



UNDERSTANDING THE COGNITIVE DISSONANCE ON WOMEN POST-PURCHASE BEHAVIOR

İbrahim Sani MERT

Antalya Bilim University

Rihab GLAI

Antalya Bilim University

Cem ŞEN

Antalya Bilim University

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Abstract:

Consumer behavior study has become relevant in the present marketing and sociology studies. Several characteristics, specificities, and factors influence the customer, especially the woman in her decision-making process, preferences, buying behavior, the products she buys, and the stores or retailers where she goes. In addition, the cognitive dissonance theory is mostly used to explain consumer behavior, focusing on the dilemmas faced during various stages of purchasing behavior. Hence, the study aims to investigate the state of cognitive dissonance after a buying decision was made for Tunisian women. Specifically, it provides an overview of the decision-making patterns of women and the stage of their reaction after the buying process according to their psychographic, socioeconomic, and behavioral characteristics. For this research, a quantitative survey was used as a method to collect primary data in Tunisia from 402 women. This questionnaire was conducted among the women who had recently purchased a luxury apparel product. A multidimensional scale was used to measure the magnitude of dissonance for females, besides two other constructs were additionally added which are the impulsive buying and the purchasing decision involvement. The results show that there is no significant difference in the levels of cognitive dissonance due to demographic factors such as age, marital status, and employee status for all women, while it had a positive bearing on emotional dissonance amongst all women. There is also no significant effect for the impulse buying and the purchase decision on post-purchase dissonance. The findings of this research indicate that most of the women were satisfied with their last purchases and therefore, the level of cognitive dissonance is low. Hence, one key aim of this research is to demonstrate the harmony within cognitive and behavioral systems that can be adjudged as a part of the human condition.

Keywords:

Cognitive dissonance, women, consumer behavior, post-purchase, impulse buying, and purchase decision

1. Introduction

Consumer behavior is one of the marketing concepts that have been studied the most. The more the firm understands its customers the more likely it will become marketplace effective. Consumer behavior awareness would be of enormous help in the preparation and execution of marketing strategies. The marketer has to understand how the consumers think, feel, and choose from alternatives such as goods, and brands, and how consumers are affected by their environment, comparison groups, and economic, financial, personal, and psychological influences. Consumer behavior has a role to play in several marketing-critical things. It also ultimately resumes the appraisal of an item by a customer and represents positive, and negative feelings and patterns of behavior, which can be affected by several additional functions. Furthermore, psychologists and marketers, for instance (Oliver, 2010; Hunt, Geiger-Oneto, & Varca, 2012), recognize that the attitudes of consumers are the mixtures of behaviors, beliefs, and emotions that result in favorable buying responses.

In this regard, one of the most widely researched phenomena in the history of psychology is cognitive dissonance, which defines a psychological state in which the perception of an individual's beliefs, attitudes, and behaviors are opposed to each other (Festinger, 1957). The Cognitive Dissonance Theory (CDT) is important in the field of psychology and marketing; indeed, many marketers have an interest in studying the post-purchase behavior of consumers such as (Mugge, Schifferstein, & Schoormans, 2010; Hasan and Nasreen, 2012; Bolia et al., 2016). The interaction of cognitive dissonance and consumer behavior has been the focus of valuable research. Moreover, post-purchase dissonance is also a key concept, a situation of psychological discomfort in which the consumer finds himself after having made a purchase (Mao and Oppewal, 2010). This post-purchase dissonance can appear for example when an individual thinks he/she has made the wrong choice by having finally bought a product that only responds imperfectly to his/her need or when he/she regrets having been influenced by a seller who is oriented towards a higher quality and more expensive product (Telci, Maden, & Kantur, 2011).

In a marketing context, cognitive dissonance is a situation of psychological or mental discomfort that the consumer can feel about a purchase or an advertisement. In the case of a purchase, the phenomenon of dissonance can result in a form of regret or even resentment towards the brand or the seller that can have consequences in terms of loyalty or reputation (Tsiros and Mittal, 2000). Accordingly, the interest to address Festinger's theory within a post-purchase context has become universally embraced by marketing practitioners, to the point where terms such as 'buyer's remorse' (Sigall, 2017) and 'consumer regret' (Tzeng and Shiu, 2019; Charles, 2014) have now become common parts of the marketer's vernacular. Indeed, we are considering cognitive dissonance as a unifying theory for marketing when an uncomfortable state arises from the conflict between two entities (Festinger, 1957). This can help marketers better understand the confusion of customers while facing the conflict of information before purchase decision-making.

The post-purchase dissonance must be taken into account in the context of the loyalty problems of a product because it can cause more or less conscious feelings of resentment towards this brand. It is possible to prevent or limit post-purchase dissonance for example, by advocating with sales teams a real sale advice tailored to needs or by taking actions intended to reassure consumers that they have made the right decision purchase (Connolly and Zeelenberg, 2002). The consumer can for example be comforted by a few words from the seller after the decision has been made or by subsequent messages coming to congratulate and reinforce the customer's decision. Unconsciously, the consumer can sometimes seek to avoid a state of dissonance post-purchase and cause a bias of rationalization (Mao and Oppewal, 2010).

The theory of cognitive dissonance was essentially used to study post-purchase behavior. An empirical study in the context of apparel products from 402 respondents shows that this psychological discomfort can also occur following exposure to inconsistent information before purchase and that it affects reactions, attitudes, and purchase intention. This paper aims to present an empirical analysis of the impact on the three major sources after purchase at dissonance rates. Thus, the article specifically discusses the level of dissonance and emotional behavior after purchasing among Tunisian women. The goal is to ensure that the marketing industry has a way of understanding women's attitudes and behavior among post-commerce dissonance and giving some recommendations to reduce this phenomenon.

2. Literature Review

2.1. Cognitive Dissonance Theory (CDT)

2.1.1. Theoretical Framework of the CDT

The CDT has been performed and proposed since 1957 by Leon Festinger. Other researchers also have carried out similar studies such as Brehm et al (1964), Oshikawa (1968), Hunt (1970), Cummings and Venkatesan (1976), Aronson (1992), Harmon-Jones and Mills (1999), Sweeney et al. (2000), Soutar and Sweeney (2003), O'Neill & Palmer (2004), Egan et al. (2007), Young (2011), Telci et al. (2011), Powers and Jack (2013), Rohde et al. (2016). However, many other researchers tried to refuse and modify the CDT like Chapanis and Chapanis (1964), and Rosenberg (1965). Indeed, some other researchers like added new concepts to this theory such as human beliefs, behavior, and self-esteem, and the term self-awareness, then the concept of unwanted consequence by Cooper and Fazio (1984), and moral integrity by Steele (1988). Hence, CDT is one of the psychology theories most widely debated in history, several important research studies include the idea of cognitive dissonance and its effect on consumer behavior.

According to Festinger (1957), cognitive dissonance refers to a sense of mental distress when people are conscious of differences in their attitudes and actions or multiple attitudes. In addition, he demonstrates that people are motivated, either by streamlining a belief or a behavior that diminishes its value or by finding knowledge selectively that reinforces their belief or behavior, to reduce or prevent dissonance. Furthermore, cognitive dissonance constitutes a discrepancy between individual information and a negative personal state or dissonance that motivates a person to search out and establish a strategy to mitigate that state (Festinger, 1957; Cooper and Fazio, 1984; Elliot and Devine, 1994; Oliver, 1997; Sweeney, Hausknecht, & Soutar, 2000).

Although cognitive dissonance is a relevant phenomenon in marketing for instance, Menasco and Hawkins (1978) wrote about cognitive dissonance and the marketing of services and they have suggested advertisers that would help consumers minimize cognitive dissonance, provide good protections or assurances, improve services, and make comprehensive brochures accessible on how to correctly use their goods. Therefore, other researchers have used CDT extensively in the marketing field to tackle consumers' behavior after buying in different stages as to how it was managed or minimized (Hunt, 1970; Cummings and Venkatesan, 1976; Soutar and Sweeney, 2003; Cheah, Phau, & Liang, 2015). Researchers tried to design measures to deal with cognitive dissonance (Bell, 1967; Mattock and Hawkins, 1972; Hunt, 1970; Korgaonkar and Moschis, 1982), and the measure with a greater number of items was developed by reviewing literature and proper empiric validation (Montgomery and Barnes, 1993; Sweeney, Hausknecht, & Soutar, 2000).

2.1.2. The Cognitive Dissonance and Demographic Factors

Customer engagement and retention strategies are an imperative part of any organization and dissonance could put a strong motivator for customers to make their purchases in slightly different ways that mostly lead to a loss (Jamwal and Pandey, 2016). The customer is constantly influenced by the pre-purchase preferences and the advantages provided by the former rival, so he is hesitant to reconsider the purchase, whether it was a smart or pathetic option. After buying a product, consumers usually think of their advantages and disadvantages and they are also forced to repeatedly think of choices (Pandey and Jamwal, 2015). People have differential dissonance risks, as well as different anxiety thresholds, consumer dissonance does not always occur. However, since the consumer mind largely analyses all this information after each purchase, many researchers (Oliver, 1997; Sweeney and Soutar, 2003; Jamwal and Pandey, 2016) measured the cognitive dissonance with some demographics such as age and gender. Sweeney, Hausknecht, & Soutar (2000) developed the scale and collaborated with two consumer classes. They found that there are three categories of cognitive dissonance, at least in the markets for consumer goods: "strong dissent", "low dissonance" and "needing to buy". Firstly, their study reveals that there is dissonance in a significant proportion of customers (27% and 40% in 2 product groups examined in the study). Young consumers are more likely to experience a high degree of dissonance because they are typically more active and have higher expectations. By using the same scale, Soutar and Sweeney (2003) concluded that older consumers in the low dissonance group were more common, while the high dissonance group had relatively younger consumers. Further, there were no major differences between genders, although there were proportionately more women in the low dissonance and more males in the high dissonance group. In the article "Are There Cognitive Dissonance Segments?", the authors also concluded that consumers are now more likely to encounter dissonance and to have a strong call for management attention to dissonance given that customer capability, in particular the young consumers, has greater participation and greater service demands, including that of retail stores. In another study by Jamwal and Pandey (2016), gender showed a significant relationship with the various dissonance groups identified, and females were more prevalent in the high dissonance group category as compared to males. Therefore, the first hypothesis is developed as the following:

H1: There is a significant difference in the magnitude of cognitive dissonance due to age groups, marital status, and employee status.

