial program who have been working hardly day and night to put-on high-quality master program and exerted gargantuan efforts.

In effect, I could not find words to express my gratitude for my Supervisor Mr.Siddig Balal Ibrahim and Mr.Abdelsalam Adam Hamid for their tangible and touchable leadership and guidance, they delegated their time and efforts as well, you both worth my candle

As a matter of fact, this research has been bombastic room to learn and expand my horizon in all realms of life

This research is addressing very significant issue on compulsive buying behavior, I hope the implications I proved will help others and enlightens their foresight for better life and well-being.

ABSTRACT

In today's consumer society, shopping is an important aspect of our daily life. In effect, shopping attitudes may distinguish one county from another and reflects your financial situation and shows you preferences and life style. The purpose of this research is to investigate the relationship of compulsive buying with its antecedent. 395 self-administrated questionnaires were distributed among Sudanese markets and shopping malls visitors and consumers. The response rate was 85%. Collected data was analyzed using SPSS V25 and AMOS v25. EFA and CFA requirements were achieved for the model fit. Result of analysis shown that antecedents peer group stress, celebrities and Materialism are having the vigorous effect on compulsive buying behavior. Peer group was the most durable factors of compulsive buying behavior. Also, result have shown that perceived service quality was able to moderate the relation between antecedents and compulsive buying behavior. Marketers can use the outcome of this study to develop service value for their consumers, Psychologist can use this study in order to eliminate buying addition among buyers. Other researchers can also benefit from the development model. This study had classification scheme of compulsive buyers (compulsive, normal and non-compulsive), unlike previous dichotomous classification. This study also provides the first estimate of compulsive buying prevalence in Sudan.

Keywords: Compulsive Buying Behavior, Materialism, Stress, Peer Group, Celebrities, Perceived Service Quality.

نبذة مختصرة

في المجتمع الاستهلاكي لهذا العصر ، يُعد التسوق جانبًا مهمًا في حياتنا اليومية. في الواقع ، قد تتميز اتجاهات التسوق من بلد إلى آخر وتعكس وضع المستهلك المالي وتُظهر تفصيلاته وأسلوب حياته. الغرض من هذا البحث هو استكشاف علاقة الشراء القهري مع مسبباته. تم توزيع 395 استبيانًا علي الأسواق السودانية ومراكز التسوق والزوار والمستهلكين. كان معدل الاستجابة 85 ٪. تم تحليل البيانات التي تم جمعها باستخدام SPSS V25 و AMOS v25. تم تحقيق متطلبات التحليل العاملي الاستكشافي و التأكيدي لتناسب النموذج. نتج نموذج الدراسة المعدل لفحص الفرضيات. نتيجة للتحليل أظهرت أن مجموعة الأقران و الإجهاد وتأثير المشاهير والمادية هي عوامل لها تأثير قوي على سلوك الشراء القهري. كانت مجموعة الأقران أكثر العوامل المؤدية لسلوك الشراء القهري. أيضًا ، أظهرت النتيجة أن جودة الخدمة المدركة كانت قادرة على تعديل العلاقة بين العوامل وسلوك الشراء القهري. يمكن للمسوقين استخدام نتائج هذه الدراسة لتطوير قيمة الخدمة للمستهلكين ، ويمكن لعلم النفس استخدام هذه الدراسة للتخلص من إدمان عملية الشراء بين المتسوقين. يمكن للباحثين الآخرين الاستفادة أيضًا من نموذج التطوير. كان لهذه الدراسة مخطط تصنيف للمشترين القهريين (قهري ، طبيعي وغير قهري) ، على عكس التصنيف ثنائي التفرع في الدراسات السابقة. توفر هذه الدراسة أيضًا أول تقييم لانتشار الشراء القهري في السودان.

الكلمات الرئيسية: سلوك الشراء القهري ، المادية ، الإجهاد ، مجموعة الأقران ، تأثير المشاهير ، جودة الخدمة المدركة.

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LIST OF ABBREVIATIONS

CBB	Compulsive Buying Behavior
CBS	Compulsive Buying Scale
CRM	Customer Relationship Management
FQ	Functional Quality
MO	Marketing Orientation
OP	Organizational Performance
RSQS	Retail Service Quality Scale
SERVQUAL	Service Quality Measurement Tool
SQ	Service Quality
TQ	Technical Quality

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

In recent years the market place has a swiftly changes. Those changes even affected the customer interpret to the buying process. Buying is a routine part of everyday life. However, in specific situations, buying may be unplanned and sudden, initiated on the spot, and associated with a strong urge and feeling of pleasure and excitement (Lejoyeux et al.,2010). Customer is no longer starts to buy by recognition of the need (internal stimuli such as thirst or external stimuli such as advertizing) and in order to find what they feel is the best service/product they may follow peer groups, celebrities fashion, online media or word of mouth for obtaining the information about the service/product.

Nowadays, buying behavior is a way in order to entertain yourselfand feel good. Furthermore, a new buying behavior phenomena's appeared Researchers have long endeavored to understand the development of materialistic values and compulsive buying behavior.

Shopping is no longer an act of merely purchasing goods instead it has become a form of entertainment or a rewarding behavior (Maraz et al., 2015).Compulsive buying behavior has captured much attention from scholars researching marketing psychology (Chan, Zhang, & Wang, 2006; Inglehart& Baker, 2000, T.Islam et al,2017).Compulsive buying behavior (CBB) is defined by repetitive and uncontrollable buying that becomes a primary response to negative feelings (Ridgway et al., 2008; Faber &O'Guinn, 1992). Which drives to many dilemmas such as psychiatric problem, personal, social and financial consequences.

Equivalent of Withdrawal Compulsive buyers consider that they miss important occasions to buy items that will not be again available. Adverse Consequences Compulsive buying regularly results in adverse consequences, including substantial financial debts, legal problems, psychological distress (e.g., depression, feelings of guilt), interpersonal

conflict, and marital conflict. For compulsive buyers, money and possibility to buy could be considered as an equivalent of a drug (Lejoyeux et al., 2010).Sudanese economy witnessed a rapidamendment in the process of retail marketplace recently in the form of an increase in number of shopping mall and supermarkets.therefore it will increase the rate of compulsive buying among customers and consumers. (CBB) is serious growing issue in non-western emerging economies (Unger &Raab, 2015; Horváth&Adigüzel, 2018), this research is iteration to study this phenomenon in Sudan. Compulsive buying has severe harmful personal (stress, depression, anxiety, lower self-esteem, guilt), social (criticism, shame, hiding behavior, family arguments, criminal problems, legal problems) and financial (debts, inability to meet payments) consequences (Black et al., 2012; Saman 2018). In effect, Compulsive buying behavior has captured much attention from scholars researching marketing psychology (Chan, Zhang, & Wang, 2006; Inglehart& Baker, 2000, T.Islam et al, 2017)." Scholars identified significant constructs such as TV advertisements, peer group, and media celebrity endorsement which is responsible for materialistic values and compulsive buying behavior among young adults (Richins, 1995; Sirgy et al., 2016).

Therefore, the researcher is intended to empirically test the framework identifying the relationships among antecedents of CBB and its penalties and perceived service quality.

1.2 STATEMENT OF THE PROBLEM

Compulsive buying was first described in the early 20th century by Emil Kraepplin and Eugen Bleuler. Diagnostic criteria for compulsive or addictive buying were first proposed in 1994 and later refined (Lejoyeux et al.,2010). Compulsive buying behavior has captured much attention from scholars researching marketing psychology (Chan, Zhang, & Wang, 2006; Inglehart& Baker, 2000, T.Islam et al., 2017).

Scholars identified significant constructs such as TV advertisements, peer group, and media celebrity endorsement which is responsible for

materialistic values and compulsive buying behavior among young adults (Richins, 1995; Sirgy et al., 2016).

Most of the research on compulsive buying has addressed this behavior in the adult population and has focused largely on self-identified samples of compulsive buyers (Faber and O'Guinn 1992; O'Guinn and Faber 1989; Scherhorn et al. 1990). Today's young adults have been reared in a unique and radically changing environment; therefore, an investigation of the factors which lead to compulsive buying in this generation is warranted (Winter 1998). In effect, many theories have been proposed to explain the etiology of compulsive or addictive behaviors; however, models focus on family, biological, psychological, or sociological causes (Faber 1992; Faber, O'Guinn, and Kyrch 1987; Hirschman 1992), all likely factors in compulsive buying.

On the other hand, few research studies have investigated the antecedents and incidence of compulsive buying in adolescents and/or young adults (for an exception, see d'Astous, Maltais, and Roberge 1990, Winter 1998). Topics such as (Michel Lejoyeux) compulsive buying, (Nancy Ridgway 2006) New Perspectives on Compulsive Buying: Its Roots, Measurement and Physiology have been researched with regard to sociological, psychological, Biogenetics, Addiction, Novelty Seeking and economical aspects. Studies such as those by (James a. roberts), (T.islam et al.,2017), and(Saman et al.,2018) focused on both antecedents and consequences of compulsive buying putting into consideration moderating role of and public policy implication, materialism and gender.

Using Moderator has been suggested by many authors as statistical technique for analyzing the moderating effect (Baron & Kenny, 1986) in case results are not compatible to each other. To enhance the relationship between antecedents and compulsive buying behavior, we can use perceived service quality as moderator variable, searching for the moderator in the previous studies. As far as the knowledge of the study is concerned, there is very rare studies conducted in the area of compulsive buying antecedents (materialism, stress, self-esteem, negative feeling,

peer-group and celebrities) and consequences (hiding behavior, positive feeling) testing perceived service quality as moderator.

1.3 RESEARCH QUESTIONS

1) Is there any relationship between antecedents and compulsive buying behavior?
2) Does Perceived Service Quality moderate the relationship between antecedents and the buying behavior?
3) What is the level of compulsive buying behavior among Sudanese? What is level of perceived service quality?

1.4 RESEARCH OBJECTIVE

This study aims to:

1) Test the relationship between antecedents and compulsive buying behavior.
2) Investigate the moderating role of perceived service quality between antecedents and compulsive buying behavior.
3) Assess the level of both compulsive buying behavior and perceived Service Quality.

1.5 SIGNIFICANCE OF THE STUDY

Theoretical Significance: making positive contribution to the existing literature by:

1) This study has theoretical contribution, first: most previous studies were conducted in developed countries where buying behavior becomes kind of entertainment, conducting such study in developing country can help to understand the cultural diversities and service implemented in this developing country.
2) Second, this study is seeking to determine antecedents of compulsive buying between Sudanese consumers.
3) Very rare studies have been tested service quality as moderator.
4) This study has many variables and dimensions, this study attempts to link the relationship between the antecedentsand Compulsive Buying Behavior and the dimension of service quality
5) Help future researchers who are willing to conduct study on this topic.
   Practically:

1) Help decision makers to better understand behavior of the compulsive buyer in the retail marketplace.
2) Help to identify which determinants are most likely to drive to compulsive buying among Sudanese.
3) Help to better understand service quality role.

1.6 SCOPE OF THE STUDY

The scope of the study is limited to the retail market places in Sudan, Malls (cosmetic stores, fashion etc.). ALWAHA, AFRAA and CITY PLAZA.

1.7 OPERATIONALIZATION DEFINITION OF KEY TERMS

This section provides details about how key terms are operationally defined

Compulsive buying behavior:(definition aligned recent study) Compulsive buying is attributed to needless, uncontrollable and excessive shopping and this phenomenon is facilitated because of the introduction of shopping malls in emerging economies (Saman 2018., Achtziger et al., 2015; Horváth et al., 2013).

Perceived Service Quality: is a result of the comparison of perceptions about service delivery process and actual outcome of service (Grönroos, 1984; Lovelock and Wirtz, 2011).

1.8 ORGANIZATION OF THE STUDY

This project paper is organized into five chapters:

Chapter one is the introduction chapter and background of the study, statement of the problem, research questions, research objectives and significance of the study. Chapter two explains concepts and relation between conceptual constructs and related studies.

Chapter three explains the theoretical framework, hypotheses development, research methodology, instruments and data collection, pilot and final tests were presented. In chapter four results presented and the discussion of the study. In chapter five presents the summary of major findings, conclusion and forwarded.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The purpose of this chapter is review to literature that had been developed by authors and researchers in the themes outlined in the study objectives. It discusses Perceived service quality and its dimension, several perspectives of compulsive buying behavior, its antecedents and dimensions. Relations between them and the related empirical studies.

2.2 The Nature of Compulsive Buying Behavior

The technical term for compulsive buying disorder is oni-omania, derived from the Greek words onios meaning "for sale" and mania meaning "insanity." Therefore, it is very difficult to stop and ultimately results in harmful consequences. This behavior possesses have greater knowledge of store prices, gain greater transaction value from price promotions, possess higher price consciousness and sale proneness, have greater on-line shopping tendencies, and exhibit higher credit card abuse than non-compulsive buyers.

2.3 Several approaches of Compulsive Buying Behavior

I. **Theoretical Framework Approach**
Escape theory explains why people engage in a self-destructive behavior, such as compulsive buying maintains that people with extremely high self-expectations ultimately face failure and painful self-awareness. When these feelings become too extreme, they seek to block out these feelings by becoming completely absorbed in an immediate, concrete task (buying)., without considering long-range consequences.

II. **The Clinical Experience as a Psychiatrist and Psychologist Approach:**
Compulsive buyers experience repetitive, irresistible, and overpowering urges to purchase goods, perhaps similar to the attitude of substance addicts towards their substance of choice. These goods are frequently useless and/or unused items. Availability of the Internet retail environment may promote compulsive buying because it permits avoidance of direct, face-to-face social contact, allows the

transactions to be kept private (e.g., hidden from family), and provides continuous electronic feedback about product offerings and prices. Compulsive buyers strongly focus on the buying process itself, i.e., is more interested in the acquisition than in possession or use of the item purchased.

III. **The Neurobiological Approach:**

The scientist Knutson studied event related Functional Magnetic Resonance Imaging (FMRI) suggesting that distinct circuits anticipate gain and loss. This evidence seems to suggest that compulsive buying is similar in its neurocircuitry to other behavioral addictions such as gambling or internet addiction and, therefore, should be regarded as such. Compulsive buying, similar to other behavioral addictions, may be maintained by the brain's reward system which can be predictive of purchasing behaviors, but once negatively reinforced it may result in the return of negative affective states. This point, however, has not been confirmed by specific experiments on neurocircuitry.

IV. **Approaching the Biogenetics, Addiction and Novelty aspect:**

Comings and Blum (2000) noted that the two critical areas for understanding both addictive and stimulation seeking behaviors lie in the dopaminergic and opiodergic pathways of the brain "both of which are critical for {human} survival, since they provide the pleasure drives for eating, love, and reproduction" ("Reward Deficiency Syndrome").Experientially, persons carrying this version of the gene will have enhanced feelings of pleasure, stimulation and euphoria when consuming substances, such as alcohol, nicotine, heroin and cocaine, which are the result of higher blood levels of beta endorphin and higher stimulation of neural dopamine receptors. This creates a learned response of reinforcement and motivation to seek out additional stimulation. persons with higher than average reward seeking behavior, which may lead to dysfunctional consequences, such as addiction, **compulsive purchasing**, and inattention in school (ADHD) due to genetic characteristics, represent an 'extreme' or 'enhanced' version of normal, human

behavior. They are not radically different than most people; they just want more than most people—more stimulation, more excitement, more novelty, more pleasure, more activity and so forth.

V. **Approaching the Scientists phenomena description**

Compulsive buying has been described as "chronic, repetitive purchasing that becomes a primary response to negative events or feelings" (O'Guinn and Faber 1989, 155). Most of the research on compulsive buying has addressed this behavior in the adult population and has focused largely on self-identified samples of compulsive buyers (Faber and O'Guinn 1992; O'Guinn and Faber 1989; Scherhorn et al. 1990).

- (Black et al., 2012) Customer and consume buying has become a habit and this habit, when abused by a small but considerable segment of individuals, may cause a detrimental psychiatric dilemma known as compulsive buying behavior.

