## Too Much Choice and Consumer Decision Making: The Moderating Role of Consumer Involvement

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## ABSTRACT

The study attempts to explore the choice available for grocery consumers and its impact on decision-making. The study's design includes the consumer's personal involvement towards the purchase, the emotions, and subsequent satisfaction. For a moderated-mediation model, the data set of 401 respondents were finalized to test the measurement and structural models. The research has established that it is not necessary that consumers are always happy when they have more choices available. Further, it was also established that involvement has a role to play in the emotions which lead to purchasing intentions. The involvement perspective in the model makes this study unique because the part of consumer involvement as a moderator to choices and emotions has not been studied before extensively. The manufacturers must determine the array of choices because producing variety does not always generate more revenues in this part of the world. The study opens new avenues for the researchers to dig into the details and identify consumer behaviors when various choices for consumers are available.

## JEL Classification: D1, D10, D11

**Keywords**: Decision making, personal involvement, subsequent satisfaction, consumer involvement, consumer behavior

## INTRODUCTION

Today, too many choices are available for consumers, and they have to make a complex or massive amount of decisions because of these choices (Donkers, Dellaert, Waisman & Häubl, 2020; Schulz et al., 2019; Wertenbroch et al., 2019). For example, since the past decade, Karachi, the financial hub of Pakistan, has seen massive growth in the retail sector. Big giants like Imtiaz, Metro, Luckyone, Chaseup, and Hyperstar have started operations and maintained a vast network at various locations. This growth enables two main options for the consumers. First, it helps the customer in providing a vast variety of products within a given category. Secondly, within the product range, the consumers got the option to choose. For example, purchasing a Tea is not as simple as one might think. Consumers have to deal with the several variants of a single brand to choose from, including size, flavor, strength, etc. Producers are in a race to provide maximum utility to the consumers to meet their diverse needs and increase the market share (Khan & Hameed, 2019a); this attempt helps meet customer satisfaction as well (Ha & Jang, 2013). According to the standard view of choice theory, rational choice is defined

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as determining the options available for an individual and selecting the best one according to some criteria (Levin & Milgrom, 2004). One of the common findings of rational choice theory reported by Bayus & Putsis's (as cited by Huber, Kocher, Vogel & Meyer, 2012) is that a wide range generates meeting of different preferences and hence offering each customer the best possible product. Iyengar and Lepper (2000) have found the positive impact of a variety of products on assortment attractiveness and store choice (Hoch, Bradlow & Wansink, 1999). In the recent past, the area is discussed by Tang, Hsieh and Chiu (2017). Their research highlighted the role of choice variety and its impact on purchase intentions by taking emotions as a mediator and from the cognitive perspective. This research is focused to validate the results of the mediation model of Tang et al., (2017) in the context of retail stores operating in Karachi, Pakistan. However, the theoretical lens of the study is changed from a cognitive to an involvement perspective. Four different types of involvements are taken into consideration i.e. Ego involvement, commitment/loyalty, communication involvement, and purchase involvement. The main premise of the study is to identify the role of consumer involvement in the choices that are available to consumers in the FMCG sector. Further, the moderation of consumer involvement is also critical in identifying the connections between the available choices and emotions. The choices available in the retail store also instigate consumers to buy more which results in investing more in the grocery than the regular spending (Hameed & Soomro, 2014). This is also investigated in this study whether consumers keep on availing the choices they have got in a retail setting or they control after spending too much on them. Finally, the research also focused on the post-purchase analysis in the conditions where extensive choices are available. The study investigated what happened when consumers are encountered with extensive choices in FMCG products at superstores.

## **KEY CONSTRUCTS & THEORETICAL ISSUES**

## Choice Variety

It is generally believed that the more choices available in society, the better the ability of humans to manage. The area is enough supported by scholars of psychological theory and demonstrated in many domains. The researchers have established a link between available choices and satisfaction, task performance, perceived control, and intrinsic motivation (Lepper, 2000). The author further noted that many theories in social psychology i.e., attribution theory, dissonance theory, reactance theory have noted the powerful effects of perceptions of choice i.e., a group of people order their favorite dishes in a restaurant and more options on the menu more chance to satisfy them. On the other hand, few studies also suggested that the availability of choices can make problems in decision-making and make things complex, resulting in deferring the purchase or search for new options (Dhar, 1997).