2.1.3. Previous Measurement of Cognitive Dissonance

Montgomery and Barnes (1993) established a ten-piece metric and checked it by testing its meaning, validity, and quality of the material, according to them, they gave "POSTDIS" as a name to the scale and it was explained by two main factors "correctness of decision" (an individual's concern if he has taken the right decision and not got influenced by the salesperson) and "Support" (An individual looking for reinforcing its decision by supportive

information and actions in favor of the decision). Oliver (1997) has argued that a sound dissonance scale needs to be established for consumption study. Indeed, the writer concluded a chapter in his book "Satisfaction: A Behavioral Perspective on the Customer" about cognitive dissonance with the hope "that the construction, validation, and dissemination of comprehensive dissonance measures will be forthcoming" (Oliver, 1997).

However, many other researchers (Sweeney et al., 2000; O'Neill and Palmer, 2004; Bose and Sarker, 2012; Bolia et al., 2016) did not use the same scale. Hence, the multidimensional scale is planned to tackle this need and the creation of scales starts with an analysis of the context of cognitive dissonance. It included cognitive measures (e.g., emotional, wisdom of purchase, or concern over deal) and psychological measures (e.g., fear, relaxation, and feelings) as well as behavioral measures intended to assess dissonance reduction. Therefore, the marketers filled this void with a multidimensional scale and they motioned at the beginning of the article "The concept of cognitive dissonance has been discussed widely in the consumer behavior literature, yet paradoxically, there is no well-established scale to measure it" (Sweeney et al., 2000, p. 369). This scale would quantify dissonance and resolve some significant management problems, such as whether all consumers are in dissonance or whether all consumers encounter dissonance in the same fashion. They established a multi-dimensional scale concerning the cognitive dissonance after purchasing based on 22 items and consisting of three dimensions, which are "Emotional", "Wisdom of Purchase" and "Concern over Deal". Many emotive elements reflecting the emotional dimension of dissonance contribute to an unpleasant, irritated, unhappy, and depressed nature of pleasure. Some objects reflect the higher end of angry, excited, and annoyed dimensions. Furthermore, cognitive objects relate to the feelings surrounding the wisdom of purchasing decisions. Lastly, concern over the deal is mostly related to the salesperson. The emotional dimension (15 items) reflects psychological discomfort after the purchase decision, the wisdom of purchasing (4 items) dimension represents cognitive uncomfortable actions as regards the need to purchase or the suitability for option among other alternatives, and the concern over deal (3 items) dimension is mostly related to the impact of salesmen on the purchasing decision.

2.1.2.1. The emotional nature of Cognitive Dissonance

The theory of cognitive dissonance was formulated during the rise of cognitive psychology, which evaded the role of emotions for many years. Indeed, the literature on cognitive dissonance is thus tainted by a paradox, and Festinger (1957) never made it clear since he defined whether the dissonance was cognitive or emotional in nature. Many other researchers (Cooper and Fazio, 1984; Joule, Mugny, & Perez, 1988; Elliott and Devine, 1994) have focused on this paradox which can be resolved by examining the terminology used to describe the process of cognitive dissonance which seems to include 1) a cognitive dimension corresponding to the individual's awareness of inconsistent relevant cognitions and 2) a dimension emotional corresponding to the resulting anxiety-provoking psychological discomfort. Thus, the cognitive dissonance would not necessarily be a state of uncomfortable tension, but also a state of excitement capable of being reinterpreted in many ways (Martinie and Joule, 2004). For this to be emotion there must be a conjunction of physiological, behavioral, expressive, neurological, and subjective processes (Derbaix and Poncin, 2005). Similarly, recent work on this psychological discomfort arising from the awakening of dissonance is also a non-specific nature in marketing, which may encourage the person to impute what he feels to causes other than the original inconsistency (Vaidis and Bran, 2019). In another perspective, several researchers have for instance considered guilt (Wallace et al., 2011), and surprise (Noordewier and Breugelmans, 2013), the most relevant predictor of dissonance effects. Finally, Vaidis and Bran (2019) in their recent study have declared that while these contradictory views coexist in the literature, the essence and specificity of cognitive dissonance have not yet been addressed explicitly. Overall, concentrating on one particular effect or on a cocktail of effects to capture the essence of cognitive dissonance appears inappropriate, depending on the variety of specific emotions examined (Vaidis and Bran, 2019). From the above review, the following hypothesis could be developed:

H2: There is a high level of dissonance for women regarding their emotions.

2.1.2.2. Wisdom of Purchase

The concept of the wisdom of purchase (Sweeney, Hausknecht, & Soutar, 2000) has been described as "a person who has recognized that they may have not needed or selected the appropriate product after the purchase". This aspect is consistent with the complexity of the buying decision mentioned by many other authors. For instance, Kassarian and Cohen (1965) noted that a person often faces uncertainty about his decision, even after a decision is made. That is, the complexity of the decision represents the positive features of the alternatives rejected compared to

the negative features of the alternatives selected, leading to a reasoning contradiction between cognitive elements (Festinger 1957). In addition, Kotler and Keller (2012) clarify that purchasing choices are the way people, groups, or organizations pick, purchase, and use items, services, ideas, and experiences to meet their needs or desires. However, consumers may not be aware of the reasons for their preferences or, in some cases, choose not to reveal these reasons (Telpaz, Webb, & Levy, 2015). According to Mou et al. (2017), purchasing decisions are the measures taken by consumers to assess the options of goods and services to be purchased. Finally, the purchase decision is related to consumer conduct whether making a purchase or repurchasing (Mick, Spiller, & Baglioni, 2012). Therefore, from the above explanation a third hypothesis could be developed:

H3: There is a high level of dissonance due to the wisdom of purchase for women.

2.1.2.3. Concern over Deal

Cognitive dissonance is a situation of psychological stress resulting from a person's incompatibility with attitudes, actions, convictions, and awareness or from preferring desirable or repulsive alternatives. This is the purchaser's remorse which is a sense of guilt combined with questions as to how recommending a buying decision is when you make a costly buying (Sweeney, Hausknecht, & Soutar, 2000). The CDT indicates that in marketing, cognitive dissonance creates a customer dispute or discomfort about the purchase of a product. It typically leaves the customer unhappy and generally leads to the buyer taking the money elsewhere or guilt about buying. Marketers are seeking to deal with these issues with helpful details such as testimonials; cash-back protection and after-sales operations. For that reason, Sweeney, Hausknecht, and Soutar (2000, p. 380) described the third dimension of dissonance, which was called "concern over deal", a person's awareness that the sales workers may have been affected by their own belief. In fact, more buyers seek and expect higher quality at lower costs and expect an increase in the value for money invested (Kacen, Hess, & Walker, 2012). Consequently, perceived value is a deciding factor that influences the behavior, appraisal, and subsequent purchasing decisions of the customer (Kusumah, 2015). In recent studies, several researchers have pointed out the perceived value. Hansen et al. (2018) argue confidence is a key factor in the decision-making of consumers, while perceived risk tendency directly affects behavioral intent. Moreover, Moody et al. (2017) emphasize that online relationships involving electronic dealings are influenced by trust and lack of confidence. Ozturk et al. (2017) added that customer loyalty relates to faith and perceived risk. Fu, Yan, and Fing (2018) found out that the perceived utility, happiness, and confidence transfer of customers are greatly affected by both external and internal similarities, which ultimately affect consumer-shopping behaviors. Additionally, Bleier et al. (2019) found that the form and brand reliability of a produced commodity influence the impact of each factor of experience on the buying decisions of consumers. Thus, from this review, another hypothesis could be proposed;

H4: There is a high level of dissonance due to concern over the deal.

2.2. Customer Buying Intention; the Impulse Buying

Early literature on marketing defines impulse buying as essentially unplanned purchases (Cobb and Hoyer, 1986). The impulse buying is the act of randomly shopping (Rook and Fisher, 1995). An impulse purchase is not planned by nature, but more than that it implies that we need to buy it. Indeed, this desire is powerful and sometimes irresistible. By the same token, Rook (1987) describes the purchasing urge as "the immediate, often strong and lasting desire of a customer to purchase something right away". Research by Rook and Fisher (1995) shows that impulse buying behavior is partially psychological, at least, in a situation different from one another, and does not display the same degree of impulsiveness. According to Engel et al. (1995), impulse buying is a purchasing behavior that has previously been recognized or buying intention before entering the store without any issue. In addition, O'Guinn and Faber (1989) noted that impulse buying is not only buying goods or services from a purchased product but also obtaining a sense of fulfillment through the buying process itself, however, this left a great deal to be desired and was criticized in literature (Rook and Hoch, 1985; Rook and Gardner, 1993).

In addition, several researchers previously and subsequently viewed "impulse buying" features, including inappropriate, unintended, and careless features (Leong, Jaafar, & Ainin, 2018). Impulse purchasing is the emergence of an intense and powerful urge to purchase a commodity if the customer is triggered externally, and it's a sudden and unthoughtful move (Lim, Lee, & Kim, 2017). Impulse buying includes such cognitive aspects as lack of preparation and discussion, and emotional aspects as feelings of excitement, anticipation, anxiety, loss of control, and probable regret (Verplanken and Herabadi, 2001). More recently, Verplanken and Sato (2011) suggest that impulse

purchasing is actually a self-concept and not an environmental concept since it involves the human self's capacity to change its state. The impulse character is high in many individuals, as it gives them gratification and anticipation that expected transactions are difficult to provide (Wu and Lee, 2016).