-Gallagher, Watt, Weaver, and Murphy (2017) note that although shopping has been regarded as a necessity and harmless, compulsive buying may lead to many undesirable consequences, including severe personal debt and damaged family relationships.

Only prevalent in developed countries where there is a system of credit and a consumer culture.

-(Ridgway et al., 2008; Faber &O'Guinn, 1992). Compulsive buying behavior is defined by repetitive and uncontrollable buying that becomes a primary response to negative feelings Compulsive Buying Behavior has severe harmful personal, social and financial consequences for an individual (Black et al., 2012). In a recent study, He et al. (2018) found a positive association of depression with Compulsive Buying Behavior in China.

- Traditionally have used the term "compulsive buying" to describe the dysfunctional, maladaptive, or abnormal consumptive behaviors exhibited by a small number of pathologically ill consumers who are unable to control the overpowering impulse or urge to buy. As a matter of fact, compulsive buying and other dysfunctional consumption behaviors have

attracted substantial attention of consumer and other researchers in recent years in effect, Achtziger, Hubert, Kenning, Raab, and Reisch (2015) show that lower levels of self-control are associated with higher levels of compulsive buying. Other research shows that hedonic motivation is related to compulsive buying (Kukar-Kinney et al., 2016). Also Unilever's Dove line has used real people who are average in appearance for their advertisements to correspond to how consumers actually see themselves (i.e. actual self-concept). On the other hand, L'Oreal has used celebrities (e.g. Beyoncé) in its communications to correspond to how consumers would like to see themselves (i.e. ideal self-concept).

2.4 The Difference between Impulsive and Compulsive Buying

Those two buying behaviors frequently discussed in tandem. Consumer researchers have long considered impulse buying a distinct aspect of American consumers' lifestyles and shopping habits (Rook, 1987). As described earlier, impulses occur spontaneously and without cognition driving consumers to purchase in ways that conflict with self-interests Rook (1987) asserts: **"Impulse buying** occurs when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately. Impulse buying is a much more wide spread phenomenon than compulsive buying, with many consumers exhibit. The impulse to buy is hedonically complex and may stimulate emotional conflict. Impulsive buying describes the tendency to make unplanned and unreflective purchases (Jones et al., 2003). Thus, impulse buyers and compulsive buyers lie on different ends of a spectrum, where compulsive buying represents an extreme urge to buy. The topic of compulsive buying behavior has received considerable attention from researchers (Kwak, Zinkhan, & Dominick, 2002; Roberts, Manolis, & Tanner, 2003). Edwards and Potter (1992) defined compulsive buying as "a chronic abnormal form of shopping and spending characterized by the extreme, uncontrollable, and repetitive urge to buy, disregarding the consequences." Research has described compulsive buying behavior as a mental state in which an isolated individual who lacks impulse control and has low self-esteem combined with anxiety and materialism seeks excitement (Desarbo &

Edwards, 1996; Faber &O'guinn, 1992; O'Guinn& Faber, 1989; Valence, d'Astous & Fortier, 1988).

2.5.1 Levels of compulsive buying behavior:

Edwards (1993) (normal, recreational, borderline, compulsive and addictive). These levels, listed from lowest to highest level of compulsive buying severity, are:

1. Non-compulsive (normal): exclusively make planned purchases of items when they are needed

2. Recreational: occasionally make unplanned, impulsive purchases, often in an effort to improve mood **3. Borderline:** like recreational buyers, occasionally purchase items to improve mood; unlike recreational buyers, may feel guilty after purchasing items that they do not need

4. Compulsive: frequently purchase items to relieve stress or anxiety, often feel guilty after purchasing items that they do not need, and often suffer negative emotional and economic consequences as a result of their purchasing behavior

5. Addicted: experience a continuous, powerful urge to purchase items that is so strong that they often neglect other obligations and postpone or cancel other activities to act on this urge

The development of classification scheme that includes varying categories of compulsive buyers, unlike previous dichotomous classification of compulsive buyers into compulsive or non-compulsive, is a major contribution in the literature that adds important insights in the theory of CBB. This will add to and refine current understanding of compulsive buying as an addictive behavior and the incidence of compulsive buying in the shopping malls. Most compulsive buyers exhibit preoccupation in their repetitive shopping, as in obsessive behavior (e.g. Faber &O'guinn, 1992).

2.5.2 Characteristics of compulsive buying disorder:

It appears to share certain characteristics common in addictive disorders (Black, 2012).

a) Impulse purchase. Compulsive buyers often purchase things on impulse that they can do without. And they often try to conceal their shopping habits. Spending without adequate reflection can result in having many unopened items in their closets as they continue the cycle of buying.
Compulsive buyers may develop into hoarders later in life after their products have accumulated with time (Mueller, 2007).

b) Buyers high. Compulsive shoppers experience a rush of excitement when they buy. This rush of excitement is often experienced when they see a desirable item and consider buying it. And this excitement can become addictive.

c) Shopping to dampen unpleasant emotions. Compulsive shopping is an attempt to fill an emotional void, like loneliness, lack of control, or lack of self-esteem. Often, a negative mood, such as an argument or frustration triggers an urge to shop.

d) Guilt and remorse. Purchases are followed by feelings of remorse. They feel guilty and irresponsible for purchases that they perceive as indulges. The result may be a vicious cycle, that is, negative feeling fuel another "fix," purchasing something else.

e) The pain of paying. Paying with cash is more painful than paying with credit cards (Ariely and Kreisler, 2017). The main psychological force of credit cards is that they separate the pleasure of buying from the pain of paying. Credit cards seduce us into thinking about the positive aspects of a purchase.
McElroy et al.'s Diagnostic Criteria for Compulsive Buying as:
1. Frequent preoccupations with buying or impulses to buy that are experienced as irresistible, intrusive, and/or senseless.
2. Frequent buying of more than can be afforded, frequent buying of items that are not needed, or shopping for longer periods of time than intended.
3. The buying preoccupations, impulses, or behaviors cause marked distress, are time-consuming, significantly interfere with social or

occupational functioning, or result in financial problems (e.g., indebtedness or bankruptcy).

4. The excessive buying or shopping behavior does not occur exclusively during periods of hypomania or mania.

2.6 Consequences of Compulsive Buying Behavior

Compulsive buying has a lot of harmful personal (stress, depression, anxiety, lower self-esteem, guilt), social (criticism, shame, hiding behavior, family arguments, criminal problems, legal problems) and financial (debts, inability to meet payments) consequences (Black et al., 2012). Recent global economic crisis is partly attributed to compulsive buying (Sharma et al., 2014; Gardarsdottir & Dittmar, 2012; Schneider & Kirchgassner, 2009). Compulsive Buying Behavior severely affects the well-being of not only the affected individual but also society as a whole (He et al., 2018).

2.7 Dimension of Compulsive Buyers

There are four basic dimensions:

   a) Tendency to spend
   b) Feeling urge to buy or shop
   c) Post-purchase guilt
   d) Family environment

2.8 Compulsive Buying Behavior Factors according to previous studies:

Compulsive buying is shown to have a positive correlation with three facets of impulsivity: urgency, lack of perseverance and lack of premeditation (Billieux, Rochat, Rebetez, & Van der Linden, 2008). Dittmar (2005b) reports three factors that drive compulsive buying: Materialisticvalue, self-discrepancies and ideal-self buying motivation.

2.1 Table shows related previous studies findings:

Author	Date issued	Determinants of compulsive buying behavior
Saman Attiq	2018	Depression Anxiety Negative Feelings Stress Self Esteem Materialism
Arnold Japutra, YukselEki ncib, Lyndon Simkinc	2017	Actual self-congruence Ideal self-congruence Brand attachment actual self-congruence directly affects impulsive buying, but ideal self-congruence does not. This indicates that brand attachment partially mediates the relationship between actual self-congruence and impulsive buying and fully mediates the relationship between ideal self-congruence and impulsive buying. Interestingly, the direct effect of actual self-congruence on impulsive buying is negative
Tahir Islam, Jiuchang WeiaZarya Sheikh Zahid Hameed, Rauf I. Azamc	2017	Materialism Peer group Media celebrity endorsement TV advertisement materialistic young adults are more likely to be involved in compulsive buying In effect, materialism mediated the relationship between certain sociological factors (i.e., group, media Celebrity endorsement, and TV advertisement) and compulsive buying. The study highlights the importance of understanding young adults' materialistic attitudes and consumption decisions and provides key knowledge for researchers, policymakers, and managers of leading brands.
AadelA. Darrata,, Mahmoud. Darrat, Douglas Amyx	2016	Fantasizing, Anxiety Addiction Impulse buying increases anxiety in consumers that is in turn, linked to compulsive buying. Notably, consumer escapism appears to deter the conversion of anxiety into compulsive buying
S.Todd Weaver, GeorgeP.M oschis, Teresa Davis	2011	Materialism three theoretical perspectives (the stress, normative, and human capital perspectives Life course model one's experiences and circumstances in adolescence are related to both materialism and compulsive buying in early adulthood, but the processes involved in their development differ

Arnold Japutraa, Yuksel Ekincib , Lyndon Simkinc   2017

1 Actual self-congruence: Actual self-congruence refers to the degree of fit between the brands' personality to foster consumers' conception of who they really are, whereas ideal self-congruence refers to the degree of fit between the brands' personality to foster consumers' aspiration of who they would like to be in the future.

2 Ideal self-congruence: The actual and ideal self-concept serves as the basis of the self-congruence theory. Self-congruence refers to the fit between consumers' self-concept and brand personality (Aaker, 1999; Sirgy, 1982).

3 Brand attachments: covers the emotional bonding between the consumer and the brand, which includes three basic feelings: passion, affection and connection (Thomson et al., 2005).

Brand attachment refers to the strength of the emotional link that connects the consumer and the brand, involving feelings toward the brand (Malär et al., 2011). Extant research displays that being attached to brands increases the tendency to purchase the brands' products, which may end up in compulsive buying (e.g. Horváth & Birgelen, 2015; Kaufmann, Petrovici, GonçalvesFilho, & Ayres, 2016). Thus, brand attachment may mediate the relationship between self-congruence (i.e. actual and ideal) and compulsive buying behavior (i.e. impulsive and obsessive-compulsive buying).

4 Impulsive buying: refers to an unplanned purchase that is accompanied by rapid decision-making and subjective bias in favor of immediate possession, where consumers buy spontaneously, unreflectively, immediately and kinetically (Kacen & Lee, 2002; Rook & Fisher, 1995)

5 Obsessive-compulsive buying: refers to an uncontrolled urge that is accompanied by preoccupation in buying and repetitive buying in order to reduce anxiety (Ridgway et al., 2008).

Tahir Islam, Jiuchang Weia, Zaryab Sheikhb, Zahid Hameeda, Rauf I. Azamc   2017

1 Materialism: According to Belk (1988), materialism is a significant utilization pattern, as young people frequently use material possessions to convey their extended selves. Belk (1984) explains materialism as a stage in which a person thinks certain material goods are mandatory for enjoyment in life. Richins and Dawson (1992) conceptualize materialism as personal values and a choice between tangible and intangible life goals. Materialism can be defined as "the extent to which individuals attempt to engage in the construction and maintenance of the self through the acquisition and use of products, services, and experience" (Shrum et al., 2013).

Compulsive behavior: Edwards and Potter (1992) defined compulsive buying as "a chronic abnormal form of shopping and spending characterized by the extreme, uncontrollable, and repetitive urge to buy, disregarding the consequences." Research has described compulsive buying behavior as a mental state in which an isolated individual who lacks impulse control and T. Islam et al. Journal of Adolescence 61 (2017) 117–130 118 has low self-esteem combined with anxiety and materialism seeks excitement (Desarbo& Edwards, 1996; Faber &O'guinn, 1992; O'Guinn& Faber, 1989; Valence, d'Astous, & Fortier, 1988). According to Dittmar and Drury (2000), compulsive buyers believe that expensive material is essential for happiness and success much more than normal buyers believe this. Researchers concluded that high levels of compulsive buying behavior might be developed from materialism, peer communication, television advertisements, and media exposure (Halliwell, Dittmar, & Howe, 2005).

2 Peer group: peer acceptance is seen as the best way to gain the confidence and close friendship of one's peers in a particular community. Comprehensive social assessment theory indicates that people evaluate themselves against others by means of their personal material possessions

to establish their social standing (Motl et al., 2001, 2002). High peer group pressure increases materialism among young adults (Benmoyal Bouzaglo & Moschis, 2010).

3 Media celebrity endorsement :T. Islam et al. Journal of Adolescence 61 (2017) 117–130 119Consumers often admire celebrities and trust them to be a credible source of information (Atkin& Block, 1983), which gives them power as product spokespersons, so using celebrities in advertising attracts prospective consumers and increases materialism (McCracken, 1989; Petty, Cacioppo, & Schumann, 1983)

4 TV advertisements: TV advertisement seems to have the propensity to influence the development of materialistic behavior among young adults in Pakistan. TV affects people's perception, so those who are watching television very frequently are more materialistic.

Aadel A. Darrata, Mahmoud A. Darrat , Douglas Amyx   2016

1 (Escapism) Fantasizing: Escapism allows compulsive buyers to temporarily elude negative emotions through fantasies or vivid imaginations of personal success and social acceptance while engaging in the behavior. Consumers that fantasize alternative outcomes to stressful events may feel relief by distancing themselves from reality. However, when individuals "escape" stressful encounters to avoid anxiety, they are essentially losing touch with reality and may be more susceptible to compulsive behaviors. Also, as people who "escape" may be in a more positive mood or frame of mind because they are moving away from their anxieties, they may also be more likely to ritualize their escape through compulsive buying. Metaa nalytic evidence suggests that positive mood is positively related to compulsive consumption in adults (Cardi et al., 2015)

2 Anxiety: Consumer anxiety relates positively to consumer escapism. H4. Escapism relates positively to compulsive buying.

3 Addiction: addictions including alcoholism, substance abuse, gambling, and other compulsive disorders. That is primarily driven by negative affect and can then be classified as a compulsive buyer.

S. Todd Weaver, George P. Moschis, Teresa Davis 2011

1 Stress A central idea of the life course approach is that all life events can create psychological disequilibrium, which in turn causes stress. Eliminating the stress and restoring equilibrium requires a behavioral or cognitive readjustment by the individual aimed at establishing a new balance (Gerveld and Dykstra, 1993). Throughout life, one builds a unique set of strategies to cope with disequilibria and the stress caused by life events (Vaillant, 1977). Thoughts and behaviors that help reduce acute or chronic stress reflect an attempt to cope and may initially require effort, but over time they may be reinforced and become conditioned responses that result in the development of attitudinal and behavioral orientations.

2 Normative The normative perspective posits that one's life course may consist of taking up, occupying, and leaving various roles—for example, that of child, student, employee, and spouse. The basic premise of the normative perspective is that ''there are social norms governing the order, continuity, and timing of role transitions and that deviation from the prescribed patterns result in the application of sanctions'' (Abeles et al., 1980, p. 319)

3 Human capital Human capital refers to the knowledge, skills, and other resources people acquire that ''influence future income and consumption'' (Frytak et al., 2003, p. 627). The acquisition of human capital is influenced by a variety of factors, ranging from distal, macro-level structures (e.g., class, culture) to more proximal, micro-level factors (e.g., family, work). Micro-level factors are nested within macro-level structures and constitute the vehicles for human development

4 Materialism has been defined as ''the importance a person places on possessions and their acquisition as a necessary or desirable form of conduct to reach desired end states, including happiness'' (Richins and Dawson, 1992, p. 307). Materialists are typically unhappier and more

dissatisfied with life than non-materialists (Ryan and Dziurawiec, 2001; Belk, 1985; Chang and Arkin, 2002), and they also experience more physical and psychological ailments (Kasser, 2002)

Saman Attiq   2018

1 Depression: Depression is a common and serious medical illness that negatively affects how you feel, think and how you act. Depression causes feelings of sadness and a loss of interest in activities once enjoyed. It can lead to a variety of emotional and physical problems such as compulsive disorders. Numerous researches have studied the links between depression and compulsive buying behavior. In a recent study, He et al. (2018) found a positive association of depression with CBB in China

2 Anxiety: Anxiety is an internal state of distress and agitation. Anxiety disorders include panic disorder, generalized anxiety disorder, and obsessive-compulsive disorder, social anxiety disorder, and specific phobias. These anxiety disorders usually coexist with other psychiatric states mainly major depressive disorder (Bittner et al., 2004). Anxiety is one of the most studied determinants of compulsive buying behavior (Faber & Christenson, 1996; Davenport et al., 2012; Williams & Grisham, 2012; Otero-López & Villardefrancos, 2013). Compulsive buying is a quick remedy for anxiety because it pushes the consumer to reduce tension by provoking a spontaneous action (Robert & Jones, 2001). Weinstein et al. (2015) found that trait anxiety and compulsive buying behavior had a positive association.