## **Consumption emotions**

The emotional perspective in consumer purchase is also an important factor to recognize because consumer not always buys products just for functional or practical reasons. There are other reasons as well i.e., exciting activities, relaxing and fun. The extensive role of emotions is not easy to be discovered but it many researchers' belief that it has a direct impact on consumer purchase intentions such that they alter the initial thoughts of a consumer and change their behaviors to purchase different products than they thought initially (Mano, 2004; Passyn & Sujan, 2006). Some of the studies also highlighted that they are considered negatively, and consumers get dissatisfied after making the purchases (Su, Chen & Zhao, 2009).

## **Consumer involvement**

Consumer involvement in a product type is primarily focused as a major factor related to advertising strategy (Ray, 1982; Vaughn, 1980). It again depends on the level of involvement, that every consumer is different while making their search for information and decision process. After receiving the advertisement communication, consumers define their level of involvement, whether they are active or passive, and depending on this, they limit or extend their communication processing. Tyebjee (1979) stated that to acclimatize the differences among the key factors, advertisers use several operational variables, such as the media type, the repetition degree, the size and length of the message, and the amount of information used in the advertisement.

## **Purchase intentions**

In Ling, Chai and Piew's study as cited by Khan and Hussainy (2018), purchase intentions are explained as willingness or agreeableness to purchase a particular good or service. This variable is also considered to be a component of the cognitive behavior of the consumers that how he/she buys a product/brand. Extensive choices and customer satisfaction

The creation of satisfaction among the consumers or to make the consumers satisfaction is one of the top priorities of any commercial organization (Khan & Hameed, 2017). Satisfied consumers are likely to repurchase and help companies in spreading positive word of mouth (Tariq, Khan, Hussainy & Tariq, 2020). A study conducted by Iyengar and Lepper (2000) has taken 3 samples in their study; participants were to choose the chocolates from limited and extensive choices. The study was to check the level of satisfaction, purchase behavior, and related measures across limited arrays and from an extensive array of choices. The results of the study noted interestingly revealed that extensive choice contexts consumers enjoy the decision-making process; however, they also feel responsible for the decision of choices they make that leads to frustration and dissatisfaction with their choices. Interestingly, from the chocolate samples, the respondents of extensive choices reported having regret and being more dissatisfied about their decision than did a limited array of choice consumers. The point to highlight here is that situations, where high choices are available, tend to look attractive at first sight but once the purchase by consumers has made it become a regretful experience. Therefore, it is hypothesized that: Involvement, Choices, and Emotions.

Considering its hypothetical construct, involvement is a variable that cannot be measured directly. There is a great assortment in the operational signs of involvement; moreover, it also differs in the meaning of the construct for different researchers. Sherif and Hovland (1961) specifically included their "highly involved" issues of their antecedents of their involvement. The variable involvement is considered to be the one that creates differences. The motivating and causal variable has enjoyed the authority to influence on communication and behavior of the purchase. Hence, the level of involvement determines the consumer's choices and the comprehensiveness of their purchase decision process (that includes various attributes to compare brands, number of choices, and consumer's willingness to reach the maximum satisfaction level) in the or the communication process (including information search, from advertising receptivity and different cognitive responses emerged from the exposure). Zimbardo (1960) worked on cognitive dissonance and manipulated involvement experimentally. In the study of choice or attitude change, it was found that respondents who were highly involved can make a public stand in front of spectators about their opinion. Whereas lows involved

respondents perceived their opinions as insignificant. Such an operationalization manipulated a perceived risk predecessor of involvement and especially a psychological risk related to the image one might project. Involvement theory in the consumer behaviors textbooks makes a simple argument on the effect of involvement on consumer behavior. Consumers, when involved, should engage in various behaviors i.e., extensive choice process, active information processing, active search), those who are not involved, should not engage in these behaviors (Assael, 1981). Results of Laurent and Kapferer (1985) show that all the factors of involvement contributed to predicting the behavior. Some of the facets effects specific behaviors and not other behaviors; hence, antecedents should be specified to predict the specific behavior. Thus the point to mention here that involvement plays a key role and can moderate the relationship between choice variety and emotions. The level of involvement inflates or deflates the relationship between choices and emotions.