Although impulse behavior can occur in any setting, purchasing impulses by consumers is a detailed regular context. Spontaneous impulses to purchase and consume on the modern market often clash with the practical necessity of delaying the instant gratification provided by purchasing (Kalla and Arora, 2011). Adding to this, Kalla (2016, p.99), mentioned that "with a strong and supporting economy, impulse is no longer seen as a leakage in the control. In addition, it is also not seen as a lapse in the regulatory mechanisms of self. Hence, it can be said that impulse in buying scenario is becoming more legitimized now". Impulse buying characteristics and purchasing behavior should be distinguished: purchasing characteristic refers to the trait of individuals who are typically impulsive in purchasing, however, impulsive behavior purchasing, even though there are no high impulsive characteristics, may be rarely shown (George and Yaoyuneyong, 2010).

In 2017, a study conducted by Jhavar and Kushwaha, in which they have mentioned that because the impulse purchase is a common feature and the target for designing a strategic marketing plan for customers, identifying variables that can affect the impulse of buying motive and decision-making for buyers is necessary for retailers to thrive in an increasingly competitive market and try to monitor these influencing variables through strategic marketing plans and merchandising activity. The scholars therefore found a significant argument that the purchase behavior of the consumer is undoubtedly affected by visual merchandising methods (Jhavar and Kushwaha, 2017).

Finally, some researchers (Odlaug and Grant, 2010; Jung, 2017) think that purchases that are so-called impulsive are not really stimulating: consumers might not be able to express their buying selection process but that doesn't mean there is a selection process. These dynamic, intangible selection processes occur during a non-linear phase of subjective sensation. At the same time, purchasing impulses are perceived to be causing highly emotional behaviors rather than reasonable control and highly spontaneous responses. Nevertheless, it does not prove that all customers are unreasonable in unplanned shopping decisions (Leong, Jaafar, & Ainin, 2018). Other researchers like (Lazim et al., 2020) adopted the CDT to explore how consumers overcome post-purchase regret of online impulse buying, and they found that Impulse buying positively influenced post-purchase regret and was moderated by materialism. For instance, according to their findings, a consumer who purchases online impulsively tends to experience post-purchase dissonance, which is caused by post-purchase anxiety about possible unexpected consequences (Lazim et al., 2020). Based on the above discussion, the following hypothesis is derived:

H5: The impulse buying is statistically significant in explaining the cognitive dissonance dimensions.

2.3. Purchasing Decision Involvement

Academic attention has been increased in the last two decades concerning the buying decision in general and the choice of customers in particular, through more systematic methods. Most external search literature on the marketing side discusses how consumers search for information and test potential options before they make decisions on purchases (Beatty and Smith, 1987; Schmidt and Spreng, 1996). Marketing researchers have provided a significant amount of literature on different aspects of consumer behavior since the 1960s, and the most renowned model of customer procurement decision-making is Engel, Blackwell, and Miniard (1995).

In 1947, involvement was described by Sherif and Cantril as an organizational condition whether there is some stimulus that is central to the ego, or if there is a conscious or unconscious interaction between a stimulus and the ego. They showed that many different kinds of involvement can be developed by people including events, artifacts, feelings, social issues, etc. The involvement was also explained in various forms, for instance, according to Sherif and Cantril (1947) it was defined as the intervention in the general interest of an object and the centrality of the object to the ego-structure of an individual. Zaichkowsky (1985) defines involvement as "a person's perceived relevance of an object based on inherent needs, values, and interests" (p. 342). The concept of purchasing involvement is possible to be closely connected to the customer personality, and probably to the set of buying practices, and exactly for describing customer habits. A way to understand what drives people to make logical decisions is to research (Morgan, Baron, & Harris, 1999).

Kotler and Keller (2009) have indicated that at the time of the assessment, consumers would ultimately make preferences among brands on a choice desk, but two factors can interfere with buying intensity and purchasing decision- the other's attitude and unexpected situational factors. Attitudes of others may result in a re-adjustment of the consumer's purchasing intent given the negativity of another person to the preferred alternative or unwillingness

to comply. Unanticipated situational factors may influence the intention to buy; for example, an unforeseen purchase that is more urgent than the purchase was originally encouraged to purchase, which means that choice and purchase intent might not serve as completely dependable predictors of purchase behavior (Kotler and Keller, 2009). Based on other marketing theories, the characteristics of the customer determine how certain external stimuli affect him/her; for instance, costs, quality, product brands, ads, friend or family reviews, disqualifications, and previous buying experience are the main stimulus that leads customers in a dynamic business environment to make their purchasing decisions (Hinz et al., 2011). Furthermore, the process of consumption decision and the purchasing process refers to the steps that a customer takes in the purchase of goods or products, it includes stimulation, issue awareness, knowledge quest, assessment of alternatives, acquisition and post-acquisition behavior (Blackwell, Miniard, & Engel, 2006). In social psychology, the concept of involvement is defined as the effort, the investment, and the engagement used in the purchase process.

The level of purchase decision involvement affects consumer behavior (Sang, Xue, & Zhao, 2018). The consumers' involvement is the level of personal importance and interest that stimulates a particular purchasing situation (Chae, Black, & Heitmeyer, 2006), and it includes an emphasis on an acquisition process that needs a specific acquisition to be taken into account. Moreover, the level of involvement is also related to the degree of the regret after purchase; in fact, a customer would most likely regret the purchase if he/she did not take the time to go through all phases of consumer decision-making, leading to the purchase of a brand lower than the preferred stock. In most situations, the purchase of a product may cause great guilt to the customer, resulting in cognitive dissonance if the buyer makes little effort, for example, to seek information (Hajipor, 2020). Research found that the lower the involvement of a buyer in a purchasing decision the greater the likelihood that the customer is at odds, since a regrettable product can be purchased (George and Edward, 2009).

Consumer decision-making remains an important subject of consumer research as industry patterns continue to change, such as the rise in access-based consumption. (Lawson, Gleim, & Hartline, 2021). As Zhang and Dong (2020) declared most of the purchase decisions are reasoned actions, therefore, intention in the purchase decision-making process refers to conscious intention, and one can consider motivation as the direct determinant of the purchase decision. Every day, customers must make endless choices and increasing information overload must therefore be treated. In today's industry, brands are the most common thumb rule, in fact, they encourage many decisions about purchases and provide reassurance, as current and future decisions relate to experience, satisfaction, and expertise (Keller, 2008; Kapferer, 2008). Brands thus play an important role in decision-making by consumers and direct consumers through purchasing decisions (Hutter, Hautz, Dennhardt, & Füller, 2013). On the other hand, a study presented by McClure and Seock (2020), which they conducted that involvement in social media is becoming increasingly relevant in consumer shopping and purchase behavior can significantly influence consumers' attitudes toward the company or by the attitude toward the brand's social media that consumers' active social media involvement drives their future purchase intention from the brand through attitude toward the company's social media pages.

The level of customer involvement in purchasing decision-making is considered to play a significant role in customer buying conduct. This is what Al-Adamat (2019), insinuates when he explains one aspect of the human condition can be defined by the need to sustain harmony between cognitive and behavioral systems. Individuals seek agreement in their views and ideas and any disparity contributes to discomfort. The relationship between dissonance and consumer behavior has been the subject of valuable research. As Hasan and Nasreen (2012) emphasize, the idea attracted the attention of collective marketing imagination worldwide. Therefore, by studying the impact of social support resources on post-purchase dissonance, Al-Adamat (2019) has mentioned that reducing dissonance is sought by reducing the alleged desirability of refused options and increasing the professed importance of the alternatives selected. If you cannot complement the confirmation of the choice with knowledge, you can change your attitudes so that they fit the choice (Al-Adamat, 2019). Accordingly, the following hypotheses have been proposed:

H6: The purchasing decision involvement is statistically significant in explaining cognitive dissonance dimensions.

H7: The purchasing decision involvement will mediate the relationship between impulse buying and the cognitive dissonance dimensions.

3. Methodology

3.1. Research Model

Our research model is based on three main variables inspired by other previous researchers which are the impulse buying scale (Weun, 1998), the purchasing decision involvement scale (Slama and Tashchian, 1985), and the cognitive dissonance scale (Sweeney, Hausknecht, & Soutar, 2000). The figure below clearly explains the relationship between the variables:

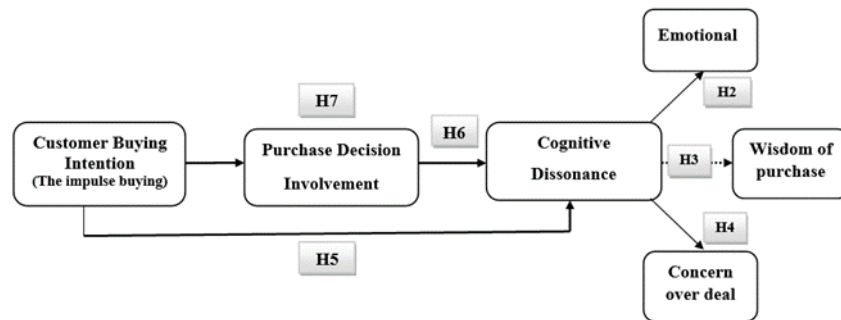


Figure 1. Research Model

3.2. Material and Methods

The multidimensional scale developed by Sweeney, Hausknecht, and Soutar (2000) was used with three dimensions for this study; "Emotional" "Wisdom of Purchase" and "Concern over Deal" with a total of 17 items. Additional measurable elements regarding customer buying intention; impulse buying, purchase decision involvement, and demographics information were also garnered at the beginning of the survey. Hence, the questionnaire is a self-administered survey, constructed of 31 questions and divided into main 4 parts.