3 Negative Feelings

4 Stress: Stress is defined as any uncomfortable emotional experience accompanied by predictable biochemical, physiological and behavioral changes (Baum, 1990). In their study, Valence et al. (1988) proposed that compulsive buyers engage in this behavior to reduce their stress. Stress acts as a trigger where compulsive buyers get an emotional need to reduce their tension by buying things.

5 Self-Esteem: Self-esteem is defined by as an individual set of thoughts and feelings about his or her worth and importance (Rosenberg, 1965; Orth et al., 2012). It refers to how a person perceives himself and his worth. One of the psychological factors that induce compulsive buying is low self-esteem (Scherhorn et al., 1990). Compulsive buyers try to enhance or uplift their self-esteem through buying items and if these attempts to enhance self-esteem are successful, their compulsive buying behavior becomes reinforced (Hanley, 1992). Prior literature on self-esteem and compulsive buying behavior indicates that compulsive buyers use purchasing of goods to move towards an ideal self and as a way of self-expression (Kukar- Kinney et al., 2012).

6 Materialism: Materialism is defined as the convictions of an individual that worldly possessions are the principal aim of life and a crucial course to identity, joy and prosperity (Richins, 2004). Materialists make their possessions the focal point of their lives and consider these possessions and the acquisition of new possessions indispensable to their well-being.

2.9 Justification for chosen those antecedents of Compulsive Buying in this chapter

Antecedents of CBB

- ❑ **Materialism:** defined as ''the importance a person places on possessions and their acquisition as a necessary or desirable form of conduct to reach desired end states, including happiness'' (Richins and Dawson, 1992, p. 307).

  As a matter of fact, most research on the development of materialistic values has employed one of two theoretical perspectives: the socialization perspective and the psychological perspective (Kasser et al., 2004).

  The socialization perspective emphasizes socialization agents—especially family, peers, and mass media—as sources of materialistic values. Sudanese society pay great attention to family and brotherhood values, further more material possessions, the fixed and

movable assets for individuals and families are considered as a marker of success, achievement and source of browed in our community.

The psychological perspective posits that one's circumstances create emotional states (e.g., stress, self-esteem) that either impede or facilitate the development of materialistic values.

Empirical evidence suggests that materialism is related positively compulsive buying as consumers extract happiness out of gaining possession of material goods (Harnish et al., 2018; He et al., 2018)).

❑ **Negative Feeling**

Compulsive buying manners is a modern technique to Escape Negative thoughts although factors promoting positive mood state (e.g., nice scents, pretty colors, or pleasant music) may draw an impulse purchase, compulsive buying more frequently occurs in the context of negative effects. Compulsive buyers usually engaged in compulsive buying behavior when they experienced negative emotions such as having a bad day or feeling depressed (Ridgway et al., 2008).. Compulsive buying behavior usually occurs in the context of negative feelings (Billieux et al., 2008). Other researches also support the notion that compulsive buyers use their buying behavior to enhance their negative mood (He et al., 2018; Harnish et al., 2018).

Euphoria or relief from negative emotions is the most common psychological determinant of compulsive buying.

❑ **Stress**

Stress is defined as any uncomfortable emotional experience accompanied by predictable biochemical, physiological and behavioral changes (Baum, 1990). In their study, Valence et al. (1988) proposed that compulsive buyers engage in this behavior to

reduce their stress. Recently, in China, He et al. (2018) found a positive association between anxiety and compulsive buying.

❑ **Self-esteem**

It refers to how a person perceives himself and his worth, buyers use purchasing of goods to move towards an ideal self and as a way of self-expression (Kukar- Kinney et al., 2012)

Numerous studies have proved that family disruptions are stressful to children and impair their self-esteem (e.g., Hill et al., 2001), and low self-esteem is a strong predictor of compulsive buying. In a recent study; Compulsive buying is associated with lower levels of self-esteem (He et al., 2018; Yurchisin & Johnson, 2004, Moon et al., 2015 a)

❑ **Celebrates**

Celebrity worship is a global phenomenon among adolescents, and young consumers (Yue& Cheung, 2000) and celebrity admiration is common in communities of youth around the world. In fact, a recent estimate indicates that approximately 20 percent of all advertisements worldwide use well-known personalities as spokespersons (Shimp& Andrews, 2013).

Thus, will convey the consumer to buy immediately. consumer tend to use brands that are endorsed by film actors and famous sports figures (Chan & Prendergast, 2007)

Sudanese ladies are deeply affected by famous social media female celebrities, as well Sudanese males tends use brands that are endorsed by film actors and famous sports figures or singers in order to show their like and impress with national and international celebrities

❑ **Peer Group (Peer pressure)**

Peer pressure is a strong influence among young adults. d'Astous et al. (1990) found that friends play a significant role in adolescents'

consumption experiences. Compulsive buyers are typically guided by responses of others or by other external points of reference (Krueger 1988). Reliance on others for feelings of self-worth and acceptance leads compulsive buyers to depend on appearance or possessions to positively influence others. It can be observed in Sudanese universities that the new comers student haircut, clothes, touch screen mobile are affected by old comes students.

❑ **Positive Feeling**

Mc Elroy et al. (4) noted that 70% of patients presenting with compulsive buying described buying as "a high," "a buzz," "a rush," the positive feeling (e.g., pleasure, excitement) experienced while buying.In the light of case study carried out in USA 2003,followedby several recent studies, They found that the participants were more likely to buy when experiencing negative emotions such as anger, loneliness, frustration, hurt feelings, or irritability. Furthermore, during the buying episodes, the participants reported experiencing more positive emotion and less negative emotion.

In effect, the positive feeling is short lived and fades in the time immediately after the buying incident.

❑ **Hiding Behavior**

The primary focus of compulsive buyers is the buying process rather than the items bought and because of lack of interest in purchased items, they either hide them or give them away as gifts (Lejoyeux, 2010). Compulsive buyers start feeling alienated, socially isolated and rejected. Thus, to keep away from conflicts and argument with friends and family, compulsive buyers engage in hiding behavior (Weinstein et al., 2016). In a recent study in another emerging economy (China), consumers tend to hide their compulsive purchasing from others (He et al., 2018).

2.10 Perceived Service Quality

(Emel Kursunluoglu Yarimoglu 2014) mentioned that; Perceived service quality is a result of the comparison of perceptions about service delivery process and actual outcome of service (Grönroos, 1984; Lovelock and Wirtz, 2011). In simple words Jiang and Wang, (2006) defined it as the consumer's evaluation of the service performance received and how it compared with their expectation. Another aspect Jiang and Wang, (2006) pointed out that, evaluations are not based on service attributes; rather these depend on a customer's feelings or memory. So, customers measure service quality in terms of how much pleasure they have received from a service. SQ is essentially important for firms or organizations, especially service organizations, to create competitive advantage (C. A. Gronroos, 1988), Past researchers defined SQ as existing to fulfill customer's needs or expectations (Lewis & Mitchell, 1990) and to satisfy their needs (Juran, 1999). Cronin and Taylor (1994) defined SQ as a form of attitude formed in long term throughout the overall evaluation of a performance (Hoffman & Bateson, 2001).C. A. Gronroos (1990) defined SQ as a series of activities of intangible nature that take place in interactions between physical resources (customer and service employees) or goods or systems of the service provider. In addition, the SQ model as proposed by C. A. Gronroos (1984) consists of two major dimensions that are technical quality (TQ) and functional quality (FQ). To date, SQ has been commonly used to measure customer satisfaction by researchers (Cronin & Taylor, 1992; Greenberg, 1990; Konovsky, 2000).

Technical quality is concerned with what is delivered (outcome), What the customer receives as a result of interactions with the service firm (e.g. a meal in a restaurant, a bed in a hotel). C. A. Gronroos (1984) defined TQ as the quality customers actually receive (result dimension) and mostly hidden from the customers where they have little awareness of it (Bopp, 1990). C. A. Gronroos (2007) explained TQ as what is provided by the service.

Functional quality deals with the process of service delivery (how it is delivered) and the image quality which is identified as corporate image of

company resulting from both technical and functional qualities of service components, How the customer receives the service; the expressive nature of the service delivery (e.g. courtesy, attentiveness, promptness)

C. A. Gronroos (1984) defined FQ as the way services are delivered (how) to the customer (process dimension) and "how" the product or service functions. In a recent publication by C. A. Gronroos (2007), FQ is defined as the characteristics of service provider and its employees, and how the customer perceives the service process. The related characteristics include professionalism and skills, attitudes and behavior, accessibility and flexibility, and reliability and trustworthiness (C. A. Gronroos, 2007).(EmelKursunluogluYarimoglu 2014); Sasser et al. (1978) defined the factors that raise the level of service quality such as security, consistency, attitude, completeness, condition, availability, and training of service providers. Besides this, physical quality, interactive quality, and corporate quality also affected the service quality level (Lehtinen and Lehtinen, 1982). Grönroos (1984) developed the first service quality model and measured perceived service quality based on the test of qualitative methods. Technical quality, functional quality and corporate image.Parasuraman et al., 1985 developed ten determinants for service quality.

Many SQ models appeared but they focused on the qualitative research more than quantitative research. Parasuraman et al. (1988) developed SERVQUAL which is an advanced model for measuring service quality. In SERVQUAL model, there are 5 dimensions and 22 items presented in seven-point Likert scale.

The gap between perceived performance and expectations can be taken as a measure of perceived service quality. The gap between perceived and expected quality can be well measured by SERVQUAL (Hamer, 2006). Hence,

Perceived Service Quality = Service Perception – Service Expectation

SERVQUAL is a multi-dimensional research instrument, designed to capture consumer expectations and perceptions of a service.

There are five dimensions or constructs of service quality which identified for applicability in service-providing organizations in general. These dimensions are tangibles, responsiveness, assurance, reliability and empathy (Parasuraman et al, 1988).

2.11 Benefits of Service Quality:

1.   Retaining Customers – This means "repeat business."

2.   Referrals – Satisfied customers are happy to generate positive word-of-mouth. Which is one factor that drives to compulsive buying?

3.   Avoidance of "Price" Competition –Differentiation is a strategy upon which to effectively compete.   Price strategy is another way to compete, however this may not always be possible or desirable. Attaining service quality allows competition based on a differentiation strategy.

4.   Retention of Good Employees – Employees likes to work for a "quality" organization.

5.   Reduction of Costs – When quality is achieved, costs of correcting problems (after they have occurred) is reduced.   Since a focus on quality stresses preventative maintenance, then these costs are reduced.

2.12 Service Quality as a Moderator

As a matter of fact, SQ is multi dimensional moderator but recent studies tested it as a uni-dimensional. Therefore, this study will test SQ as uni-dimensional moderator as well.
Chee-Hua Chin, May-Chiun Lo, T. Ramayah (2013), SQ was found to have moderated the relationship between MO and performance of the hotels in Malaysia

SQ exists to fill in the gap between customers' expectations and their perception of the service providers' performance that further creates differentiation and competitive advantage, which enhance MO practices and ultimately lead to improvements in the firm's performance. On another note, SQ appeared to be another critical measure of OP especially in service organizations (Voon, 2005). The influence of SQ to create competitive advantage for organizations has been validated by various studies (e.g., Hojati, Shahin, & Shirouyehzad, 2012; Gounaris,

Stathakopoulos, & Athanassopoulos, 2003) and generally bring effect on customer satisfaction as well (Arasli, Katircioglu, & Mehtap-Smadi, 2005; Zeithaml & Bitner, 2003) and subsequently better business performance (Kersten& Koch, 2010). SQ was also found to have significant impact on Malaysian universities' performance from the perspective of international students (Shekarchizadeh, Rasli, & Tat, 2011). In realizing the importance of OP, firms' pursued to enhance their performance to obtain differentiation in the market (Miguel, Silva, Chiosini, &Schutzer, 2009) through MO practices (Rodrigues &Pinho, 2010) and SQ concentration (Lasser, Manolis, & Winsor, 2000). In addition, better SQ provided by organizations would result in better customer satisfaction and customers' loyalty, and further resulted in increased customers' retention (Levesque & McDougall, 1996). Hence, MO and SQ are posited to influence OP, but those studies did not look at the link between MO, SQ, and OP. Thus, this paper tries to fill that gap by conceptualizing SQ as a moderator in the relationship between MO and OP. According to Peccei and Rosenthal (1997) and Worsfold (1999), there has been lack of attention paid to commitment to service quality by employees to fulfill the needs to non-stop improvement in meeting customer's satisfaction. In fact, it is a matter of great importance for organizations to instill high level of commitment to service quality in employees (Asgari, 2014). Irfan & Ijaz (2011)

(Lee SangMookJin, N. HLeeHyuckGi 2014) demonstrated results indicated that three elements - service quality, water park image, and food quality - have significant interaction on the relationship between perceived value and attitudinal/behavioral loyalty

(Yaser Salman Alsharari, Fares Mukhelif Al-Rwaily, AbdalkareemAlsharari 2017) International Journal of Academic Research in Business and Social Sciences 2017, moderating role of commitment to service quality effects on the relationship between CRM and organizational performance were found significant. This finding helps policy maker and strategist of Kingdom of Saudi Arabia to give priority and standing towards commitment to service quality, which is enhancing the organizational performance of staff of public hospital in KSA. The constructs employed here were found in many previous studies, showing

positive, significant effect on the overall performance of service and product-based organizations around the world (SantosVijande & Alvarez-Gonzalez, 2007). This leads towards the understanding that commitment to service quality was considered important in the service-related industries. Furthermore, this ultimately effects on the performance of organization in services sector.

2.13 Justification for Selecting the Perceived Service Quality asa Moderator

It is evident from the previous studies that commitment to service quality is indispensable to ensure delivery of exceptional service quality (Babakus, Yavas, Karatepe, & Avci, 2003; Hartline, Maxham, & McKee, 2000; Elmadag, Ellinger, & Franke, 2008; Clark & Hartline, 2009). SQ has direct influence on customer buying decision and satisfaction.

CHAPTER THREE

THEORETICAL FRAMEWORK AND RESEARCH METHODOLOGY

3.1 Introduction

This chapter contains details about variables used to develop the theoretical framework, hypotheses, research methodology, population and sample drawn for the study, instrument, data collection, pilot and final test, and procedures for analysis and presentation

3.2 Theoretical Framework

This research makes contributions to the existing literature. First, this study extends a theoretical model by testing and validating the predictor's responsible determinant for CBB among buyers.