## Relationship among Choice Variety, Emotion, and Purchase Intentions

Choice variety evoked the emotions that influence purchase intentions and attitudes (Tang et al., 2017). The authors examined the relationship between choices and purchase intentions, where cognition was the moderation between choices and emotions. It is also worth mentioning here that emotions before purchases are difficult in predicting the purchase behaviors i.e., negative affect may reduce the willingness of consumers to shop if they have fun, the hedonic goal in mind (Pham, 1998) but purchase intention may increase if they hope to improve their mood. Researchers also believe that the shopping environment impacts emotions i.e., in-store music, décor, or service quality (Bee & Madrigal, 2013). Generally, the more positive emotions are, the more the chances of intentions to purchase and vice versa (Bee & Madrigal, 2013; Zhang, Sun, Liu & Knight, 2014). The studies have also shown that satisfaction and encouragement are positively related to intentions to purchase (Seva, Duh & Helander, 2007). On the other hand, consumers who are frustrated and face greater difficulty making choices are least likely to make purchases (Berger, Draganska & Simonson, 2007). The study of Tang et al. (2017) concluded that positive emotions lead to positive purchase intentions and vice versa. Their results also revealed that emotions mediate the relationship between choices and purchase intentions.

Based on the discussion on the review of literature, the study proposed the following hypotheses to be adopted:

H1: Choice variety leads to intrinsic emotions

H2: Choice variety is an antecedent of consumers' purchase intentions

H3: Subsequent satisfaction of a consumer is affected by choice variety

H4: Intrinsic emotions is a predictor of consumers' purchase intentions

*H5: Intrinsic emotions mediates the relationship between choice variety and purchase intentions* 

*H6:* Relationship between intrinsic emotions and choice variety is moderated by consumer involvement

## METHODOLOGY

The main sample consists of consumers who purchase groceries from the superstores; however, to check the hypothesis, the sample is also taken from the stores where an extensive array for consumers is not available. The study used a two-way approach to test the statistics. At the first stage, we checked the measurement model to identify the reliability and validity whereas at the second stage the structural model was tested to check the model fitness and hypotheses (Khan

& Hameed, 2019b; Hameed & Khan, 2020). Data has been collected from 494 respondents by visiting the locations personally on a printed copy of the instrument. The study has received 93 questionnaires that were either incomplete or invalid. The incomplete questionnaires were 61, and the rest were invalid. The study could have used to replace missing values by taking median but we have decided to ignore the practice to get accurate results, and the same practice followed with the invalid questions. The purpose and the objectives of the research were briefed to the audience before filling the questionnaire. The sample consists of the audience, which is regular visitors of superstores for groceries. Most of the samples we came across were families where one member has filled the questionnaire but, in some cases, support of the opposite sex was also provided to the main respondents and vice versa. However, some single respondents also are part of this study, and those respondents are both male and female. The total number of male respondents is 321, which is around 80%, and female members are 80, which is around 20% of the respondents.



Figure 1. Proposed Model

Table 1:
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Factor/Outer Loadings

	Choice Variety	Intrinsic Emotions	Involvement	Purchase Intentions	Subsequent satisfaction
CV1	0.959				
CV2	0.956				
IE1		0.858			
IE2		0.895			
IE3		0.865			
IE4		0.852			
IE5		0.732			
IE6		0.772			
In1			0.881		
In2			0.893		
In3			0.874		
In4			0.879		
In5			0.953		
PI1				0.929	
PI2				0.953	
SS1					0.888
SS2					0.907
SS3					0.862
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## RESULTS

The study has applied a two-stage model to test the data. At the first stage, the measurement model was checked where the reliability and validity of the data were confirmed.

Table 1 confirms that the factor/outer loadings of all the items are above the benchmark that is 0.60. The Cronbach's alpha and composite reliability's standard thresholds are 0.7. The values mentioned in table 2 confirms that all the values of reliability are over the minimum thresholds, therefore no issues of reliability in this data. Further, the minimum value of average variance extracted (AVE) is 0.5, and as shown in table 2 that all the values of AVE are greater than the thresholds. Hence there is also meeting the standard criteria, which means that the items constructs are explaining more than 50 percent of their variance, and the error is less. Hence, the credibility of the constructs is found positive.