The scale was modeled graphically using confirmatory factor analysis (CFA) and structural equation modeling (SEM). The development of the scale is the systematic way of designing and validating a construction according to predetermined standards and procedures (Farooq, 2016). The empirical study was undertaken for Tunisian women concerning fashion products. This product category was chosen for their last purchase and it is typically important enough to potentially trigger cognitive dissonance. The questionnaire was administered online using Google Forms. The research is confined to the target group, exactly women because their demand for fashion products in the apparel industry these days is at its peak, which has caused a paradigm shift in the consumers' preferences and the retail industry. However, the responses led to a final sample of n=402. The sample size, albeit not extraordinarily large, allows for insight into the development of dissonance after purchasing.

The survey of this research is divided into four main parts. First, there are six questions for demography to know the main information about the target group which is Tunisian women. The second part is about the customer buying intention; "impulse buying", which has three questions adopted from Weun, Jones, and Beatty scale (1998). A Likert-type scale was used on this part of the survey, ranging from 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5= strongly agree. Third, five questions were selected from the Slama and Tashchian scale (1985) to measure the purchasing decision involvement which is based on the top standards; for instance, price, quality, recommendation of peers (family/friend), advertisement, and brand name. In this part, women have to indicate the level of scale based on their last purchase, by choosing one of the 5-point scale (1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5= frequently). The last part is "the cognitive dissonance after the purchase decision was made" and this is the main part of the questionnaire in which the multidimensional scale of Sweeney, Hausknecht, & Soutar (2000) was used, to evaluate the level of cognitive dissonance after purchasing apparel products for Tunisian women, and for analyzing the high and low level of dissonance by focusing on the emotional factor.

First, ten of fifteen questions from the scale have been chosen in the emotional items, which reflect the negative aspects of emotions like anger, depression, and frustration. For instance, "I was in despair", "I felt scared", "I felt angry", "I felt annoyed", and "I felt sick"... Second, four items were related to the second dimension wisdom of the purchase. For example, "I wonder if I really need this product", "I wonder whether I shouldn't have bought anything

at all”, “I wonder if I have made the right choice” and “I wonder if I have done the right thing in buying this product”. Therefore, these questions are based on self-attribution and to show if really the customer made the right choice of buying the product. Third, the last dimension of cognitive dissonance is “concern over deal” which has also three questions for instance “I wonder if I had been fooled”, “I wonder if they had spun me a line” and “I wonder whether there was something wrong with the deal I got”. This is referring to the customer that may have been influenced against their own beliefs by sales staff. The answers of participants were on a Likert-type scale; (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5= strongly agree).

3.3. Data Collection and Samples

The data was collected over two months, and it was undertaken for Tunisian women in the context of the apparel industry. The survey was performed in Tunisia and an online method was utilized to obtain the data. Indeed, women were asked to evaluate their last purchasing of fashion clothes and to share their dissonant experiences after the purchasing decision was made. First, the respondents selected their buying intention according to their needs to buy these products. Second, they evaluated their purchase decision on the importance of the price or quality, recommendation of peers, advertisement, and the brand name. Third, women rated their dissonance levels after buying the last apparel product according to the three dimensions of cognitive dissonance. Finally, the answers were gathered using Google Forms and the data was analyzed by SPSS-25 and AMOS-24.

The sample size is 402 for women, providing response rates of 100% respectively. The majority of the respondents explained their age between 15 and 25 years old (Gen Z), and more than the half of participants are singles and employed (54%). The study employed the probability sampling technique, it is a reliable method that guarantees a completely randomized selection procedure and its primary advantage is the accuracy of the statistical methods after the experiment. In particular, stratified random sampling was selected because it is commonly used when one or more of the strata in the population have a low incidence relative to the other strata. Hence, this approach is obtained to ensure the presence of the key subgroup within the sample. In the current research, the participants are mostly big fans of shopping and more specifically impulse buyers who represent a big community in Tunisia.

3.4. Data Analysis

The data analysis was performed using this quantitative technique and it was conducted with the application of SPSS and AMOS software.

The demographic profile of the participants is presented in Table 1.

Table 1. Respondents Profile

| | Frequency | Percentage (%) |
|------------------------|------------------|-----------------------|
| Age | | |
| 15- 25 | 212 | 52.7 |
| 25- 35 | 80 | 19.9 |
| 35- 45 | 60 | 14.9 |
| 45 or more | 50 | 12.4 |
| Total | 402 | 100.0 |
| Marital Status | | |
| Single | 214 | 53.2 |
| Married | 141 | 35.1 |
| Separate/divorced | 47 | 11.7 |
| Total | 402 | 100.0 |
| Employee Status | | |
| Employed | 148 | 36.8 |
| Self Employed | 83 | 20.6 |

| | | |
|---------------------------|------------|--------------|
| Unemployed | 143 | 35.6 |
| Retired | 28 | 7.0 |
| Total | 402 | 100.0 |
| Monthly Income | | |
| Less than 500 TD | 156 | 38.8 |
| 500 – 1000 TD | 103 | 25.6 |
| 1000 – 2000 TD | 92 | 22.9 |
| More than 2000 TD | 51 | 12.7 |
| Total | 402 | 100.0 |
| Number of Children | | |
| 1 - 2 | 63 | 15.7 |
| 2 – 3 | 63 | 15.7 |
| 4 or more | 40 | 10.0 |
| None | 236 | 58.7 |
| Total | 402 | 100.0 |

3.4.1. Cluster Analysis

To test hypothesis 1 "There is a significant difference in the magnitude of Cognitive Dissonance due to age groups, marital status, and employee status", a cluster analysis has been applied based on the dimensions of the cognitive dissonance scale (emotional, wisdom of purchase, concern over deal) to understand the difference on the level of dissonance post-purchase. Indeed, the K-mean cluster was performed as a method to classify the level of dissonance into two groups. The descriptive statistics are represented in Table 3, so the emotional dimension has the lowest mean 2.80, the wisdom of purchase at 2.82, and the concern over the deal has the highest value 3.61. In the second table, the result shows 2 clusters which are classified as high and low levels of dissonance; in fact, there is no big difference in the number of responses between the low (202) and high dissonance (200).

To look for the difference between the low and high levels of dissonance depending on some demographic information, the k-mean cluster was employed to compare the means of age, marital status, and employee status with the three factors of cognitive dissonance. Hence, the statistics in the third table reveal that there is no significant difference in terms of demographic information on emotional and wisdom of purchase, which have the lowest F values of 0.62 and 0.28. In addition, the findings in the second table show there is only a high level of "concern over deal" dimension (4.16).

Therefore, from the specific findings in Table 3, it is clear that the respondents did not express their high level of dissonance towards their last purchase, which means that most of the customers are satisfied. Cognitive dissonance would be expected to appear more on the emotional feeling, but the results did not support this. The demographic information was measured in this part of the analysis to see if the degree of satisfaction of women is related for instance to their age (mean is 1.87) or marital status (mean is 1.58), but the results reveal there is no importance for these items to check the dissonance level for Tunisian women. This provides a rejection of the first hypothesis.

Table 2. K-mean Cluster Analysis

| Cluster | Emotional | Wisdom of Purchase | Concern over Deal | Number |
|--------------------|-----------|--------------------|-------------------|--------|
| 1- Low Dissonance | 2.44 | 2.14 | 3.08 | 202 |
| 2- High Dissonance | 3.17 | 3.49 | 4.16 | 200 |

Note: the scale ranges from 1= Strongly Disagree (low dissonance) to 5= Strongly Agree (high dissonance)

Table 3. Descriptive Statistics and F Test

| Variables | Low dissonance: n= 283 | High Dissonance: n = 119 | Total: n=402 | |
|--------------------------|------------------------|--------------------------|--------------|------|
| | Mean | Standard Deviation | F | Sig. |
| Zscore (Age) | 1.87 | 1.07 | 697.569 | .000 |
| Zscore (Marital Status) | 1.58 | 0.69 | 476.868 | .000 |
| Zscore (Employee Status) | 2.13 | 0.99 | 124.886 | .000 |
| Zscore (Emotional) | 2.80 | 0.68 | .624 | .430 |
| Zscore (WisdomPurchase) | 2.81 | 0.91 | .287 | .593 |
| Zscore (ConcernDeal) | 3.61 | 0.99 | 13.358 | .000 |

3.4.2. Exploratory Factor Analysis (EFA)

Using the method of Factor Analysis helps to decrease the number of items to simplify the data in the measurement model hence, it is achieved by searching for unobserved variables expressed in the manifested variables. In fact, twenty-five questions relating to the effect of cognitive dissonance on women's consumer behavior were divided into five factors analyzed using the principal component analysis (PCA) with varimax rotation for all items. In Table 4, the results indicate that all factors were significant and the data were suitable with twenty-five items, so there are no deleted items. The Kaiser-Meyer-Olkin (KMO) measuring of sample adequacy was 0.87 percent above the commonly recommended value of 0.7 and Bartlett's test of sphericity resulted in the value of 6648.301. Moreover, to identify and compute composite scores for the factors, principal components analysis has been applied as we can see in Table 5. Then, the communalities were all above .4 percent further confirming that each item shared some common variance with other items. Concerning the initial Eigen-values showed respectively that the first five factors explained 28.90 %, 15.02%, 10.07%, 9.18% and 7.23% of the variance. Hence, the factors explained 70.41 percent total of variance. In addition, the factor loadings of the items ranged from 0.63 to 0.93 percent with an Eigen-value greater than 1. Finally, the internal consistency was tested by using Cronbach Alpha for each of the scales which was higher than the cut-off level of 0.70.