3.2.1 Escape theory explains why people engage in a self-destructive behavior, such as compulsive buying maintains that people with extremely high self-expectations ultimately face failure and painful self-awareness. When these feelings become too extreme, they seek to block out these feelings by becoming completely absorbed in an immediate, concrete task (buying)., without considering long-range consequences. As a matter of fact, this study investigates the antecedents of CBB and examines the mediating role of perceived service quality. The theoretical framework was developed according to literature and theories available regarding each construct. The antecedents of compulsive buying are the **independent variables** (Materialism, Negative Feeling, Stress, Self-esteem, Celebrates, Peer Group**)**. **The dependent variables** are (Compulsive Buying, Positive Feeling, Hiding Behavior), Moderating role of perceived service quality

Figure 3.1 illustrates the theoretical framework proposed for the study
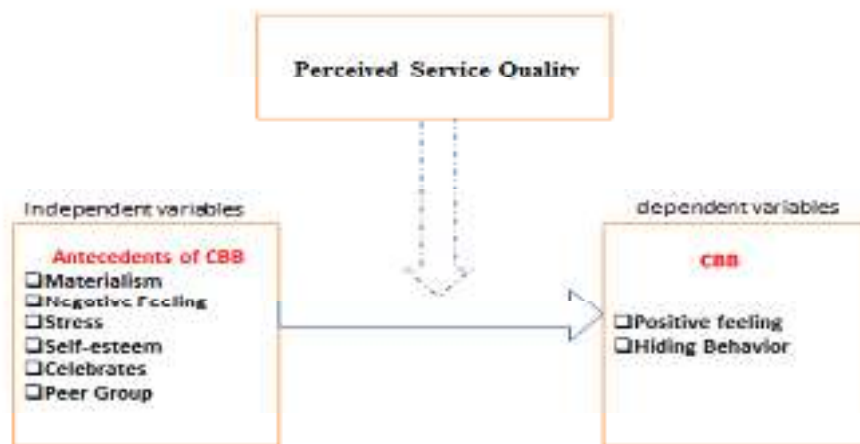
3.3 Development of Hypotheses

According to the provided literature in chapter two and previous studies findings mentioned in relation to the constructs under the study (Two Main) hypotheses were developed following the flow illustrated in the framework section to examine the hypotheses within (SUDAN) circumstances in Malls (cosmetics shops and hypermarket).

Same as Saman Attiq (2018), investigated the relationship of compulsive buying with its antecedents and consequences and estimates the prevalence of compulsive buying behavior among shopping mall visitors of Pakistan. Stress and self-esteem were major triggers for compulsive buyers and the consumers who purchase compulsively feel an emotional lift right after shopping. Tahir islam (2017) in Pakistan, examined Determinants of compulsive buying behavior among young adults, the mediating role of materialism the results indicated that peer group pressure is helping to arouse the materialistic values and compulsive buying behavior among young adults. Some researchers tested SQ as a moderator such as Chee-Hua Chin, May-Chiun Lo, T. Ramayah (2013); SQ was found to have moderated the relationship between MO and performance of the hotels in Malaysia. (Yaser Salman Alsharari, Fares Mukhelif Al-Rwaily,

Abdalkareem Alsharari 2017) found that the moderating role of commitment to service quality effects on the relationship between CRM and organizational performance were found significant. This finding helps policy maker and strategist of Kingdom of KSA to give priority and standing towards commitment to SQ.

H1:the correlation between antecedents and the compulsive buying behavior

1. H1a: Materialism has a positive relationship with CBB
2. H1b: Negative Feeling has a positive influence on CBB
3. H1c: Stress Feeling has a positive influence on CBB
4. H1d: Self-esteem has a negative influence on CBB
5. H1e: Celebrities has a positive influence on CBB
6. H1f: Peer Group has a positive influence on CBB

H2: the moderating role of perceived service quality

H2a:SQ moderates the relation between materialism and positive feeling

H2b:SQ moderates the relation between negative feeling and positive feeling

H2c:SQ moderates the relation between stress and positive feeling

H2d:SQ moderates the relation between self-esteem and positive feeling

H2e:SQ moderates the relation between Celebrities and positive feeling

H2f:SQ moderates the relation between peer-group and positive feeling

H2h:SQ moderates the relation between materialism and Hiding Behavior

H2i:SQ moderates the relation between negative feeling and Hiding Behavior

H2j:SQ moderates the relation between stress and Hiding Behavior

H2k:SQ moderates the relation between self-esteem and Hiding Behavior

H2l:SQ moderates the relation between Celebrities and Hiding Behavior

H2m:SQ moderates the relation between peer-group and Hiding Behavior

3.4 Research Methodology

3.4.0 Introduction

This section contains research methodology, population and sample of the study, measurement of variables and data analysis techniques.

3.4.1 Research Design

The descriptive quantitative approach was followed to provide the relational relationship between antecedents, CBB and perceived service quality. The study adopted a descriptive survey design to collect data for analysis (quantitative scale). Personal scanning tool (questionnaire) was used. The measurement scales for our constructs were adapted from the literature. The questionnaire included 53 items. 30 items for measuring the independent variable, 11 items to measure the dependent variable Cost reduction and 12 items for measuring the moderator variable perceived service quality. Respondents were required to assess their agreement or disagreement with the statements provided in the questionnaire using a five-point Liker scale.

3.4.2 Methodology

Creswell (2005) asserted that quantitative research is a type of educational research in which the researcher decides what to study, asks specific, narrow questions, collects numeric (numbered) data from participants, analyzes these numbers using statistics, and conduct the inquiry in an unbiased, objective manner. Variables can be defined as attributes or characteristics of individual groups or sub-groups of individual Creswell (2009). Quantitative approach is one in which the investigator primarily uses postpositive claims for developing knowledge i.e., cause and effect relationship between known variables of interest or it employees strategies of inquiry such as experiments and surveys, and collect data on predetermined instruments that yield statistics data (Creswell

2009).quantitative method is a study involving analysis of data and information that are descriptive in nature and qualified (Sekaran, 2003)

In the shadow of this, according to the method used in this research; this research employed quantitative method while conducting the study. consistent with the purpose of this study to investigate the antecedents of CBB and the moderating role of SQ on Compulsive Buying in Sudan.

3.4.3 Population and Sample of the Study:

Target Population:

The target population contains members of a group that a researcher is interested in studying. The results of the study are generalized to this population, because they all have significant traits in common (Referce.com). Therefore, target population are the Shopping Mall visitors. ALWAHA Mall, AFRA and CITY PLAZA (cosmetics stores, new-fashion clothes store and hypermarket) in Khartoum. The probability of compulsive buying incident is higher in a shopping mall setting as compared to any other setting as 89% of compulsive buying episodes occur in shopping malls or stores (Mitchell et al., 2006; Weinstein et al., 2016; Maraz et al., 2015). Therefore, we consider shopping mall visitors to be the best population.

Target sample:

The target respondent of the survey will be shopping mall visitors, they are the best in position to answer the questions of the survey because their behavior appears clearly while their visits to the shops and stores

Um Sekaran (2003) have created a table for determining sample size with respective population that recommends for population exceed or equal to 1000000 will need sample size of 395". In the shadow of this, the use sample was a convenience sample (sample size 395) and the unit of the analysis is the shopping mall.

3.4.4 Designing and developing questionnaire:

This study questionnaire will contain two divisions as follow:

1) Antecedents and CBB
2) Perceived Service Quality

Step I: Formatting Questionnaire:
This step involves the conversion of the research objectives into information essential to attain the needed output of the questionnaire, it involves formatting the clear statements. All research questions in this study had been converted into the relevant questions and clearly stated. The questionnaire was developed into two languages (English and Arabic) both versions were back to back translated. A judgment committee from Sudan University gave their recommendation for wording, removal/addition for questions to ensure construct measurement accuracy and elements used in each dimension. After introducing the amendments which was recommended by the supervisor and the committee, the questioner printed out in order to conduct the Pilot Test. Judgment Committee list attached in Appendix A.

Step II: Question Warding
This step examines whether the question is clear to all respondents. Thus, it is important to use simple terminologies to avoid double-barreled or misleading and confusing questions. As well, take into consideration questions length, phrasing. Sample statements were used to be easily understood and to be answered within ten to fifteen minutes.

Step III: Sequence and Layout Design
This step concerns the sequence and flow of the statements in order to attain respondent's collaboration. In this sense, instruments start with easy and general question and gradually move to sensitive and private questions. Moreover, the attractive questionnaire layout is considered because it guarantees items clarity.

3.5 Measurement of the Variables

3.5.1 Antecedents of Compulsive Buying Behavior Measurement

❖ **Materialism**

According to S. Todd Weaver, George P. Moschis, Teresa Davis (2011) Materialism will be measured using a scale developed by Richins and Dawson (1992). Items reflecting each of the three dimensions of success, happiness and acquisition centrality. The measurement of Materialism in this study will be 9 items evaluating on five-point Likert scale, with responses ranging from (1) "strongly disagree" to (5) "strongly agree".

The variable	No.	Items	Source
Materialism	9	1.Do you feel that you have all the things you really need to enjoy life? 2.How do you feel about having a lot of luxury in your life? 3.How do you feel about acquiring material possessions as an achievement in life? 4.Would your life be any better if you owned certain things that you don't have? 5.How do you feel about people who own expensive homes, cars, and clothes? 6.How much pleasure do you get from buying things? 7.How do you feel about things you own? 8.How do you feel about owning things that impress people? 9.How do you approach your life in terms of your life possessions (i.e., buying and owning things)?	Richins and Dawson (1992).

❖ **Negative Feeling** Compulsive buyers purchase items to escape from negative emotions. Compulsive buying behavior usually occurs in the context of negative feelings (Billieux et al., 2008). In

this study negative feeling measured by two items rated on a scale from l=strongly agree to 5=strongly disagree.

The variable	No.	Items	Source
negative feeling	2	1.Having a bad day can lead me to go on a buying spree")* 2.When I feel bad, I go shopping	(Nancy M. Ridgway 2008)*

❖ **Stress**

Saman et al. (2018) mentioned that Stress acts as a trigger where compulsive buyers get an emotional need to reduce their tension by buying things. DASS-21 is based on a dimensional rather than a categorical conception of psychological disorder, 7 out of21 items used for scaling stress. The stress scale is sensitive to levels of chronic nonspecific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset / agitated, irritable / over-reactive and impatient. In this study stress is measured by seven items rated on a scale from l=strongly agree to 5=strongly disagree.

The variable	No.	Items	Source
Stress	7	1. I found it hard to wind down until I buy something 2. I tended to over-react to situations then I go to shop 3. I felt that I was using a lot of nervous energy then I go shopping to release it 4. I found myself getting agitated until I buy something 5. I found it difficult to relax until I buy something 6. I was intolerant of anything that kept me	(Lovibond & Lovibond, 1995).

		away from shopping 7. I felt that I was rather touchy (moody) so I like to shop	

❖ **Self-Esteem**

Low self-esteem has consistently been found to increase the likelihood of compulsive buying (d'Astous et al. 1990; Faber and O'Guinn 1998). According to S. Todd Weaver, George P. Moschis, Teresa Davis (2011) ;Self-esteem will be measured using a scale designed to tap an individual's state self-esteem (Heatherton and Polivy 1991). The measurement of self-estim in this study will be three items Using a five-point Likert scale, respondents were asked to express their level of agreement with the statements provided.

The variable	No.	Items	Source
Self-esteem	2	1. I feel am respectable person 2. If my self-esteem were higher, I would not buy much	Park, Jaworski and MacInnis (1986).

❖ **Celebrates**

T.Islam et al. (2017) mentioned that "A Media Celebrities Endorsement construct was measured by asking respondents statement with three item Using a five point Likert scale, respondents were asked to express their level of agreement with the statements provided.

The variable	No.	Items	Source
Celebrates	3	1. Media Celebrities influence me 2. Media Celebrities influence me looking good 3. Media Celebrities influence me	T.Islam et al. (2017)

The variable	No.	Items	Source
		appearing attractive to others	

❖ **Peer Group**

Peer pressure is a strong influence among adolescents and young adults. d'Astous et al. (1990) found that friends play a significant role in adolescents' consumption experiences. Compulsive buyers are typically guided by responses of others or by other external points of reference. In this study peer group measured by eight items Using a five-point Likert scale, respondents were asked to express their level of agreement with the statements provided.

The variable	No.	Items	Source
Peer Group	8	1. You ask your friends for advice about buying things. 2. You and your friends talk about buying things. 3. You and your friends talk about things you saw or heard advertised. 4. You wonder what your friends would think when you were buying things for yourself. 5. Your friends ask you for advice about buying things. 6. Your friends tell you what things you should or should not buy. 7. You go shopping with your friends. 8. You try to impress your friends.	(Moschis and Moore, 1979).

3.5.2 Compulsive Buying Behavior

The CBS, developed by Faber and O'Guinn (1992), is a screening instrument utilized to identify compulsive buyers. The CBS consists

of seven statements representing specific behaviors and feelings related to compulsive buying. In effect, two out of seven statement excluded cause using credit cards in Sudan is not the individual common payment method, consumer pay in cash.

the first statement, ''If I have any money left at the end of the pay period, I just have to spend it,'' is rated on a scale from l=strongly agree to 5=strongly disagree. The other   statements are rated on a scale from l=very often to 5=never

The variable	No.	Items	Source
CBB	5	1. If I have any money left at the end of the pay period, I just have to spend it 2. Felt others will be horrified if they knew my spending habits 3. Bought things even though I couldn't afford it 4. Bought something in order to make my-self feel better 5. Felt anxious in the days I didn't go shopping	Faber and O'Guinn (1992)

❖ **Positive feeling**

Saman et al (2018) mentioned that experienced after compulsive buying may act as reinforcement for compulsive buying behavior. Mc Elroy (1994) noted that about 70% of compulsive buyers in his study described their emotions immediately after buying as a high out of control, intoxicated and elated.

The variable	No.	Items	Source

Positive feeling	3	1. "I find buying very pleasurable," 2. "The process of buying provides me with a lot of gratification (at least temporarily)," 3. "I feel excited when I go on a buying spree."	(Nancy M. Ridgway 2008)

❖ **Hiding Behavior**

(Lejoyeux, 2010) proved that the primary focus of compulsive buyers is the buying process rather than the items bought and because of lack of interest in purchased items, they either hide them or give them away as gifts Some authors have proposed that because of the negative consequences of compulsive buying, they often end up in conflicts with friends and family (De Sarbo& Edwards, 1996). The friends and family start distrusting them and try to control their erratic behavior

The variable	No.	Items	Source
Hiding behavior	3	1. "I sneak new purchases into where I live," 2. "I hide the things I buy from others (e.g., family, roommate, or partner)," 3. "I have lied about how much I buy."	(Nancy M. Ridgway 2008)

3.5.3 Perceived Service Quality Measurement

C. A. Gronroos (1990) defined SQ as a series of activities of intangible nature that take place in interactions between physical resources (customer and service employees) or goods or systems of the service provider. SERVQUAL model measures the difference between customers' expectations of quality of service providers and their perceptions about the

actual performance of a service provider (Parasuraman, et al. 1985). Sandra Jelčić et al. mentioned that "SERVQUAL (Parasuraman et al. 1988) and RSQS (Dabholkar et al. 1996) are the most common instruments used to measure SQ in retail. Considering different market environments neither SERVQUAL nor RSQS should be solely applied

Those are: merchandising, physical environment and interaction with employees. Understanding service quality dimension as predictors of total service quality and their successful management is precondition for successful planning and implementation of service marketing activities in hypermarkets."

Code	Indicators	Source
S1	This store offers wide range of products.	Sandra Jelčić et al. 2017.
S2	This store offers products of different quality	
S3	This store offers different brands of products.	
S4	This store always has enough stocks of products I purchase.	
S5	This shop offers products of different price range.	
S6	This store has modern-looking equipment and fixtures.	Dabholkar et al. 1996.
S7	This store has clean, attractive, and convenient public areas (restrooms, fitting rooms).	
S8	The store layout at this store makes it easy for customers to find what they need.	
S9	The store layout at this store makes it easy for customers to move around in the store	
S10	Employees in this store are consistently courteous with customers.	
S11	Employees in this store have the knowledge to answer customers' questions.	
S12	Employees in this store are never too busy to respond to customer's requests	
S13	The behavior of employees in this store instill confidence in customers.	
S14	This store provides plenty of convenient parking for customers.	

3.1 Table: Factorial analysis has been conducted on 14 indicators (based on the work of Dabholkar et al. 1996 and author's own indicators)

Data was collected using a quantitative approach. A five-point Likert scale, ranging from "1 = strongly disagree" to "5 = strongly agree" was used to measure all items.

3.6 PILOT TEST

This step includes conducting a pilot test on the questionnaire to emphasize that questionnaire meets researchers' expectations without ambiguities, suitable questions lengths and double-barreled questions. The PILOT TEST objective is to eliminate the statements confusion and checking variables reliability. Therefore, to determine the reliability, the Cronbach's (1951) coefficient alpha will be used to measure repeatability.

Type of variables	Variables	Cronbach's alpha
Independents	Materialism	0.87
	Negative Feeling	0.84
	Stress	0.84
	Self-Esteem	0.83
	Celebrities	0.84
	Peer Group	0.83
Dependents	CBB	0.83
	Positive Feeling	0.82
	Hiding Behavior	0.83
Moderator	Perceived service quality	0.87

3.7 STATISTICAL TOOLS

The data collection selected for this research is questionnaire that allows the research to collect quantitative data. The tools SPSS and AMOS version 25 will be used to analyze collected data.

Qualifications for measures and threshold will be part of the analysis process such as reliability (Cronbach's alpha), exploratory factor analysis EFA, KMO, convergent and discriminant validity structure equation model SEM Model Fit and hypotheses significance

3.8 SUMMARY

This chapter explains the development of hypotheses, theoretical framework, measurement, research methodology, data collection and analysis procedures. The next chapter will explain the data analysis in details in addition to the research findings.

CHAPTER FOUR

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter shows the process through which the data that was collected from firms represents was analyzed to presents the findings. The chapter was organized into four sections. The first section concerns with data cleaning, response rate, and the characteristics of both firms and respondents, followed by the goodness of measures which discusses the reliability of the measurement. The third section shows the descriptive analysis of the study variables. The last section focuses on the results of path analysis and hypotheses testing.

4.2 Data cleaning

Data cleaning deals with detecting and removing errors and inconsistencies from data in order to improve the quality of data. The need for data cleaning is centered on improving the quality of data to make them "fit for use" by users through reducing errors in the data and improving their documentation and presentation (Chapman, 2005). Data quality problems are present in single data collections due to misspellings during data entry, missing information or other invalid data. When multiple data sources need to be integrated, or analysis programs need to be used, the need for data cleaning increases significantly. Thus, in this study data cleaning is used to manipulates missing data, unengaged responses, and outliers.

4.2.1. Missing Data

Missing data is common and always expected in the process of collecting and entering data due to lack of concentration and/or the misunderstanding among

respondents, and missing information or other invalid data during the entry of data. Missing data can cause several problems. The most apparent problem is that there simply won't be enough data points to run the analysis and particularly in structural equation model (SEM). Both exploratory and confirmatory factor analysis and path models require a certain number of data points in order to compute estimates. Additionally, missing data might represent bias issues. Some people may not have answered particular questions in survey because of some common issue. If missing data is more than 10% of the responses on a particular variable, or from a particular respondent, that variable or respondent may be problematic. In this study remove 11 questionnairesbecause their responseslower than 10%.

4.2.2. Unengaged responses

Unengaged responses mean some responses giving same answer for all the questionnaire it seems to be random answers, in this case we use standard deviation to find out any unengaged response this means that any standard deviation of responses less than 0.5 when Likert's five-point scale is used just deleted. Therefore, in this study no questionnaires were found to have standard deviation less than 0.5.

4.2.3. Outliers

It's very important to check outliers in the dataset. Outliers can influence the results of analysis. If there is a really high sample size, the need for removing the outliers is wanted. If the analysis running with a smaller dataset, you may want to be less liberal about deleting records However, outliers will influence smaller datasets more than largest ones. However, after checked outliers the results of dataset show that no any outliers, everything in dataset is logic and acceptable.

4.3 RESPONSE RATE:

Table (4.1) Response rate of questionnaire

	Response
Total distributed questionnaires of respondents	395
Total questionnaires received from respondents	335
Questionnaires not received from respondents	60
Questionnaires not valid for missing data	11
Questionnaires not valid for Unengaged responses	0
Questionnaires not valid for Outliers	0
Questionnaires valid to analysis	324
Overall response rate	85%

Source: prepared by researcher from data (2018)

4.4 RESPONDENTS CHARACTERISTICS

Based on the descriptive statistics using the frequency analysis this part investigates the profiles of persons that participated in the survey on the light of six characteristics, these are the gender, age, marital status, qualifications, job degree and experience. Table 4.2 show respondent's characteristics, in the gender, rate (61.7%) respondents were male and (38.3%) respondents werefemale that represent the lower ratios.

Furthermore, the respondent's age, From 20 to 30 are representing a rate (24.4%), From 31 to 40 representing a rate (34.0%), From 41 to 50 representing a rate (27.5%), From 51 to 60 (12.7%), the last in this group More than 60 years are few number 5 frequencies and represented in (1.5%). The respondent's marital status, that fill up the questionnaires, majority of them the Married are representing a rate (70.1 %) followed by single are representing a rate (25.0%), and other

representing a rate (4.9%) as lower ratios. Concerning the respondent's qualificationsmajority of them were graduate which represent (65.1%), followed by High graduate were representing a rate (29%), followed by Under graduate were representing a rate (5.8%), other were representing a rate (.6%) represent the lower ratios. Regarding the Job degree, the majority of the respondents 'employee (30.9%) followed by a employer was rate (27.8%), followed by free business were rate (12.9%), followed by rayed house were rate(11.7%), followed by unemployed were rate (9.8%), and student were rate (23%) represent the lower ratios. Regarding the experience, the high respond rate is +70001 (29.6%) followed by from 10001 – 70000 were rate (26.7%), followed by from 3001 - 10000 were rate (24.7%), and Less than 3000 were rate (18.8%) represent the lower ratios.

Table (4.2): respondent's characteristics

Variable	Categories	Frequency	Percentage
Gender	Male	200	61.7
	Female	124	38.3
Total		**324**	**100%**
Age	From 20 to 30	79	24.4
	From 31 to 40	110	34.0
	From 41 to 50	89	27.5
	From 51 to 60	41	12.7
	More than 60	5	1.5
Total		**324**	**100%**
Marital status	Single	81	25.0
	Married	227	70.1

	Other	16	4.9
Total		**324**	**100%**
Qualifications	Under graduate	17	5.2
	Graduate	211	65.1
	High graduate	94	29.0
	Other	2	.6
Total		**324**	**100%**
Job	Employer	90	27.8
	Employee	100	30.9
	free business	42	12.9
	Raya House	38	11.7
	Student	23	7.1
	Unemployed	31	9.8
Total		**324**	**100%**
Experience	Less than 3000	61	18.8
	3001 -10000	80	24.7
	10001 -70000	87	26.9
	+70001	96	29.6
Total		**324**	**100%**

Source: prepared by researcher, (2019).

4.4.1 Goodness of measures

This section, reports the results of validity and reliability tests as a means to assess the goodness of measure in this study constructs (Sekaran, 2003). The study

used exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). The following are the detailed information of each.

4.4.2. Exploratory factor analysis (EFA)

Exploratory factor analysis (EFA) is a statistical approach for determining the correlation among the variables in a dataset (Gaskin, 2016). This type of analysis provides a factor structure (a grouping of variables based on strong correlations). In general, an (EFA) prepares the variables to be used for cleaner structural equation modeling. An EFA should always be conducted for new datasets. The beauty of an (EFA) over a (CFA) confirmatory is that no a priori theory about which items belong to which constructs is applied. This means the (EFA) will be able to spot problematic variables much more easily than the (CFA). Therefore, this study used exploratory factor analysis for testing the validity and uni-dimensionality of measures to all variables under study, followed the assumptions recommended by (Lowry & Gaskin, 2014) as follow:

- There must be a clean pattern matrix.
- Adequacy.
- Convergent validity.
- Discriminant validity.
- Reliability.

4.4.3. Exploratory factor analysis for Compulsive Buying Behavior Antecedents

Thirty items were used to measure the independent variable (Compulsive Buying Behavior Antecedents) were subjected to exploratory factor analysis using maximum likelihood (ML), the summary of results was showed in Table 4.3

below. All the remaining items has more than recommended value of at least 0.40 in measure of sample adequacy (MSA) with (KMO) value of 0.916 above the recommended minimum level of 0.60, and Bartlett's test of sphericity is significant (p<.01). Thus, the items are appropriate for factor analysis.

Table (4.3) exploratory factor analysis for Compulsive Buying Behavior Antecedents

Code of items	Components		
	1	2	3
MATERIALISM 1	.813		
MATERIALISM 2	.851		
MATERIALISM 3	.774		
MATERIALISM 4	.741		
MATERIALISM 5	.765		
MATERIALISM 6	.807		
MATERIALISM 7	.799		
MATERIALISM 8	.710		
MATERIALISM 9	.665		
STRESS 1		.837	
STRESS 2		.831	
STRESS 3		.885	
STRESS 4		.771	
STRESS 5		.761	
CELEBRITIES1			.555
CELEBRITIES2			.888
CELEBRITIES3			.747

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.916
Bartlett's Test of Sphericity	3044.479
Total Variance Explained	63.766

Source: prepared by researcher from data analysis (2019)

4.4.4. Exploratory factor analysis for Compulsive Buying Behavior Antecedents

five items were used to measure the independent variable (Compulsive Buying Behavior antecedents) were subjected to exploratory factor analysis using maximum likelihood (ML) the summary of results was showed in Table 4.4 below. All the remaining items has more than recommended value of at least 0.40 in measure of sample adequacy (MSA) with (KMO) value of 0.824 above the recommended minimum level of 0.60, and Bartlett's test of sphericity is significant (p<.01). Thus, the items are appropriate for factor analysis

Table (4.4) Exploratory Factor Analysis for Compulsive Buying Behavior Antecedents 1

Code of items	Component
	1
MATERIALISM	.680
STRESS	.846
CELEBRITIES	.864
PEER GROUP	.815

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	**0.824**
Bartlett's Test of Sphericity	**764.429**
Total Variance Explained	**64.782**

Source: prepared by researcher from data analysis (2019)

4.4.5. Exploratory Factor Analysis for CBB Antecedents

nineteen items were used to measure the dependent variable (positive feeling and hiding behavior) were subjected to exploratory factor analysis using maximum likelihood (ML) the summary of results was showed in Table 4.5 below. All the remaining items has more than recommended value of at least 0.40 in measure of sample adequacy (MSA) with (KMO) value of 0.875 above the recommended minimum level of 0.60, and Bartlett's test of sphericity is significant ($p<.01$). Thus, the items are appropriate for factor analysis.

Table (4.5) Exploratory Factor Analysis for CBB Antecedents 2

Code of items	Component			
	1	2	3	4
MATERIALISM 1				.886
MATERIALISM 2				.922
MATERIALISM 3				.847
MATERIALISM 4				.546
STRESS1		.744		
STRESS2		.861		
STRESS3		.850		

STRESS4		.821	
STRESS5		.721	
CELEBRITIES1			.760
CELEBRITIES2			.822
CELEBRITIES3			.839
PEER GROUP1	.816		
PEER GROUP2	.839		
PEER GROUP3	.860		
PEER GROUP4	.832		
PEER GROUP5	.749		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy			**0.875**
Bartlett's Test of Sphericity			**3428.169**
Total Variance Explained 68.513			

Source: prepared by researcher from data analysis (2019)

4.4.6.1 Confirmatory factor analysis

Confirmatory Factor Analysis (CFA) is the next step after exploratory factor analysis to determine the factor structure of dataset. In the (EFA) we explore the factor structure (how the variables relate and group based on inter-variable correlations); in the (CFA) we confirm the factor structure we extracted in the (EFA).

Table (4.6) Exploratory Factor Analysis for Compulsive Buying Behavior Antecedents 3

Code of items	Component
	1
MATERIALISM	.78

STRESS	.81
CELEBRITIES	.85
PEER GROUP	.86
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	**0.824**
Bartlett's Test of Sphericity	**764.429**
Total Variance Explained	**64.782**

Source: prepared by researcher from data analysis (2019)

4.4.6.2. Confirmatory factor analysis for positive feeling and hiding behavior

The statistical analysis software package was used AMOS (Analysis of Moments of Structure) to perform the process of confirmatory factor analysis for the model, as this package is uses to test the hypotheses relating to the existence or non-existence of a relationship between the variables and underlying factors. The confirmatory factor analysis is also using to assess the ability of the factor model to change from the actual dataset and also to compare several models of factors in this area. Figure (4.1) below show the Confirmatory Factor Analysis for independent variables (positive feeling and hiding behavior)

Figure (4.1) Confirmatory Factor Analysis for Compulsive Buying Behavior
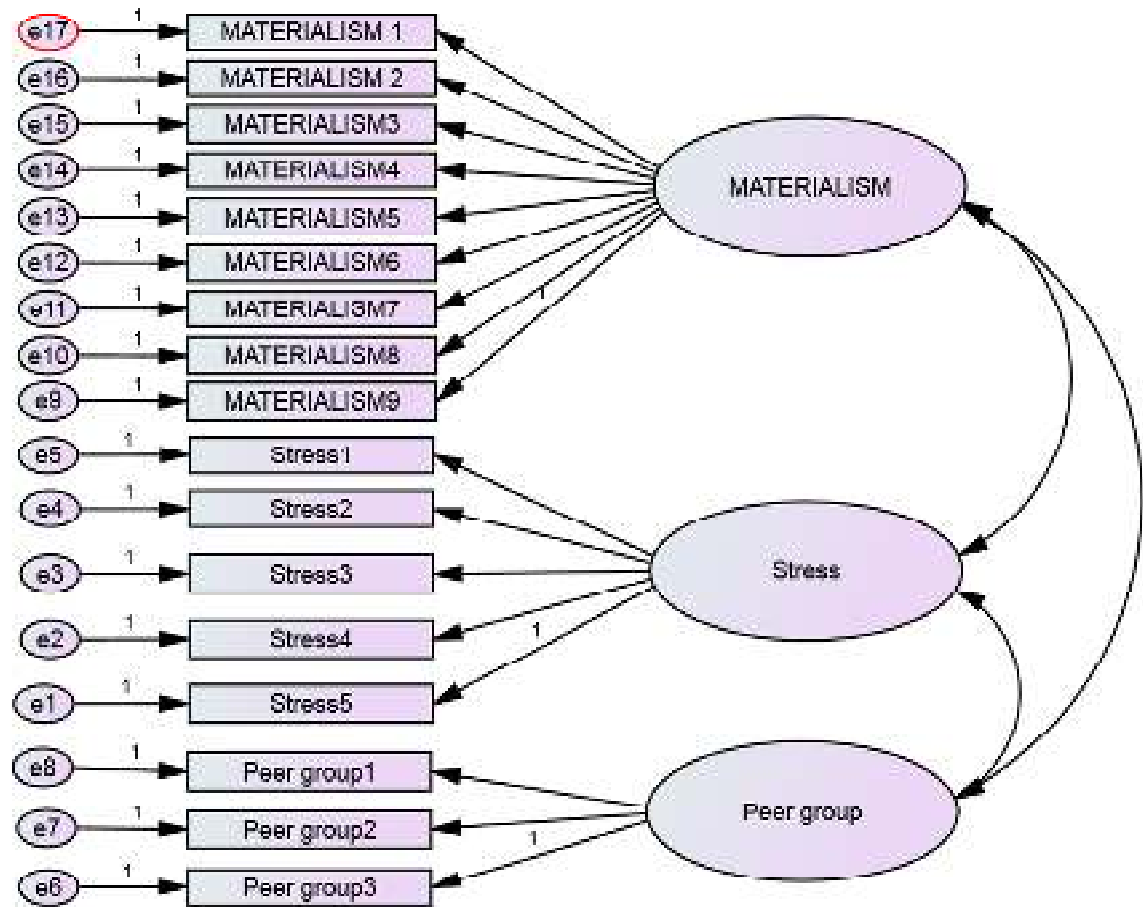
Source: prepared by the researcher from data (2019).

The (CFA) fit for independent variables indices show that the measurements model fits the data well: Chi-square/degree of freedom (cmin/df) = 3.335; incremental fit index (IFI) = .909; comparative fit index (CFI) = .909; goodness of fit index (GFI) = .867; adjusted goodness of fit index (AGFI) = .825; square root mean of residual (SRMR) = .049; root mean square error of approximation (RMSEA) = .085; and P Close = .000.

4.4.7.1. Confirmatory factor analysis for Compulsive Buying Behavior

The statistical analysis software package was used (AMOS)to perform the process of confirmatory factor analysis for the model, as this package is uses to test the hypotheses relating to the existence or non- existence of a relationship between the variables and underlying factors.The confirmatory factor analysis is also using to assess the ability of the factor model to change from the actual dataset and also to compare several models of factors in this area. Figure (4.2) below show the confirmatory factor analysis for dependent variables (Compulsive Buying Behavior).