Table 4. Factor Analysis Results; KMO and Bartlett's Test

| | | |
|--|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .879 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 6648.301 |
| | Df | 300 |
| | Sig. | .000 |

Note. Detailed results of the analyses of the survey instrument

Table 5. Factor Analysis Results

| Scale Items | Extraction | % of Variance | R. Component |
|----------------------------------|------------|---------------|--------------|
| Customer Buying Intention | | 28.903 | |
| CBI 1 | .874 | | .934 |
| CBI 2 | .788 | | .887 |
| CBI 3 | .823 | | .901 |
| Purchasing Decision | | 15.021 | |
| PDC 1 | .471 | | .683 |
| PDC 2 | .821 | | .905 |
| PDC 3 | .788 | | .884 |
| PDC 4 | .806 | | .896 |
| PDC 5 | .818 | | .902 |

| | | | |
|---------------------------|-------------|---------------|-------------|
| Emotional | | 10.073 | |
| EMO 1 | .480 | | .664 |
| EMO 2 | .555 | | .703 |
| EMO 3 | .506 | | .692 |
| EMO 4 | .645 | | .759 |
| EMO 5 | .706 | | .820 |
| EMO 6 | .670 | | .808 |
| EMO 7 | .690 | | .775 |
| EMO 8 | .453 | | .643 |
| EMO 9 | .469 | | .665 |
| EMO 10 | .539 | | .632 |
| Wisdom of Purchase | | 9.183 | |
| WOP 1 | .846 | | .868 |
| WOP 2 | .817 | | .856 |
| WOP 3 | .822 | | .844 |
| WOP 4 | .707 | | .773 |
| Concern Over Deal | | 7.236 | |
| COD 1 | .863 | | .916 |
| COD 2 | .843 | | .894 |
| COD 3 | .804 | | .884 |

Note. KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) = 0.87; Bartlett's Test of Sphericity = 6648.301; df = 300; Sig = .000; The total variance is explained by all factors.

3.4.3.1. The Eigen Value

The Scree Plot diagram below represents the Eigen-value against the number of items. These values can be seen immediately above in the first two columns of Table 5. As shown above, from the third item (EMO), the value of variance is getting low. In the figure below, you will observe that the line is essentially flat starting from the factor 4 which means that smaller and smaller quantities are represented by each successive factor.

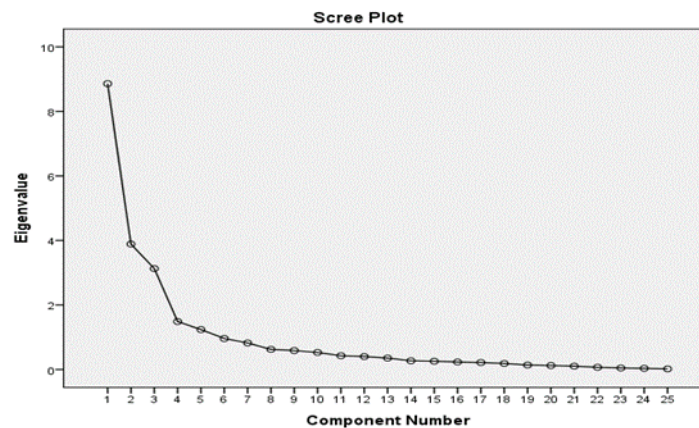


Figure 2. Scree plot of Eigen-value

3.4.3.2. Cronbach’s Alpha Test

Table 6 explains how Cronbach's Alpha depends on the number of items in the study, the average inter-pair covariance, and the variance in the overall ranking. Thus, to check the evidence of internal consistency and the discriminate validity, the alpha value should be higher than the cut-off level (0.70). As a matter of fact, in Table 6 the results were above the commonly recommended value.

Table 6. Items’ Number & Cronbach Coefficient

| | Number of Items | Cronbach's Alpha |
|---------------------------------|------------------------|-------------------------|
| Customer Buying Intention | 3 | .895 |
| Purchasing Decision Involvement | 5 | .910 |
| Emotional | 10 | .908 |
| Wisdom of Purchase | 4 | .916 |
| Concern over Deal | 3 | .904 |
| Total | 25 | .906 |

3.4.3. Correlation

The correlations are depicted in Table 7. The highest mean obtained for customer buying intention is 4.08 and it has a 0.93 score of standard deviation that indicates the value is spread out from the expected average. In addition, the mean of purchasing behavior is 3.65 however, the standard deviation is very high i.e. 0.95, and almost the same score concern over deal with 3.61 for the mean and the highest value for the standard deviation i.e. 0.99. However, the variable of emotion has the lowest value for the mean (2.80) and the standard deviation (0.68).

Further, the customer buying intention is relevant to measure the factors of cognitive dissonance which explains a bit high mean and standard deviation ($\mu = 4.08; \sigma = 0.93$). Thus, there is a perfect positive correlation between customer buying intention and the first dimension of the cognitive dissonance ($r = .31, p = < .01$), negative correlation for Wisdom of purchase ($r = -.20, p = < .01$), but for Concern over deal, a Pearson’s r data analysis revealed a very weak negative correlation ($r = -.009, p = < .01$), and that indicate both of the variables that were moving oppositely.

Moreover, the purchase decision criteria are a dominant variable in creating cognitive dissonance for women hence, the results show that it has a negative linear correlation with the factor of Emotional ($r = -.01, p = < .01$) and wisdom of purchase ($r = -.06, p = < .001$). Whereas, a strongly positive correlation appears between the purchase decision and concern over the deal ($r = .05, p = < .01$) Therefore, the correlation’s table clearly shows that the customer buying intention (.53 / .69 / .86, $p = < .00$) and purchasing decision (.78 / .21 / .31, $p = < .00$) are not statistically significant with the cognitive dissonance and just accord by chance.

Concerning the factors of cognitive dissonance, the results reveal a strongly positive correlation between Emotions and wisdom of purchase ($r = .54, p = < .01$) and concern over the deal ($r = .25, p = < .01$). Second, the wisdom of purchase is correlated so positively to emotional ($r = .54, p = < .01$) and concern over deal ($r = .22, p = < .01$). Third demission also positively related to emotional ($r = .25, p = < .01$) and wisdom of purchase ($r = .22, p = < .01$). This is clearly explaining the significant relationship between the three factors and how strongly the variables are related.

Table 7. Correlations

| | CBI | PDI | EMO | WOP | COD |
|--------------------------------|------------|------------|------------|------------|------------|
| CBI Pearson Correlation | 1 | -.011 | .031 | -.020 | -.009 |
| CBI Sig. (2-tailed) | | .828 | .538 | .696 | .862 |
| N | 402 | 402 | 402 | 402 | 402 |
| PDI Pearson Correlation | -.011 | 1 | -.014 | -.062 | .051 |

| | | | | | | |
|------------|---------------------|-------|-------|--------|--------|--------|
| | Sig. (2-tailed) | .828 | | .784 | .217 | .311 |
| | N | 402 | 402 | 402 | 402 | 402 |
| EMO | Pearson Correlation | .031 | -.014 | 1 | .547** | .252** |
| | Sig. (2-tailed) | .538 | .784 | | .000 | .000 |
| | N | 402 | 402 | 402 | 402 | 402 |
| WOP | Pearson Correlation | -.020 | -.062 | .547** | 1 | .221** |
| | Sig. (2-tailed) | .696 | .217 | .000 | | .000 |
| | N | 402 | 402 | 402 | 402 | 402 |
| COD | Pearson Correlation | -.009 | .051 | .252** | .221** | 1 |
| | Sig. (2-tailed) | .862 | .311 | .000 | .000 | |
| | N | 402 | 402 | 402 | 402 | 402 |

** . Correlation is significant at the 0.01 level (2-tailed).

3.4.4. Confirmatory Factor Analysis (CFA)

CFA is a crucial part of the measurement model in SEM that is used to obtain the acceptable model fit before modeling the structural model. The objective of CFA is to test whether the data fit a hypothesized measurement model. A certain degree of model fit is necessary before the testing of the general model is done (Mulaik and James, 1995). According to Mueller and Hancocks (2008), a very good model fits well since RMSEA < 0.08 (Steiger, 1990), CFI > 0.90 (Joreskog and Sorbom, 1993) and χ^2/df 1.00 - 5.00 (Kline, 2011), IFI > 0.90 (Bollen, 1990). Based on the suggestion by Hair et al. (2010), at least three indices must be fitted well to determine the model fit. The model fit for the cognitive dissonance is reported in the following table and it shows the overall fit indices for the CFA model were acceptable, with $\chi^2/df = 3.257$, RMSEA = 0.075, RMR = 0.048, IFI and CFI having the same value = 0.939, NFI = 0.915, PGFI = 0.682 (Table 8). Figure 3 shows the complete CFA measurement for the model.

Table 8. Output of the Model fit

| Fit Index | Recommended Value | Observed Value |
|-----------|-------------------|----------------|
| CMIN/DF | 1.00 - 5.00 | 3.257 |
| RMSEA | < 0.08 | 0.075 |
| RMR | < 0.08 | 0.048 |
| AGFI | > 0.90 | 0.867 |
| NFI | > 0.90 | 0.915 |
| CFI | > 0.90 | 0.939 |
| IFI | > 0.90 | 0.939 |

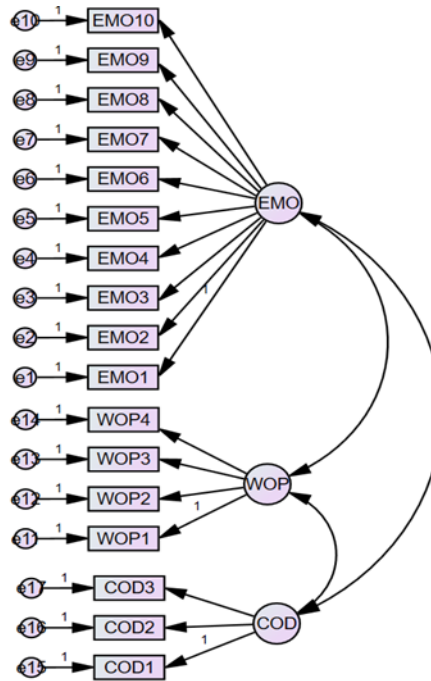


Figure 3. CFA for Cognitive Dissonance Dimensions

3.4.5. Constructs Convergent and Discriminate Validity

In the following table, the findings reveal that the convergent validity and reliability of the research variables have been established in the cognitive dissonance scale since the composite reliability (CR) of the dimension of emotional (0.909), wisdom of purchase (0.917) and concern over deal (0.906) are all above the benchmark of .70. Besides the average variance extraction (AVE) for the cognitive dissonance dimension are all greater than .50 (Fornell and Larcker, 1981). The discriminant validity has been established also through the value of the maximum shared variance (MSV) of the research variables which are below the AVE. Thus, we concluded that the values of AVE and MSV in the table below satisfied the criteria of the convergent and discriminate validity proposed by Fornell and Larcker (1981).