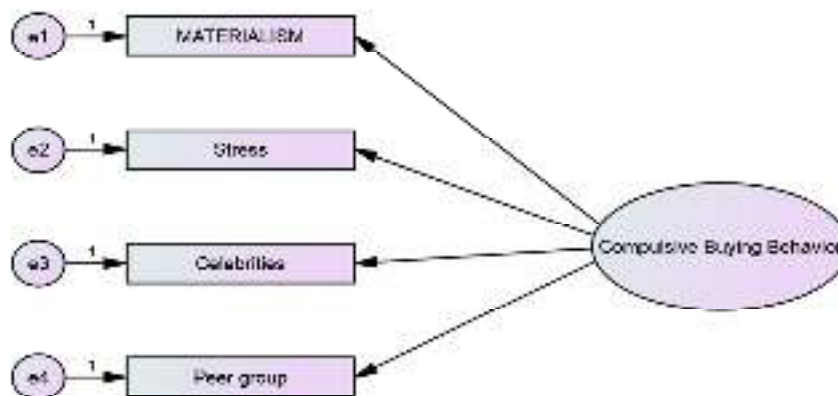**Figure (4.2) Confirmatory Factor Analysis for Compulsive Buying Behavior**

Source: prepared by the researcher from data (2019).

The (CFA) fit for independent variables indices show that the measurements model fits the data well: Chi-square/degree of freedom (cmin/df) = 9.758; incremental fit index (IFI) = .943; comparative fit index (CFI) = .942; goodness of fit index (GFI) = .943; adjusted goodness of fit index (AGFI) = .828; square root mean of residual (SRMR) = .026; root mean square error of approximation (RMSEA) = .165; and P Close = .000.

4.4.7.2. Confirmatory factor analysis Compulsive Buying Behavior

The statistical analysis software package was used (AMOA)to perform the process of confirmatory factor analysis for the model, as this package is uses to test the hypotheses relating to the existence or non- existence of a relationship between the variables and underlying factors.The confirmatory factor analysis is also using to assess the ability of the factor model to change from the actual dataset and also to compare several models of factors in this area. Figure (4.3) below show the confirmatory factor analysisfor mediating variables (knowledge sharing attitude)

Figure (4.3) Confirmatory Factor Analysis for Compulsive Buying Behavior
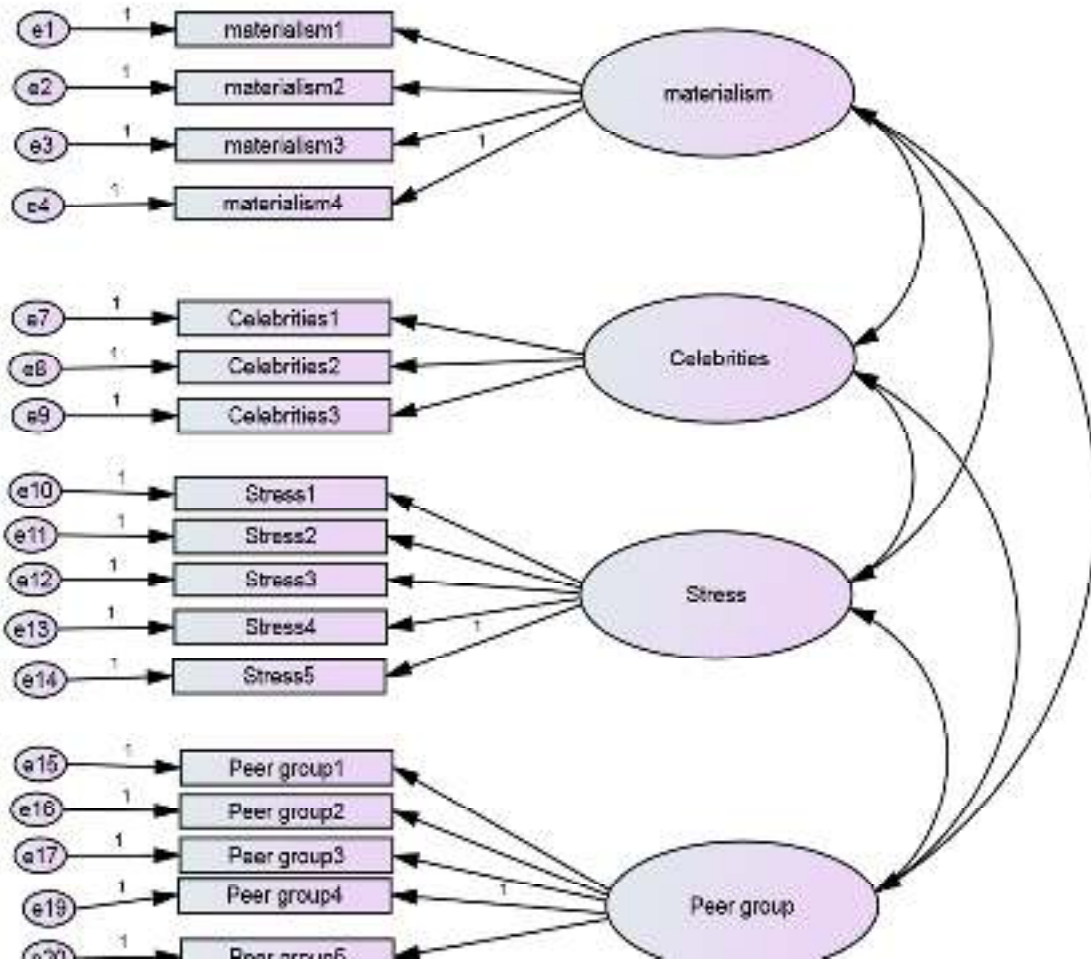

Source: prepared by the researcher from data (2019).

The (CFA) fit for independent variables indices show that the measurements model fits the data well: Chi-square/degree of freedom (cmin/df) = 3.875; incremental fit index (IFI) = .919; comparative fit index (CFI) = .918; goodness of fit index (GFI) = .876; adjusted goodness of fit index (AGFI) = .838; square root mean of residual (RMR) = .045; root mean square error of approximation (RMSEA) = .076; and P Close = .000.

4.4.8. Goodness of Model Fit

There are specific measures that can be calculated to determine goodness of fit. The thresholds listed in the table (4.7) below are simply a guideline.

Table 4.7 Measures to Determine Goodness of Model Fit

Measure	Threshold
Chi-square/degree of freedom(cmin/df)	< 3 good; < 5 sometimes permissible
P-value for model	>. o5
CFI	>.95 great; >.90 traditional; >.80 sometimes permissible
GFI	>.95
AGFI	>.80
SRMR	<.09
RMSEA	<.5 good; .05-.10 moderate;> 10 bad
P Close	>.05

Source: Adopted from (Gaskin, 2017)

Based on the thresholds listed in Table (4.7) above the confirmatory factor analysis (CFA) was run to check the validation of the measurements.

4.4.9 Reliability analysis

This study used Cronbach's alpha as diagnostic tool to assess the degree of internal consistency between multiple measurements of variables. (Hair *et al*, 2019) stated that the lower limit for Cronbach's alpha is 0.70, although it may decrease to 0.60 in exploratory research. While Nunnally (1978) considered Cronbach's alpha values greater than 0.60 are taken as reliable. Given that Cronbach's alpha has being the most widely used measure (Sharma, 2000). Table

4.8 presents the summary of the results for reliability analysis. Confirmed that all the scales display the satisfactory level of reliability (Cronbach's alpha exceed the minimum value of 0.60). Therefore, it can be concluded that the measures have acceptable level of reliability.

Table (4.8) Reliability for Study Variables After EFA

Construct	Variables	Number of items	Cronbach's alpha
COMPULSIVE BUYING BEHAVIOR + PERCEIVED SERVICE QUALITY	MATERIALISM	9	**.920**
	PEER GROUP	5	**.882**
	CELEBRITIES	3	**.766**
	Stress	7	**.856**

Source: prepared by researcher from data analysis (2019)

4.5. Descriptive analysis

Descriptive statistics such as mean and standard deviation was used to describe the characteristics of the firms and all the variables (compulsive buying behavior and positive feeling and hiding behavior) under the study. Given that the study includes some of firm characteristics such as gender, age, marital status, qualifications, job degree and experience.

4.5.1. Descriptive analysis of the model

Table (4.9) shows the means and standard deviations of the study variables Materialism and Negative Feeling and Stress and Self esteem and Celebrities and Peer group emphasized theattitude toward compulsive buying behavior and positive feeling and hiding behavior was in the top ranking score (mean=1.7809,

standard deviation=.58696), followed by knowledge sharing intention(mean=1.7846, standard deviation=.59649), followed by expected associations (mean=1.7858, standard deviation=.59172), followed by expected contribution (mean=1.8938, standard deviation=..57810), followed by employee attitude (mean=1.9988, standard deviation=.71723), followed by work group support (mean=2.0938, standard deviation=.69485), followed by organizational culture and immediate supervisor (mean=2.3433, standard deviation=.80917) and expected rewards (mean=2.4823, standard deviation=.90763). Given that the scale used a 5-point scale (1=strongly agree, 5=strongly disagree), this finding indicates that the attitude toward knowledge sharing tends to inhabit high position in toward compulsive buying behavior and positive feeling and hiding behavior.

Table 4.9 Descriptive Analysis of the model

Variables name	Mean	Standard Deviation
MATERIALISM	2.3433	.80917
STRESS	1.9988	.71723
CELEBRITIES	1.7846	.59649
PEER GROUP	2.4823	.90763
COMPULSIVE BUYING BEHAVIOR	1.7858	.59172
POSITIVE FEELING	1.8938	.57810
HIDING BEHAVIOR	1.7809	.58696

Note: All variables used a 5-point likert scale (1= strongly agree, 5= strongly disagree)

4.5.2 Correlation analysis

The correlation analysis was used between the study variables with aim of identifying the correlative relationship between the independent, dependent,

mediating and moderating variables, so whenever the closer the degree of correlation to the integer one, the stronger the correlation between the two variables, whenever the less the degree of correlation than the integer one, the weaker the relationship between the two variables, and the relationship may be direct or inverse. In general, the relationship is weak if the value of the correlation coefficient is less than (0.30), and it can be considered medium if the correlation coefficient value ranges between (0.30-0.70), yet if the value of the correlation is more than (0.70) the relationship is considered strong between variables, and the correlation is considered positive if its value is negative. Table (4.10) shows the values of link between variables.

Table (4.10) Person correlation coefficient for all variables

Variables	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
MATERIALISM	1							
STRESS	.540**	1						
SELF ESTEEM	.383**	.585**	1					
CELEBRITIES	.354**	.487**	.471**	1				
PEER GROUP	.542**	.396**	.299**	.256**	1			
COMPULSIVE BUYING BEHAVIOR	.274**	.462**	.366**	.575**	.354**	1		

POSITIVE FEELING	.219**	.207**	.224**	.317**	.257**	.422**	1	
HIDING BEHAVIOR	.163**	.224**	.199**	.337**	.198**	.372**	.470**	1

Source: prepared by the researcher from data (2019).

Figure (4.4) below show the correlation analysis between study variables, as it was explained that there were moderate links between study variables, and that there were strong and weak links, and correlation analysis showed that there was a reverse correlation between same variables. In the following are hypotheses testing the last part of data analysis and findings.

Figure (4.4): Correlation analysis between study variables.
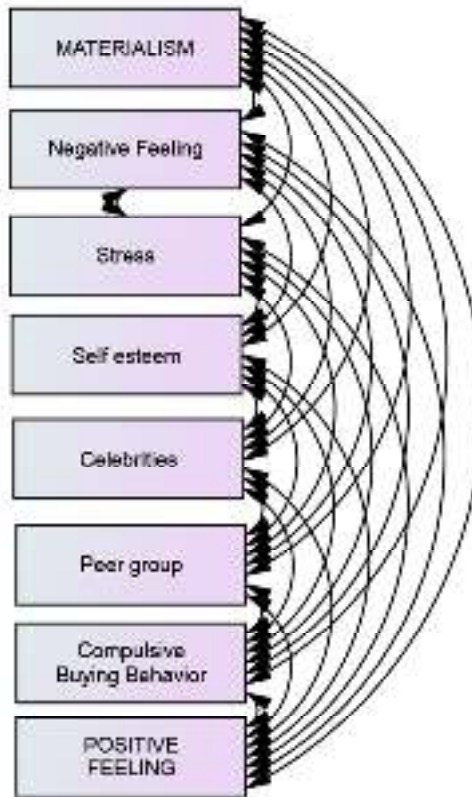
Source: prepared by the researcher from data (2019).

4.6. Modification of conceptual framework and hypotheses

4.6.1 As a result of factor analysis, the initial Framework of this study had been changed, the independent variables (antecedents of CBB) have been changed and the dependent variables remained without change. However, the variables related to antecedents of CBB have been changed to **four** variables, materialism and stress and celebrities and peer group. Sequentially, the initial hypotheses presented with the proposed model will be restated. Figure (4.5) presents the

modified conceptual framework, and the restated hypotheses are shown in table (4.10).

Figure (4.5): The Modified conceptual framework.
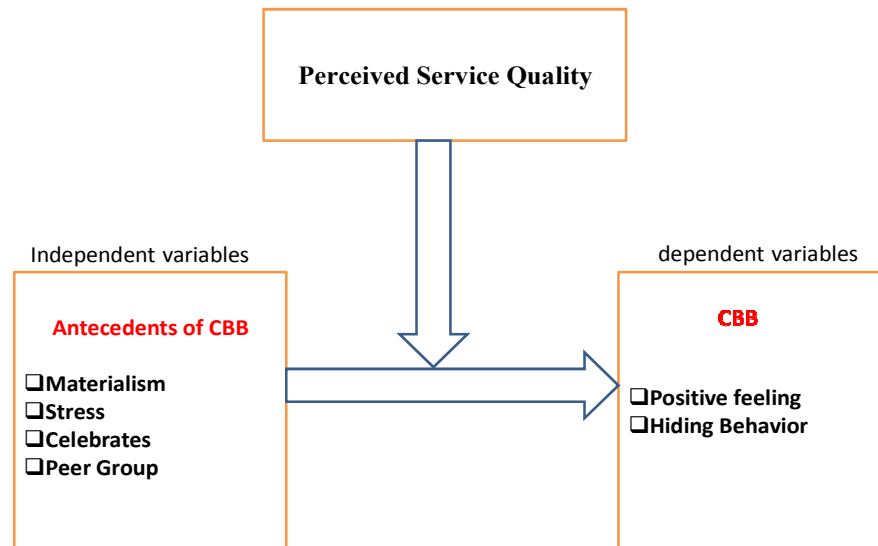
Table (4.11) The Restated Hypotheses (Two Main Hypotheses)

	First hypotheses
H1a	Materialism has a positive relationship with compulsive buying behavior
H1b	Stress Feeling has a positive influence on compulsive buying behavior
H1c	Celebrities has a positive influence on compulsive buying behavior
H1d	Peer Group has a positive influence on compulsive buying behavior
	Second hypotheses
H2a	SQ moderates the relation between materialism and positive feeling
H2b	SQ moderates the relation between stress and positive feeling
H2c	SQ moderates the relation between Celebrities and positive feeling
H2d	SQ moderates the relation between peer-group and positive feeling

H2e	SQ moderates the relation between materialism and Hiding Behavior
H2f	SQ moderates the relation between stress and Hiding Behavior
H2h	SQ moderates the relation between Celebrities and Hiding Behavior
H2i	SQ moderates the relation between peer-group and Hiding Behavior

4.6.2 Hypotheses testing

This section discusses the results of hypotheses of the study. The hypotheses were tested with the path analysis that discloses the effect of independent variables on dependent variables and the effect of moderator in relationships between variables through the structural equation modeling (SEM) that grows out of and serves purposes similar to multiple regression, but in more powerful way which takes in account the modeling of interactions between variables, nonlinearities, correlated independents, measurement error, correlated error terms, multiple latent independents each measured by multiple indicators, and one or more latent dependents also each with multiple indicators (Gaskin, 2018). SEM may be used as a more powerful alternative to multiple regression, path analysis, factor analysis, time series analysis, and analysis of covariance. That is, these procedures may be seen as special cases of SEM, or, to put it another way, SEM is an extension of the general linear model (GLM) of which multiple regression is a part. Given that the variables appeared in confirmatory factor analysis encompasses **12 hypotheses** in this study. The main effects as well as the moderating effect were examined using path analysis.

In order to perform path analysis, it is generally agreed that there are at least the assumptions of model fit should be met. It's given that the model fit was done

in **(CFA),** however the need to do it again in structural model is important in order to demonstrate sufficient exploration of alternative models (Gaskin, 2018).

4.6.1. The relationship between compulsive buying behavior and (Materialism, Negative Feeling, Stress Feeling, Self-esteem, Celebrities, Peer Group.

This section aims to investigate the first hypotheses in this study which assumes that the antecedents of compulsive buying behavior are (Materialism, Negative Feeling, Stress Feeling, Self-esteem, Celebrities, Peer Group). Based on the study model six hypotheses were developed to be tested. Therefore, to test these hypotheses, a similar process of path analysis using AMOS was conducted to predict the impacts of compulsive buying behavior dimensions on (Materialism, Negative Feeling, Stress Feeling, Self-esteem, Celebrities, Peer Group) intention.

Table (4.12) Regression Weights for Relationship Between CBB and ANTECEDENTS.

Relationship			Estimate	S.E.	C.R.	P
COMPULSIVE BUYING BEHAVIOR	<---	MATERIALISM	.075	.041	1.836	.04
COMPULSIVE BUYING BEHAVIOR	<---	STRESS FEELING	.227	.053	4.305	***
COMPULSIVE BUYING BEHAVIOR	<---	CELEBRITIES	.146	.079	1.841	.04
COMPULSIVE BUYING BEHAVIOR	<---	PEER GROUP	.233	.050	4.708	***

Source: prepared by the researcher from data (2019).

Table results can be interpreted as follows:

- The value of the estimate (estimate = 0.075, page> 0.04) is estimated to indicate the differences between the initial numbers of the study conducted by the initial term, which is lower than the moral level (0.05). The table (4-12) statistically significant at (5%) between responses of sample members and those who agree that **Materialism** has an impact on compulsive buying behavior.

- The value of the estimate (estimate = .277, p> .00) indicates the difference between the sample population in the sample according to the initial term that is below the moral level (0.05). Based on Table (4-12) (5%) between responses of sample members and those who agree that **stress** has an impact on compulsive buying behavior.

- The value of the estimate (estimate = .146, p> 0.04) for the significance of the differences between the sample numbers of the study according to the initial term is less than the moral level (0.05). Based on Table (4-12) (5%) between respondents' responses and those who approve them as **celebrities**, they have an impact on compulsive buying behavior.

- The estimated value (.233, p> 0.05) to indicate the differences between the sample numbers of the study according to the first term is below the moral level (0.05). Based on Table (4-12) (5%) between the responses of sample members and those who agree that the total number of **peer group** has an impact on forced buying behavior.

- From this we conclude that the first main hypothesis of the study, which stipulates "compulsive buying behavior" has been achieved and for the benefit of the approvers.

Table (4.13) **Regression Weights for Relationship Between Positive Feelings and ANTECEDENTS.**

Relationships			Estimate	S.E.	C.R.	P
Perceived Service Quality Positive feeling	<---	Materialism	.514	.062	8.306	0.00
Perceived Service Quality Positive feeling	<---	STRESS FEELING	.015	.043	.359	.0.33
Service Perceived Quality Positive feeling	<---	CELEBRITIES	.098	.046	2.150	.032
Perceived Service Quality Positive feeling	<---	PEER GROUP	.036	.047	.776	.04

Source: prepared by the researcher from data (2019).

The results of the table above can be explained as follows:

- The estimated value (.514, p> .00) indicates the difference between the numbers of the sample in the study according to the first term which is less than the moral level (0.05). Based on the table (4-13) (5%) between the responses of the sample members and those who agree that the **materialism** has an impact on perceived quality of service and positive feeling.
- • The estimated value (.015, p> .03) to indicate the differences between the numbers of the sample in the study according to the initial term, which is less

than the moral level (0.05). Based on the table (4-13) (5%) between the responses of the sample members and those who agree that **stress** has an impact on perceived quality of service and positive feeling.

- • The estimated value of the sample is 0.098, p> 0.03. The difference between the sample populations in the sample is lower than the mean level (0.05). Based on the table (4-13) (5%) between the responses of the sample members and those who agree that they are **celebrities** have an impact on perceived quality of service and positive feeling

- The value of the estimate (estimate = 0.036, p> 0.04) for the significance of the differences between the numbers of the sample in the study according to the initial term is less than the moral level (0.05). Based on the table (4-13) (5%) between the responses of the sample members and those who agree that the total number of **peer group** has an impact on perceived quality of service and positive feeling.

-

Table (4.14) Regression Weights for Relationship Between Hiding Behavior And ANTECEDENTS.

Relationship			Estimate	S.E.	C.R.	P
Perceived Service Quality Hiding behavior	<---	MATERIALISM	.030	.032	.957	.044
Perceived Service Quality Hiding behavior	<---	STRESS FEELING	.501	.053	9.46 3	0.00
Perceived Service	<---	CELEBRITIES	.037	.055	.667	.015

Quality Hiding behavior						
Perceived Service Quality Hiding behavior	<---	PEER GROUP	.128	.053	2.421	.015

Source: prepared by the researcher from data (2019).

- The estimate of the differences between the numbers of the sample in the study according to the initial term is less than the moral level (0.05). Based on the table (4.14) (5%) between the responses of the sample members and those who agree that the **materialism** has an impact on perceived quality of service and hiding behavior.

- The value of the estimate (estimate = 5, p> 0 .04) to indicate the differences between the numbers of the sample in the study according to the initial expression which is less than the moral level (0.05). Based on what is stated in Table (4-14) (5%) between the respondents' answers and those who agree that **stress** has an effect on perceived quality of service and hiding behavior.

- • The estimated value (0.037, p> 0.015) was used to indicate the difference between the numbers of the sample in the study according to the first term, which is less than the moral level (0.05). Based on the table (4-14) (5%) between the responses of the sample members and those who agree that the **celebrities** have an impact on perceived quality of service and hiding behavior.

- The value of the estimate (estimate = 128, p> 0.04) to indicate the differences between the numbers of the sample of the study according to the initial phrase which is less than the moral level (0.05) and depending on what is in table (4-14) (5%) between the responses of the sample members and those who agree

that the total of **peer Group** has an impact on perceived quality of service and hiding behavior.

- From this we conclude that the hypothesis of the second study, which stated "perceived quality of service, hiding behavior and positive feeling" has been achieved and for the benefit of the approvers.

-

Table (4.15) Summary of The Study Results

First Hypotheses	Partially Supported
Materialism has a positive relationship with CBB	supported
Negative Feeling has a positive influence on CBB	Not supported
Stress Feeling has a positive influence on CBB	supported
Self-esteem has a negative influence on CBB	Not supported
Celebrities has a positive influence on CBB	Supported
Peer Group has a positive influence on CBB	supported
Second Hypotheses	Partially Supported
SQ moderates the relation between materialism and positive feeling	supported
SQ moderates the relation between negative feeling and positive feeling	Not supported
SQ moderates the relation between stress and positive feeling	supported
SQ moderates the relation between self-esteem and positive feeling	Not supported
SQ moderates the relation between Celebrities and positive feeling	Supported

SQ moderates the relation between peer-group and positive feeling	supported
SQ moderates the relation between materialism and Hiding Behavior	supported
SQ moderates the relation between negative feeling and Hiding Behavior	Not supported
SQ moderates the relation between stress and Hiding Behavior	supported
SQ moderates the relation between self-esteem and Hiding Behavior	Not supported
SQ moderates the relation between Celebrities and Hiding Behavior	supported
SQ moderates the relation between peer-group and Hiding Behavior	Supported

Source: prepared by researcher from data (2019).

4.7. Summary of The Chapter

This chapter concerns with data analysis that was generated from to show the findings for testing the hypotheses of the study. For analyzing data different statistical systems and techniques were used. in addition to other techniques like data cleaning which used for detecting and removing errors and inconsistencies to improve the quality of data followed by the reliability to insure the goodness of measures for the study variables. Then, to identify the characteristics of all variables under study besides, responding firms and respondents' descriptive statistical techniques were used. Furthermore, Person's correlations were also

implemented to identify the interrelationships among all the variables. Finally, path analysis in AMOS was used to test the direct and indirect effects for testing the hypotheses. The coming chapter presents discussion and conclusion which includes results, implications and limitations of the study.

CHAPTER FIVE

DISCUSSION AND CONCULUSION

5.1 Chapter Overview

Following the previous chapter from the data analysis a conclusion emerged from research findings followed by discussion of result in the light of prior researches. The implications of findings for management and theory are developed. Next, an overall conclusion of the study is made. Finally, limitation for the research was identified.

5.2 Recapitulation of the Study Findings

This study aims to investigate and examine the antecedents of compulsive buying behavior (Materialism, stress, negative feeling, celebrities' self-esteem and peer group) and the moderating role of perceived service quality in Sudanese markets. the target population are the shopping malls visitors and consumers. Alwaha mall, Afra and City Plaza (cosmetics stores, new-fashion clothes store, hypermarkets and sooqs) in Khartoum. The dimensions of perceived service quality are (responsiveness, reliability, tangibility, empathy and assurance). The descriptive analytical methodology was followed to examine two main hypotheses, and answer the Three research questions:

- Is there any relationship between antecedents and compulsive buying behavior?
- Does Perceived Service Quality moderate the relationship between antecedents and the buying behavior?

- What is the level of compulsive buying behavior among Sudanese? What is level of perceived service quality?

395 self-administrated questionnaires were distributed among Sudanese markets and shopping malls visitors and consumers. The response rate was 85%. Collected data was analyzed using SPSS V25 and AMOS v25, the result of analysis

shown that antecedents peer group stress, celebrities and Materialism are having the vigorous effect on compulsive buying behavior. Also, result have shown that perceived service quality was able to moderate the relation between antecedents and compulsive buying behavior. Marketers can use the outcome of this study to develop service value for their consumers, Psychologist can use this study in order to eliminate buying addition among buyers. Other researchers can also benefit from the development model.

5.3 Discussion

This study explored the relationship between antecedents and compulsive buying behavior and investigates the moderating role of perceived Service Quality between antecedents and compulsive buying behavior in Sudanese market. The independent variables taking into account all six dimensions (Materialism, stress, negative feeling, self-esteem, celebrities and peer group) compulsive buying behavior dimensions considered in this study were (hiding behavior and positive feeling), while expletory factor analysis EFA has necessitated deleting two items from antecedents of compulsive buying behavior, the antecedents reduced to **Materialism, stress, celebrities and peer group** but it might be different in another cultural environment. Confirmatory factor analysis (CFA) confirmed the factor structure we extracted in the (EFA).

test results discussion and result comparison with prior researches results will be shown in this section following the sequence for hypotheses H1 and H2

H1: the positive correlation between antecedents and the compulsive buying behavior

There is positive relationship between antecedents and compulsive buying behavior, results shown that the antecedents "Peer Group, stress, celebrities and materialism." were positively correlated with CBB (hiding behavior and positive feeling), this result was similar to Saman Attiq, 2018 and Tahir Islam,2017.

5.3.1 Justification for the positive correlation between independent and dependents variables

Peer group: Tahir Islam,2017 Comprehensive social assessment theory indicates that people evaluate themselves against others by means of their personal material possessions to establish their social standing (Motl et al., 2001, 2002). High peer group pressure increases materialism among young adults (Benmoyal Bouzaglo & Moschis, 2010).

Stress: Saman Attiq,2018 mentioned that et al. (1988) proposed that compulsive buyers engage in this behavior to reduce their stress. Stress acts as a trigger where compulsive buyers get an emotional need to reduce their tension by buying things.

Aadel A. Darrata,2016, Consumer anxiety relates positively to consumer, escapism Escapism relates positively to compulsive buying.

Todd Weaver,2011 Eliminating the stress and restoring equilibrium requires a behavioral or cognitive readjustment by the individual aimed at establishing a new balance (Gerveld and

Dykstra, 1993).

Celebrities: Tahir Islam,2017 celebrities have more effect on building materialistic values in Pakistan. Youth always have idealized media celebrities
so, celebrities in advertising appeal to customers as well as those who have never tried the brand
(Yue & Cheung, 2000) Celebrity worship is a global phenomenon among adolescents, and young consumers and celebrity ad-miration is common in communities of youth around the world

(Atkin & Block, 1983), Consumers often admire celebrities and trust them to be a credible source of information which gives them power as product spokespersons.

Materialism: Saman Attiq,2018

Tahir Islam, 2017el al mentioned that People with high materialistic values desire higher levels of status and want to possess expensive things as a way to help them
achieve major life goals (Halliwell & Dittmar, 2004; Halliwell et al., 2005).
S.Todd Weaver,2011 el al mentioned that Materialists are typically unhappier and more dissatisfied with life than non-materialists (Ryan and Dziurawiec)

While two dimensions of antecedents were not supported, findings confirm that both negative feeling and self-esteem are negatively correlated to CBB (hiding behavior and positive feeling) which is different result to Saman Attiq 2018 and Tahir Islam2017, Arnold Japutra 2017

5.3.2 Justification for the negative correlation between independent and dependents variables

Negative feelings: negative mood, such as an argument or

frustration do not trigger an urge to shop. Euphoria or relief from negative emotions is not the most common psychological determinant of compulsive buying.

Self-esteem: Sudanese Compulsive buyers do not try to enhance or uplift their self-esteem through buying items.

(He et al., 2018; Yurchisin & Johnson, 2004, Moon et al., 2015) self-esteem is a strong predictor of compulsive buying. In a recent study; Compulsive buying is associated with lower levels of self-esteem

H2: the moderating role of perceived service quality

The findings confirm that perceived service quality moderated the relation between the antecedents "Peer Group, stress, celebrities and materialism." and dimensions of CBB (hiding behavior and positive feeling) which is similar to (Franke, 2008; Clark & Hartline, 2009) said "SQ has direct influence on customer buying decision and satisfaction". While there was no moderating role between antecedents (self-esteem and negative feeling) and (hiding behavior and negative feeling).This result is similar to (albert 1998) customers may not necessarily buy the highest quality service that is convenience that the price and availability may enhance satisfaction without affecting the customer perceptions of service quality.

5.4 The Implications

5.4.1 Theoretical implication

This study revised the compulsive buying scale by accounting for methodological, cultural and demographic differences. We used escape theory to group individuals into a spectrum ranging from compulsive to non-compulsive. This study tests antecedents of this buying behavior, which is a major contribution in the literature that specifies important insights in the theory of CBB. This will add to and refine current understanding of compulsive buying as an addictive behavior and the rate of compulsive buying in Sudanese market. Results of Previous study which uses escape theory, Saman Attiq 2018

First, it is the first study to test the interrelationships between the social and marketing factors, CBB, and materialism among young adults in Pakistan with majority Islamic influence empirically.

Second, sociological factors are the key constructs for the development of CB,
Third, few studies have observed a mediating role of the materialism between the contextual factors and CB.

5.4.2 Practical implication

for policymakers and market managers and decision makers, the current research outputs give further insight into guidelines to minimalize CBB among buyers epically young adults, young Sudanese adults are currently influencing by peer group and celebrities, Policy makers may wish to issue drastic measures to restrain this growing trend among buyers. As a matter of fact, the policy makers and parents must share the oversight responsibility. They must give effective solution to eliminate the comparison among peer groups. Parents should teach their offspring the Islamic values Government should start a periodic control

program to monitor buying-flow in Sudanese malls and market place.

5.5 Limitations and Direction for Future Studies

This study has several limitations:

First, we gathered data from respondents who were looking for their needs in markets place and ignored online buyers who use social media (WhatsApp, Facebook, Instagram and twitter). The results of this model could be different in other online services, Future researchers should retest the conceptual model and validate it in other contexts as well.