Table 8. Reliability and Convergent Validity

| | CR | AVE | MSV | MaxR(H) | WOP | EMO | COD |
|---------------------------|-------|-------|-------|---------|--------------|--------------|--------------|
| Wisdom of Purchase | 0.917 | 0.736 | 0.342 | 0.927 | 0.858 | | |
| Emotional | 0.909 | 0.504 | 0.342 | 0.960 | 0.585 | 0.710 | |
| Cocern over Deal | 0.906 | 0.763 | 0.073 | 0.972 | 0.252 | 0.270 | 0.874 |

3.4.6. Standard Equation Modeling (SEM)

The measurement consistency requirements are fulfilled by reliability, convergence, and discriminatory validity tests, and this clearly shows that the measurement model is sufficient to evaluate the path coefficients to determine the connections between the model and the analysis which have been theoretically established using AMOS version 24. The indices of the model fit reported that the overall fit was within the acceptable range as can be seen in Table 8; with $\chi^2/df = 1.654$, RMSEA = 0.040, RMR = 0.033, IFI and CFI have the same value = 0.989, NFI = 0.972, PGFI = 0.630 (Table 9). These values provided evidence of all construct validity; Figure 4 shows the measurement model.

Table 9. Goodness Fit on Three Factors Model

| | X ² /df | GFI | NFI | CFI | RMSEA | RMR |
|---------------------|--------------------|------|------|------|-------|------|
| Three Factors Model | 1.654 | .630 | .989 | .989 | .040 | .033 |

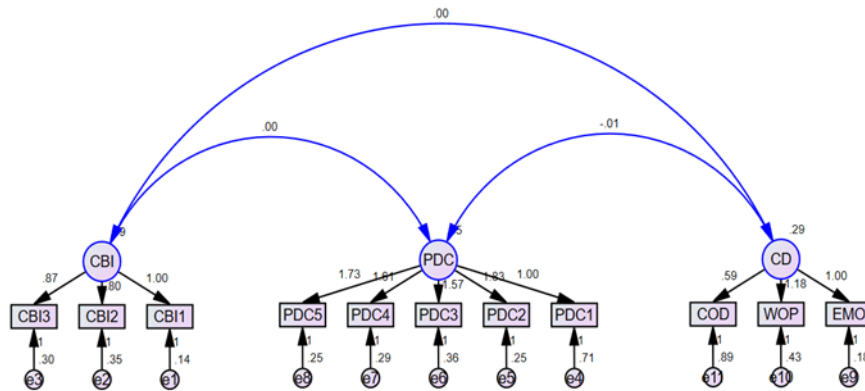


Figure 4. Measurement Model during CFA

3.4.7. Common Method Bias

As the data of the current study is self-reported, there was a need to be sure that the current study data is free of the common method bias problem (Podsakoff et al., 2003). To address the related issues of common method bias, this study adopted Harman's single-factor test (Harman, 1976). The one-factor test has been broadly recommended and applied by prior studies as mentioned by both Podsakoff et al. (2003). Therefore, in the current study, 3 constructs (IB, PDI, CD with 3 dimensions; EMOTIONAL, WOP, COD) with their 25 items were subjected to Harman's single-factor test by using AMOS. The main statistical findings of this test largely supported the fact that there is no concern regarding common method bias since the Chi-square value for the tested model (15.392) was significant and larger than the three-factor model (1.654). Thus, the results highlight that common method bias is not a major problem in this study (Podsakoff et al., 2003, Podsakoff et al., 2012).

Table 10. Goodness Fit of One Factor Model

| | X ² /df | GFI | NFI | CFI | RMSEA | RMR |
|------------------|--------------------|------|------|------|-------|------|
| One Factor Model | 15.392 | .509 | .378 | .391 | .189 | .196 |

3.4.8. Structural modeling using maximum likelihood coefficient

The concurrent maximum likelihood coefficients from structural equation modeling are present in Figure 5 and Table 11. The results below indicate no significant effect between the constructs. First, the path between impulse buying and the purchase decision involvement is negatively not significant ($\beta = -.011, p = .828$). Second, impulse buying does not affect the appearance of cognitive dissonance ($\beta = .007, \rho = .832$). Third, the purchasing decision involvement and cognitive dissonance are negatively not significant ($\beta = -.010, \rho = .752$). Thus, hypotheses 5 and 6 received empirical rejection.

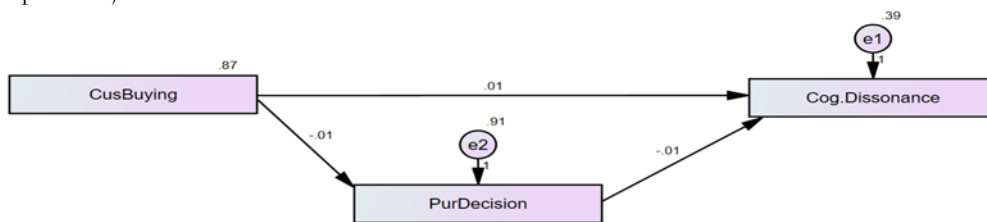


Figure 5. Structural Model

Table 11. Regression Weights

| Effect from | <--- | | Estimate | S.E | C.R. | P |
|----------------------|------|---------------------|----------|------|-------|------|
| Purchasing Decision | <--- | Impulse Buying | -.011 | .051 | -.217 | .828 |
| Cognitive Dissonance | <--- | Impulse Buying | .007 | .033 | .212 | .832 |
| Cognitive Dissonance | <--- | Purchasing Decision | -.010 | .033 | -.315 | .752 |

3.4.9. Mediation analysis

According to hypothesis 7 of this research, the purchasing decision involvement will mediate the relationship between impulse buying and cognitive dissonance. Therefore, to validate the indirect effect of impulse buying through the purchasing decision on cognitive dissonance, the Bootstrapping analysis was carried out in AMOS software, an analytical tool commonly used in psychology to test the statistical significance of the indirect effect in the mediation model (Koopman, 2014). In Table 12 the results reveal the absence of an indirect effect of the customer buying intention on cognitive dissonance through the purchase decision involvement ($\beta = .007, p = .000$). Since there is only a direct effect for the impulse buying on the cognitive dissonance, thus hypothesis 7 is not supported.

Table 12. Breakdown of the Total Effect of the Research Model

| Exogenous Variables | Endogenous Variables | Total Effect | Direct Effect | Indirect Effect |
|---------------------|----------------------|--------------|---------------|-----------------|
| Impulse Buying | Purchase Decision | -.011 | -.011 | .000 |
| Impulse Buying | Cognitive Dissonance | .007 | .007 | .000 |
| Purchase Decision | Cognitive Dissonance | -.010 | -.010 | .000 |

4. Findings

4.1. Main Findings

Initially, some descriptive statistics were computed to determine the magnitude of dissonance for the respondents' profiles. The low mean values for the age (1.87), marital (1.57), and employees' (2.13) status, show a low dissonance across almost the whole sample. However, it seemed that concern over the deal dimension was the dominant dissonance dimension which has the highest mean (3.16). Further, the results reveal that there is no difference in the magnitude of Cognitive Dissonance due to age groups, marital status, and employee status, only for the concern over deals, which is very high for Tunisian women. In addition, using the cluster analysis to set tow most appropriate numbers of clusters, which are the low and high dissonance. Indeed, the participant in this survey explained a high dissonance for the concern over the deal, whereas, for the emotional and wisdom of purchase, they expressed their little dissonance which means they were satisfied with the last purchases and they made the right choice. Therefore, the hypothesis 1, 2, and 3 are rejected while the fourth one is supported.

In addition, in this research model, the customer buying intention is a related construct that is established to measure the relationship with cognitive dissonance. Using the correlation and regression analysis, this structure has been calculated to describe the effect of impulse buying on women buying to check the magnitude of dissonance post-purchase. Indeed, there is a positive correlation between customer buying intention and emotion, but for the wisdom of purchase and concern over the deal, the finding revealed a negative and weak correlation. Whilst, the purchase decision has a negative linear correlation with the factor of Emotional ($r = -.01, p = < .01$) and wisdom of purchase ($r = -.06, p = < .001$), and a positive correlation appears with concern over deal. Subsequently, these constructs are not statistically significant with the cognitive dissonance and just accord by chance.

Further, this research is aimed at determining the relation between the cause and effect of the variables, manipulating one or more independent variables, and setting the interplay between the causal variables in the research model (Abubakar and Sikayena, 2017). Indeed, the overall indices fit of CFA for the cognitive dissonance is acceptable since the convergent validity and reliability of the research variables have been established for the three dimensions (emotional = 0.909, wisdom of purchase = 0.917, and concern over deal = 0.906). Besides the average variance extraction (AVE) for cognitive dissonance dimensions are all greater than .50 (Fornell and Larcker, 1981). Likewise, to determine the connection between the model and the analysis which have been theoretically established using

SEM, the results above confirmed the good model fit since $\chi^2/df = 1.654$, RMSEA = 0.040, RMR = 0.033, IFI = 0.989, NFI = 0.972, and PGFI = 0.630. Besides, the three constructs with their 25 items were subjected to Harman's single-factor test by using AMOS, and the main statistical findings of this test largely supported the fact that there is no concern regarding common method bias since the Chi-square value for the tested model (15.392) was significant and larger than the three factors model (1.654).

Furthermore, the results in the table of Regression weight in the structural model clarify the absence of a significant effect between the variables as follows; impulse buying has no effect on cognitive dissonance ($\beta = .007$, $p = .832$), and concerning the purchase decision involvement also is negatively has no effect on cognitive dissonance dimensions ($\beta = -.010$, $p = .752$). Thence, the hypotheses 5 and 6 were rejected. On the other hand, according to the findings in the mediation analysis, the results show that there is no indirect effect for the relationship between impulse buying and the three dimensions of cognitive dissonance through purchasing decision involvement. Indeed, there is only a direct effect for the impulse buying and the cognitive dissonance. This provides no support for the hypothesis 7.

Finally, through the different analyses used in the empirical study, the main findings of the applied analysis are not in the acceptance of the hypotheses in this research model, thus three main points can be concluded. First, the level of dissonance does not differ with age, marital and employee status. Second, it has been discovered in this study that making impulse buying does not necessarily lead to a high level of dissonance after purchase. Third, the results confirm that the phase of the making decision and consumers' involvement in the pre-purchase decision process do not determine the level of post-purchase dissonance.

5. Discussion & Implications

5.1. Discussion

For many marketers all over the world, dissonance was always a paradoxical concept and an obscure term for them who were always trying to correlate it as accurately as possible with the consumer's behaviors (Harmon-Jones and Mills, 2019). The theory of cognitive dissonance was widely accepted; however, the measurement had been an issue in the services sector in the world where the significance of post-purchase decisions carries high importance due to the increasing purchasing power of customers. Moreover, the author declared, "The development of dissonance over time is complex and does not seem to follow a uniform pattern" (Koller and Salzberger, 2012, p. 261). Indeed, while the results of the present study displayed the antecedents and outcomes of the cognitive dissonance after purchasing from the perspective of the theory of planned behavior (TPB) and the theory of reasoned action (TRA) framework and provided valuable insights about consumer behavior, there is also a difference in the results of the hypothesis of this research with other studies from a different perspective.

First, the physiological differences between women and men may be contended to contribute to various degrees of dissonance, for instance, the writers noted that "men and women have different physiological patterns which means that the level of dissonance may differ based on gender" (Graff, Sophonthummapharn, & Parida, 2012, p. 37). Hence, men tend to be double-minded and susceptible to dissonance, but women are often more rational and can easily build up dissonance logically (Graff et al., 2012). Moreover, Jain et al. (2017) declared that women have a more pragmatic perspective that can rationalize dissonance more easily since the female population was found to dominate the luxury buyers' market. Indeed, the perceived male tendency for less-oriented and more active responses could be seen as being related to a greater experience of dissonance (Soutar and Sweeney, 2003). The scholars ultimately found that younger consumers are more disagreeable than mature consumers, and age is an important factor since younger customers carry on more sophisticated purchasing habits concerning technical products, but, older customers are more constantly approaching such transactions and placing greater trust in sales staff. Another investigation by Jamwal and Pandey (2016) with the title "Understanding the Impact of Demographics on Post-Purchase Cognitive Dissonance", has found the importance of age to test the effect on dissonance, in fact, they concluded that young clients are more likely to be dissonant than old clients. Compared to the sample in this research paper, since the majority of the respondents were between the ages of 15 and 25 and normally do not buy highly involved products, it is possible for them not to experience any post-purchase dissonance. Statistically, the results further showed there is no difference in women's age to determine the high or low dissonance, so the level of dissonance on Tunisian women post-purchase an apparel product does not differ with their age or status. Therefore,

this conclusion does not support other researchers' results, such as those of Soutar and Sweeney (2003) and Jamwal and Pandey (2016).

Second, it would have been more difficult to expect high-dissonant customers to determine the quality of the product, which would result in lower levels of satisfaction (Sweeney, Hausknecht, & Soutar, 2000). The authors found that the difficulty of quality judgment was most linked to people's "concern over deal" as salespeople's guarantees can mitigate difficulties in assessing quality. The difficulty in making a quality evaluation was also connected to the "emotional" component of dissonance, but the contract or the deal also affected perceived values and satisfaction more than other aspects of dissonance. Additionally, Sweeney et al. (2000) found that the cognitive aspect, "wisdom of purchase" had a weaker link to the three related constructs; however, its connection to the quality of the good was strongest. Furthermore, Sweeney and Soutar (2003) added that "it is important to recognize that dissonance can be increased by sales staff, particularly given the nature of the "concern over the deal" dimension, which is based on a sense of being persuaded against one's own will" (Soutar and Sweeney, 2003, p. 243). In the present research, the criterion-related validity of the cognitive dissonance scale was supported; women have a high level of dissonance on concern over deal and non-for emotions and wisdom of purchase. Hence, the findings in this study reveal that "concern over deal" was the most related dissonant factor to women, which had a greater impact on perceived value and satisfaction than other dissonance dimensions. Furthermore, by using the same scale to measure cognitive dissonance, Graff et al. (2012) in their article identified the level of dissonance after the purchasing phase by focusing on the industry of mobile phones, and their statistical results revealed that the respondents were seemingly pleased and satisfied, not so emotionally involved and there was a low degree of dissonance. Thus, the hypotheses related to the high level of dissonance on the three dimensions (emotional, wisdom of purchase, and concern over deal) for the Tunisian sample are by the results of the previous research motioned above (i.e. Sweeney et al., 2000; Soutar and Sweeney, 2003. Graff et al., 2012).

Third, by reviewing previous literature on impulse buying and according to former studies, it seems that impulse buying is already a common phenomenon and that it has been an important issue in the shopping environment, which may lead to cognitive dissonance after the buying decision. Indeed, informed by prior theory, it was expected that impulsive individuals would experience a higher level of cognitive dissonance after an unplanned purchase than less impulsive individuals (George and Yaoyuneyong, 2010). In accordance with Leong et al. (2018), impulse buying would lead to product dissonance and emotion dissonance. Akbar et al. (2020) also showed that impulse buying behavior enhances post-purchase cognitive dissonance; therefore, consumers would doubt the decision of their impulsive purchase behavior, leading to emotional dissonance. Additionally, empirical research conducted by Chen et al. (2020) is coherent with another study by Powers and Jack (2015) which verified that consumers would come up with a return tendency when they express the reaction of product dissonance and emotion dissonance in case of getting afraid or upset after impulse buying behavior. Thus, hypothesis 5 received empirical rejection and the statistical results in this research do not support the various studies mentioned above (i.e. Powers and Jack, 2015; Leong et al., 2018; Akbar et al., 2020). On the other hand, this research examined another significant theoretical link between impulse buying and cognitive dissonance. Other researchers such as George and Yaoyuneyong (2010) used the same scale to measure the cognitive dissonance with the impulsiveness trait, and in their investigation, they concluded that cognitive dissonance is significantly not predicted by impulse buying, hence it was found that those with a high degree of impulse buying get relatively less cognitive dissonance after purchasing. For that reason, the writers have mentioned "these findings lead to a new theory, according to which, impulse buying behavior may be a coping strategy used to avoid discomfort associated with the possible disconfirmation of expectations" (George and Yaoyuneyong, 2010, p. 291). Likewise, in the present research, the results show that impulse buying is not a factor to explain the dissonance post-purchase for women especially for the emotional dimension since all the participants expressed their satisfaction even though were aware of the impulsiveness of purchasing apparel products.

In addition, it is important to study and explore the extent and effects of dissonance in the process of making the decision. Hasan and Nasreen (2012) deduced in their article "Cognitive Dissonance and its Impact on Consumer Buying Behaviour" that if the customer is more interested in making a choice that is, he finds information about the likely product to be bought and chooses to buy on his own, the awkward feeling of dissonance is less likely to occur. Moreover, they concluded that in terms of buying luxury items, dissonance is more prevalent for consumers in the purchase decision stage. Cheah et al. (2015) shed light on the relationship between the consumer's behavior and the degree of dissonance associated with the purchasing decision. Additionally, Lee and Li (2013) explored the

relationship between cognitive dissonance, consumption value, word-of-mouth communication, and consumer's anticipated satisfaction. Customer involvement can shift cognitive dissonance by constantly finding knowledge and changing attitudes (Kopalle and Lindsey-Mullikin, 2003). Additionally, consumers gain awareness of alternatives during their involvement, which can alter their attitude toward product results (George and Edward, 2009). Consumers prefer to be exposed to knowledge, which is selectively compliant with their previous product belief. Moreover, cognitive dissonance can be linked to other factors in other studies, which have shown that inconsistencies between expectations or values may create dissonance (Proulx et al., 2012). Other researchers such as Hoshino-Browne et al. (2005) support the idea of the importance of social support and culture on cognitive dissonance. In a more recent study, Liu et al. (2020) found the influence of purchase-decision involvement on consumers' total consumption. Whereas, the empirical data in the present investigation were found to directly contradict the previous view (i.e. Cheah et al., 2015; Lee and Li, 2013; Liu et al., 2020). Thus, the results of this research imply that the purchasing decision involvement does not affect explaining Tunisian women's dissonance post purchase, because consumers may experience psychological discomfort if they are uncertain about their decision (Koller and Salzberger, 2012).