Second, the data was collected from the capital territory of Sudan (Khartoum) where young people are more affected by contextual factors (peer group, media celebrity, stress and they are more materialistic) as compared to the rural area residents. Thus, the study findings are
limited to metropolitan cities. Future research should focus on a large sample size and collecting data from across Sudan.
Third, this study used cross-sectional data. Behavior changes over time, and compulsive buying behavior is not unidimensional construct, so a longitudinal study could help to clarify this concept.

5.6 Conclusion

To understand compulsive buying behavior in emerging economy, this study empirically investigated the antecedents and consequences of CBB in a shopping mall and Sudanese markets sample. Materialism, celebrities, stress and peer group were major triggers for compulsive buyers and the consumers who purchase compulsively feel an emotional lift right after shopping. The most effective antecedent is peer group, the Sudanese compulsive buying level is strong, the mean value is 2 (2>3) while the level of PSQ moderation has reasonable relationship as well. PSQ moderated the relation between antecedents and CBB.

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Appendix A. Questionnaire Judgment Committee:

ID	Name	Academic Degree
1	Siddig Balal	Ph.D. Associated Professor
2	Abdalsalam Adam	Ph.D. Associated Professor
3	Maisoon Ali Abdelkaeem	Ph.D. Associated Professor

Sudan University for Science & Technology

Faculty of Graduate Studies

A supplementary research QUESTIONNAIRE for M.Sc. in Quality Management and Excellence

Title:

Antecedents of compulsive buying behavior and the mediating role of perceived service quality in SUDAN 2019

The purpose of the questionnaire is to gather data about compulsive buying in the Sudanese community. This study is purely academic consequently your genuine, open and well-timed response is crucial for the success of this research. Kindly, respond to each item very carefully.

General instruction

Kindly, Don't write your name and tick (√) sign in the appropriate option that suits your case.

For any query please don't hesitate to contact me on:

Ms. Areag Tagelsir Ebaid Mohammed, TEL No.: 0909005590, SKYPE: Sharrylove11

☺ **Thanks in Advance** ☺

This questionnaire contains a series of multiple-choice questions. There is space for more general comments at the end of the questionnaire.

SECTION ONE: GENERAL PROFILE

Gender: Male ☐ Female ☐

Marital Status: Single ☐ Married ☐ Other ☐

Age Group: Less Than 25 ☐ 26-35 ☐ 36-45 ☐ 46-55 ☐ 55+ ☐

Occupation: Self-Employed ☐ Student ☐ Employee ☐ Manager ☐ House Wife

Other ☐ Please Mention………..)

Educational Level: Undergraduate ☐ Graduate ☐ Postgraduate ☐

Monthly Income: Less Than 3000 ☐ 3001-10000 ☐ 10001-70000 ☐ 70001+ ☐

SECTION TWO:

Part I: INSTRUMENT for CBB, its antecedents and its consequences

PART II: INSTUMENT for mediating role of SQ

PART I one: antecedents of compulsive buying and its consequences					
Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	1-5	1-5	1-5	1-5	1-5
1. MATERIALISM					
1. I feel that you have all the things I really need to enjoy life.					
2. I feel pleased about having a lot of luxury in my life.					
3. i feel good about acquiring material possessions as an achievement in life.					
4. i think that your life will be better if i owned certain things that i don't have now.					
5. i feel about people who own expensive homes, cars, and clothes that they are happy and successful					

6. i feel much pleasure when you start buying things					
7. i feel good about things you own?					
8. i feel pleased about owning things that impress people?					
9. i feel that you approach your life in terms of your life possessions (i.e., buying and owning things)					
2. Negative Feeling	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. "Having a bad day can lead me to go on a buying spree"					
2. When I feel bad, I go shopping					
3. Stress	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I found it hard to wind down until I buy something					
2. I tended to over-react to situations then I go to shop					
3. I felt that I was using a lot of nervous energy then I go shopping to release it					
4. I found myself getting agitated until I buy something					
5. I found it difficult to relax until I buy something					
6. I was intolerant of anything that kept me away from shopping					
7. I felt that I was rather touchy (moody) so I like to shop					
4. Self esteem	Strongly	Disagree	Neutral	Agree	Strongly

	Disagree				Agree
1. I feel am respectful person					
2. If my self-esteem were higher, I would not buy as much					
5. Celebrities	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Media Celebrities influence me looking good and appearing attractive to others."					
2. Media Celebrities influence me looking good					
3. Media Celebrities influence me appearing attractive to others."					
6. Peer group	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. i ask your friends for advice about buying things. 2. my friends talk about buying things.					
3. my friends talk about things you saw or heard advertised.					
4. You wonder what your friends would think when you were buying things for yourself.					
5. my friends ask you for advice about buying things.					
6. my friends tell you what things you should or should not buy.					
7. i go shopping with your friends.					
8. i try to impress your friends.					
7. Compulsive Buying Behavior	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

6. If I have any money left at the end of the pay period, I just have to spend it					
7. Felt others will be horrified if they knew my spending habits					
8. Bought things even though I couldn't afford it					
9. Bought something in order to make my-self feel better					
10. Felt anxious in the days I didn't go shopping					
8. POSITIVE FEELING	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4. "I find buying very pleasurable,"					
5. "The process of buying provides me with a lot of gratification (at least temporarily),"					
6. "I feel excited when I go on a buying spree."					
9. HIDING BEHAVIOR	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4. "I sneak new purchases into where I live,"					
5. "I hide the things I buy from others (e.g., family, roommate, or partner),"					
6. "I have lied about how much I buy."					

PART II: Mediating Role of Perceived SQ					
10. PERCEIVED SERVICE QUALITY	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1	This store offers wide range of products.					
2	This store offers products of different quality					
3	This store offers different brands of products					
4	This store always has enough stocks of products I purchase.					
5	This shop offers products of different price range.					
6	This store has modern-looking equipment and fixtures.					
7	This store has clean, attractive, and convenient public areas (restrooms, fitting rooms).					
8	The store layout at this store makes it easy for customers to find what they need.					
9	The store layout at this store makes it easy for customers to move around in the store					
10	Employees in this store are consistently courteous with customers.					
11	Employees in this store have the knowledge to answer customers' questions.					
12	Employees in this store are never too busy to respond to customer's requests					
13	The behavior of employees in this store instill confidence in customers.					
14	This store provides plenty of convenient parking for customers.					

Any comment?

جامعة السودان للعلوم والتكنولوجيا
كلية الدراسات العليا

استبيان لبحث تكميلي لنيل درجة الماجستير في إدارة الجودة الشاملة والامتياز
تحت عنوان:
"عوامل الشراء القهري والدور المعدل لجودة الخدمة المُدركة"المحسوسة" في السودان
لعام 2018

الغرض من الاستبيان هو جمع بيانات حول سلوك الشراء القهري في المجتمع السوداني. هذه
الدراسة أكاديمية بحتة وبالتالي فإن استجابتك الواضحة و الدقيقة والسريعة في الوقت المناسب
أمر مهم لنجاح هذا البحث. يرجى الرد على كل فقرة من الاستبيان بعناية فائقة.
تعليمات عامة
يُرجى عدم كتابة اسمك , و ضَع علامة (√) في الخيار المناسب الذي يناسب حالتك.
لأي استفسار ، لا تتردد في الاتصال بي على:
الآنسة / اريج تاج السر عبيد محمد ، رقم الهاتف: 0909005590 ،
SKYPE: SHARRYLOVE11

☺ شكراً لكم مقدماً ☺

يحتوي هذا الاستبيان على سلسلة من الأسئلة متعددة الخيارات. هناك مساحة لمزيد من التعليقات العامة في نهاية الاستبيان.
القسم الأول: لمحة عامة
الجنس: ذكر( )   أنثى ( )

الحالة الاجتماعية: أعزب( )   متزوج ( )   غير ذلك ( )
الفئة العمرية: أقل من 25( )   26-35( )   36-45 ( )   46-55 ( )   55+( )
المهنة: صاحب العمل( )   موظف( )   أعمال حرة( )   ربة منزل( )   طالب( )   عاطل( )
المستوى التعليمي: غير متخرج ( )   خريج( )   خريج الدراسات العليا( )
الدخل الشهري: أقل من 3000( )   3001-10000( )   10001-70000 ( )   70001+( )
القسم الثاني:
الجزء الأول: أداة قياس سلوك الشراء القهري و عوامله وعواقبه
الجزء الثاني: أداة قياس الدور المعدل لجودة الخدمة المُدركة "المحسوسة"

لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	الجزء الأول: أداة قياس سلوك الشراء القهري و عوامله وعواقبه
					1. المادية
لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	الأسئلة
١-٥	١-٥	١-٥	١-٥	١-٥	
					1. أنا أشعر بأن لدي كل الأشياء التي أحتاج إليها حقا للاستمتاع بالحياة.
					2. أنا أشعر بالسعادة لوجود الكثير من الترف في حياتي.
					3. أنا أشعر بالرضا و الانجاز عند امتلاك الممتلكات المادية.
					4. حياتي ستكون أفضل إذا أمتلكت أشياء ليست لدي الآن.
					5. أنا أشعر بأن الناس الذين يمتلكون منازل وسيارات وملابس باهظة الثمن بأنهم سعداء وناجحون
					6. أنا أشعر بالسعادة عندما أبدأ في شراء الأشياء
					7. أنا أشعر بالرضا عن الأشياء التي أمتلكها؟
					8. أنا أشعر بالرضا عند امتلاك الأشياء التي تثير إعجاب الناس؟
					9. أنا أشعر بأني أعيش حياتي و أقترب منها من خلال ممتلكاتي (مثل شراء وامتلاك الأشياء)
لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	**2الشعور السلبي**
					1. إن قضاء يوم سيئ يمكن أن يدفعني للاستمرار في عملية شراء
					2. عندما اشعر بالضيق افكر بالذهاب للتسوق
لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	**3الإجهاد**
					1. لا أشعر بالراحه النفسيه الي ان اشتري شيئاً
					2. أنا ابالغ في ردود أفعالي في مختلف الأمور التي تواجهني

لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	
					ثم أذهب للتسوق
					3. أنا أشعر أنني كنت أستخدم الكثير من الطاقة العصبية ثم أذهب للتسوق لإطلاقها
					4. أنا أجد نفسي مضطربًا إلي أن أشتري شيئًا
					5. أنا أجد صعوبة في الاسترخاء حتى أشتري شيئا
					6. أنا غير متسامحة مع أي شيء يبعدني عن التسوق
					7.أنا أشعر بأنني شخص حساس (مزاجي) لذا أحب التسوق
لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	4احترام الذات
					1. انا اشعر باني شخص جدير بالاحترام
					2. إذا كان تقديري للذات أعلى ، فإنني لن أشتري الكثير
لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	5 تاثير مشاهير الاعلام
					1.إن مشاهير الإعلام يؤثرون علي
					2. اشتري مثل مشاهير الاعلام حتى يكون مظهري جيدًا
					3. اشتري مثل مشاهير الاعلام حتى أبدو جذاب للآخرين
لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	6مجموعة الأقران
					1. أنا أسأل أصدقائي للحصول على المشورة حول شراء الأشياء.
					2. أنا وأصدقائي نتحدث عن شراء الأشياء.
					3. أنا أتساءل عما يفكر به أصدقائي عندما أشتري أشياء لنفسي
					4. يطلب مني أصدقائي النصيحة حول شراء الأشياء.
					5. يخبرني أصدقائي بأشياء يجب علي أو لا يجب علي شراؤها.
					6. أذهب للتسوق مع أصدقائي.
					7. أنا أحاول إبهار أصدقائي.
لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	7سلوك الشراء القهري
					1. انا انفق جميع ما لدي من الاموال في فتره التسوق
					2. سوف يشعر الآخرون بالرعب إذا عرفوا عادات إنفاقي
					3. أنا اشترى الأشياء على الرغم من عدم قدرتي علي تحمل تكلفتها
					4.أنا اشترى الاشياء لاشعر باني الافضل
					5. أنا أشعر بالقلق في الأيام التي لم أذهب فيها للتسوق
لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	8الشعور الإيجابي
					1. أجد عملية الشراء شيئا ممتع للغاية

لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	
					2. عملية الشراء توفر لي الكثير من الإشباع أو الرضي (على الأقل مؤقتًا)
					3. أشعر بالإثارة عندما أذهب في جولة شراء
لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	9سلوك الإخفاء
					1. أقوم باخفاء مشترياتي الجديدة في المكان الذي أعيش فيه
					2. أخفي الأشياء التي أشتريها عن الآخرين (العائلة أو زميل السكن أو الشريك)
					3. لقد كذبت بشأن كم أشتري

لا أوافق بشدة	لا أوافق	محايد	أوافق	أوافق بشدة	الجزء الثاني:أداه قياس جودة الخدمات المدركة(المحسوسة) 10الدور المعدل لجودة الخدمات المدركة
					أسئلة
٥-١	٥-١	٥-١	٥-١	٥-١	
					1. هذا المتجر يعرض مجموعه كبيره من المنتجات (السلع الشرائية)
					2. هذا المتجر يعرض منتجات مختلفة الجودة
					3. هذا المتجر يعرض منتجات ذات علامات تجارية متنوعة
					4. هذا المتجر دائما يحتوي علي مخزون كافي من المنتجات التي اشتريها
					5. هذا المتجر يعرض منتجات ذات أسعار متباينة
					6. هذا المتجر يحتوي علي معدات و أثاثات حديثة و أنيقة
					7. هذا المتجر يحتوي علي مساحات عامة نظيفة و جذابة و مريحة (غرف استراحة و غرف قياس الملابس)
					8. تخطيط و تصميم هذا المتجر يُسهِل حركة الزبائن داخلة
					9. مُوظفي هذا المتجر لطيفين بشكل مستمر مع الزبائن
					10. مُوظفي هذا المتجر لديهم المعرفة للرد علي استفسارات الزبائن
					11. مُوظفي هذا المتجر يستجيبون بسرعة لطلبات الزبائن
					12. سلوك مُوظفي هذا المتجر ,يغرس ثقة الزبون فيهم

هل لديك أي تعليق؟

Appendix D **KMO and Bartlett's Test**		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.916
Bartlett's Test of Sphericity	Approx. Chi-Square	3044.479
	df	136
	Sig.	.000

APPENDIX E
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings [a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.679	35.154	35.154	6.679	35.154	35.154	4.728
2	2.658	13.990	49.144	2.658	13.990	49.144	4.710
3	1.892	9.958	59.102	1.892	9.958	59.102	4.656
4	1.788	9.411	68.513	1.788	9.411	68.513	3.426
5	.722	3.800	72.313				
6	.606	3.189	75.502				
7	.598	3.148	78.649				
8	.518	2.725	81.374				
9	.482	2.537	83.911				
10	.420	2.210	86.121				
11	.407	2.142	88.263				

APPENDIX F Pattern Matrix a	Component			
	1	2	3	4
Materialism 1				.886
Materialism 2				.922
Materialism 3				.847
Materialism 4				.546
Stress1		.744		
Stress2		.861		
Stress3		.850		
Stress4		.821		
Stress5		.721		
Celebrities1			.760	
Celebrities2			.822	
Celebrities3			.839	
Peer group1	.816			
Peer group2	.839			
Peer group3	.860			
Peer group4	.832			
Peer group5	.749			

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

APPENDIX G

COMMUNALITIES

	Initial	Extraction
Materialism 1	1.000	.657
Materialism 2	1.000	.676
Materialism 3	1.000	.557
Materialism 4	1.000	.546
Stress1	1.000	.571
Stress2	1.000	.671
Stress3	1.000	.647
Stress4	1.000	.582
Stress5	1.000	.657
Celebrities1	1.000	.698
Celebrities2	1.000	.677
Celebrities3	1.000	.726
Peer group1	1.000	.642
Peer group2	1.000	.653
Peer group3	1.000	.549
Peer group4	1.000	.712
Peer group5	1.000	.620
Extraction Method: Principal Component Analysis.		