Finally, this research sprinkles light on the interrelationship between impulse buying, the involvement of the consumer in the purchase decision, and the level of dissonance attached to them. The research findings offer a fresh theoretical and practical perspective on consumer's post-purchase behavior. On the one hand, it is important to conclude that the results in the present study revealed that women in the context of luxury fashion products showed their satisfaction with the low level of dissonance. Similarly, Salzberger and Koller (2010) explored in their investigation the interaction of cognitive dissonance and satisfaction and their impact on loyalty and compliant behavior. They have provided a somewhat different perspective and have shown that the complementary mechanisms of the principle of cognitive dissonance and satisfaction are various aspects of the consumer's psychological condition in the post-purchase process and thus control a diverse array of behaviors. Cognitive dissonance seems to be a much more decisive determinant of complaint behavior than satisfaction (Salzberger dan Koller, 2013). The findings related to the article "Investigating the Impact of Cognitive Dissonance and Customer Satisfaction on Loyalty and Complaint Behaviour", Salzberger (2010) indicated that dissonance and satisfaction are additional constructs that characterize various aspects of the customer's mental status after purchase. On the other hand, people tend to seek consistency in their beliefs and perceptions (Kumar and Sharma, 2017). A study by Hoshino-Browne et al. (2005) shows that while it is familiar with dissonance, the different cultural memberships of the people in both Western and Eastern cultures determine how this dissonance occurs and is dispelled. Therefore, the strategic decision-making is affected by the cultural and individual factors (Mert, Bayramlı, & Turgut, 2014). In more recent studies, Rodrigues et al. (2018) have shown the effect of culture on the contexts in which dissonance is caused or reduced, thus may be attributed to cultural backgrounds. Thence, based on the statistical results conducted in this research paper, consumers did not express their dissonance because of their impulse buying and the involvement to make their decision, but they confirmed their satisfaction and this due to cultural circumstances, and beliefs.

5.2. Managerial Implications

This research offers further insight into the post-purchase stage and the factors that contribute to understanding the level of dissonance for women by examining their behavior, emotions, and attitudes. A theoretical structure clarified by the multidimensional scale of Sweeney et al. (2000) has been established to understand the level of cognitive dissonance post-purchase and its impact on women's behavior. Therefore, discussing the customer buying intention and the purchasing decision involvement may help in better understanding consumer behavior.

In this empirical study, the findings above would be an eye-opener to various market researchers and academicians to know the importance of cognitive dissonance for making customers satisfied or dissatisfied. First, this research paper may have modulation for detecting any dissonance in the study sample after purchase. The researchers intend to add the caveat that the lack of extant empirical investigation into this subject and the relative novelty of this field of research demands the adoption of a degree of caution when interpreting any findings. In addition, measuring post-purchase dissonance will assist marketers in designing effective customer retention and attraction strategies as well as enable managers to assess the dynamics of their sales system and to look for better customer feedback. Moreover, the study could help managers evaluate their sales customer interface dynamics and look for improvements toward higher customer orientation, devise appropriate strategies to retain and attract customers.

5.3. Theoretical Implications

The discussion in this research paper has given an overview to understand the importance of cognitive dissonance and post-purchase behavior in today's competitive environment. The theory coined by Festinger (1957) is still relevant in explaining and predicting consumer behavior, significantly, when they change their attitude or behavior to accommodate the dissonance due to impulsiveness or involvement in decision-making. In fact, despite its rising importance, the literature is missing to explore the direct positive effect of impulse buying behavior on post-purchase dissonance for women. However, several familiar studies have investigated the negative role of impulse buying in consumer behavior especially from an emotional perspective such as consumer regret, remorse, and complaints. Other researchers studied the purchasing decision involvement and its role in creating dissonance for consumers, for instance, the influence of social support or another external factor on making the purchase which may confuse consumers with time like exchanging the product. Therefore, to fill this gap, it is time to test the magnitude of dissonance post-purchase, redefine the structure establish an operational measure for the concept of cognitive dissonance, and examine the relationship with other constructions such as impulse buying and the purchasing decision involvement. The findings of this study suggest that most customers show their satisfaction after the post-purchase decision and it seems that women are psychologically aware of their buying intention as well as their decision. Accordingly, this thematic review paper can contribute to consumer behavior literature by pointing to the impulsiveness of buying and the involvement in purchasing decisions and how becoming increasingly relevant in consumer shopping and it has no negative effect on consumer behavior or attitudes. Further, one of the other apparent theoretical implications of CDT is that women's behavior cannot be persuaded by changing their buying intention or even influenced through involvement in deciding to contradict their cognitive state. Finally, the contribution of this finding to CDT literature, is that cognitive dissonance being a psychological theory is grounded in the personality of the consumer and his culture as well.

6. Results & Suggestions

6.1. Results

The theory of cognitive dissonance focuses on the knowledge formation of essential individual psychological processes. It focuses on the connections between knowledge elements that people have about their actions, attitudes, expectations, values, feelings, or environments. This theory has drawn interest and led to substantial work in many academic fields as human behavior because it is the main topic of all social studies. Therefore, this paper aims to expand cognitive dissonance literature by finding areas that are not under investigation and to prepare for further work in theory. It would also be anticipated that recognition of existing gaps and suggestions for further academic inquiries would help to revive interest in the topics and increase its generalization by making greater use of them in information growth. In this regard, the following results were found according to the above findings.

First, we found that the demographic information has no importance to make any difference on the level of dissonance amongst the women's age, marital or employee status. Indeed, according to the cross-tabulation between emotional, wisdom of purchase and the profile information of women, there is no difference in the magnitude of cognitive dissonance.

Second, we detect that according to the research model, the buying intention (impulse buying) and the purchasing decision have no impact on the level of cognitive dissonance and these factors cannot create customer complaints after purchasing their last products. The results confirmed that most of the participants in the survey questions indicated their satisfaction with their apparel purchases. Third, the affiliation between women's buying intention and purchasing decision with the post-purchase cognitive dissonance is reported by one sample female group in the study, so this connection reflected a low level of perceived cognitive dissonance after purchase among single and married women who were supposed to have an impulse buying because of the unplanned purchases, and they were not influenced by any support for taking their decisions such as recommendation for peers, a consumer report and the different brand's information. In particular, we can understand that the involvement in the stage of making purchasing decisions and impulse buying are related to the culture of Tunisians and it seems that they are not the direct factors for rating the level of cognitive dissonance.

Finally, the results indicated that Tunisian women were satisfied with their last purchase, and we can understand that for this community there is no high cognitive dissonance post-purchase. Thus, the satisfaction of customers is the most exciting conclusion drawn from this research paper, and this may be due to cultural circumstances, as the

authors have mentioned in the main reference article of this research “It is important to note that dissonance is not aroused in every purchase” (Sweeney et al., 2000, p 374).

6.2. Suggestions

From a technical perspective, the cognitive dissonance measurement issues can be overcome. Firstly, cognitive dissonance may occur well before the time of the purchase, as decisions are actually taken before the actual purchase, therefore it is better that cognitive dissonance can be seen at all phases in the entire consumption process. For this reason, the author claims, “a better understanding of the dissonance development process can be gained by examining the psychological responses at various stages of the decision-making process” (Soutar and Sweeney, 2003, p. 231). Secondly, evaluation of the post-purchase dissonance for customers in other contexts, for instance, an online retail environment, can be a potential path for good future study rather than an offline retail environment. Third, another researcher can focus on goods that are seen as costlier (i.e. Smartphones, Cars) because dissonance in post-commercial products is frequently associated with more expensive goods as Koller and Salzberger (2012) examined products with lower financial losses and relatively low expenses. Moreover, in terms of further research in the future, another approach can be taken for the study of factors creating buyer’s remorse for both men and women to be able to compare and analyze the different reactions of consumers after purchasing any product or in case the buyer regret to not buy such other product. Finally, since service industry marketers in various business organizations today are rising rapidly, they are facing enormous challenges in realizing their client satisfaction. It is therefore necessary to search for better ways to reduce dissonance post-purchase.

6.3. Limitation of the Research

While this study makes some important contributions to the literature on selective exposure and credibility, like all research it has some limitations. Firstly, since this study focuses on the dissonance of women in purchasing luxury fashion products, this could be a shortcoming because emotional and rational components can result in different responses. The idea of testing the post-purchase dissonance for the category of this product is very limited and the results may be different with tangible goods. Thus, the suitability for the scale could be empirically tested with other products than apparel products. Secondly, since the majority of responses were from the new generation (between 15 - 25 years old), the sample may be not enough to define the results for those categories. Secondly, there is another limitation involved, the selection of a single geographical context of Tunisian consumers as a sample frame, and women seem to have a relative preference for products from their own country. Therefore, based on cultural preferences the data could be collected from different geographical locations for the stability of findings. Further, conducting the questionnaire in another country or amongst different demographic groups might have yielded entirely different results. Lastly, this study is limited by the use of only the dichotomous variables that are related to customer buying intention and his decision; so in future research, a different method, such as a large-scale survey for two customer samples and two different types of stores selling durable goods could be conducted to better understand the relationships proposed in the present research model.

7. Conclusion

The main goals of the present study were to add reliable and relevant measures to the research on cognitive dissonance, to explain the conceptual basis of cognitive dissonance and its relationship with other marketing principles that form part of the further development of theoretical awareness in this field, besides to create a new systematic analysis to address all the above-listed issues.

The research paper was to establish a proceeding model for cognitive dissonance post-purchase in the context of luxury apparel products for women, especially for Tunisians. All aspects of cognitive dissonance developed by Sweeney, et al. (2000) covered the three same dimensions used in this study and provided a valuable explanation by expanding the women's behavior after purchasing. This analysis focused on the post-purchasing behavior of women whereas, the impulse buying and the purchasing decision involvement were explained clearly by comparable studies. Indeed, the used analysis in the research questions reveals that the cognitive dissonance does not rely on respondents' demographic properties except for a slight effect in the case of women who are expressing their dissonance on “concern over deal”. The results of the SEM and mediation analysis declare that no significant relationship between customers buying intention and purchasing decisions with cognitive dissonance. In addition,

the level of cognitive dissonance for most of the participants was low which means that they were satisfied with their last purchase. The study demonstrates that the emotional component is endorsed positively and explicitly indicates that dissonance encompasses both cognitive and emotional dimensions as the heading suggests as other interpretations.

The most exciting conclusion to be drawn from this study is that dissonance is known to obey a personal decision but it is not confirmed in this study to appear throughout the stage of planning to the shopping and the buying intention as well as the involvement in making the decision. Finally, it is hoped that the results will enable business analysts to understand the impact of cognitive dissonance on consumer behavior and to strengthen marketing efforts to guarantee consumer satisfaction.

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