#### Construct Reliability and Validity **Average Variance** Cronbach's Composite rho\_A Alpha Reliability **Extracted (AVE)** Choice Variety 0.909 0.910 0.957 0.917 Intrinsic Emotions 0.930 0.911 0.930 0.690 Involvement 0.947 1.246 0.953 0.804 Purchase Intentions 0.896 0.872 0.939 0.885 Subsequent satisfac-0.864 0.881 0.916 0.785 tion

Table 2:

As per the method of Fornell-Larcker, the values of discriminant validity are determined. All the items shown in table 3 suggest that their top value is greater than the values mentioned below or on the left side. Hence, it can also be said that the variables are explaining what they are supposed to explain.

## Table 3:

Discriminant Validity Fornell-Larcker Criterion

	Choice Variety	Intrinsic Emotions	Involvement	Purchase Intentions	Subsequent satisfaction
Choice Variety	0.958				
Intrinsic Emotions	0.443	0.831			
Involvement	0.029	0.047	0.897		
Purchase Intentions	0.027	0.147	0.133	0.941	
Subsequent satisfaction	-0.311	-0.143	-0.101	-0.093	0.886

To check the multicollinearity issue in the items, Collinearity statistics (VIF) has been applied where all the values are found less than 5. That means no significant collinearity issue was found in the data. Few items were more than 4, but since they are also less than the minimum thresholds that are 5, therefore they are also considered correct for the study. Hence, it may be said that in the collected data for this study, there are no high inter-correlations among the independent variable's items, which also means that there is no disturbance found between the variables.

Items	VIF
CV1	3.281
CV2	3.281
IE1	2.714
IE2	3.457
IE3	3.168
IE4	2.777
IE5	2.986
IE6	3.277
In1	3.324
In2	3.561
In3	4.577
In4	4.536
In5	4.347
PI1	2.481
PI2	2.481
SS1	2.369
SS2	2.283
SS3	2.072

## Table 4: Collinearity statistics (VIF)

## Direct and indirect relationships

The direct relationship between choice variety and intrinsic emotions is found positive and significant that means the choice variety is affecting positively to the emotions of the customers and proves as discussed in the literature. The direct relationship between choice variety is found insignificant, whereas the relationship between choice variety and subsequent satisfaction is found significant but negative. That means the study has highlighted the concerns discussed in the literature that most of the time when choices are on the higher side is not good for the satisfaction after purchase. Finally, the direct relationship between emotions and purchase intentions is also found positive and significant from the given p values in table 5. This relation is extracted from the mediation model of the study.

Finally, the significant relationships can also be checked from the T statistics provided where all the values are higher than 2, which is the minimum threshold of T statistics. It is therefore believed that all the hypotheses discussed in the model are accepted in their direct relationship.

# Table 5:Direct relationship

Direct Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Choice Variety $\rightarrow$ Intrinsic Emotions	0.442	0.443	0.045	9.845	0.000
Choice Variety $\rightarrow$ Purchase Intentions	-0.048	-0.048	0.056	0.858	0.391
Choice Variety $\rightarrow$ Subsequent satisfaction	-0.311	-0.313	0.043	7.180	0.000
Intrinsic Emotions $\rightarrow$ Purchase Intentions	0.169	0.168	0.065	2.601	0.009

## Table 6:

Indirect relationship

Indirect relationship	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Choice Variety $\rightarrow$ Intrinsic Emotions $\rightarrow$ Purchase Intentions	0.075	0.074	0.029	2.587	0.010

As far as indirect relationships are concerned, the study has taken one mediation model where choice variety is the independent variable, intrinsic emotions are a mediator and purchase intention are the dependent variable. The result of the mediation model is discussed in table 6 where it is found that the indirect relationship between choice variety and purchase intentions is significant. When the direct relationship between these two variables was insignificant and indirect is significant, it is safely said that the true mediation found the mediation model. The T statistics of the indirect model is also higher than 2 which also confirms its significance.

*Moderation analysis:* Choice variety and intrinsic emotions with consumer involvement Moderation

The study conducted moderation analysis using before and after the method. At first, the moderator, consumer involvement was taken independent variable along with choice variety while intrinsic emotions were the dependent variable. The regression results of the model are discussed in table 7.

## Table 7:

Regression without Moderator

	R	R <sup>2</sup>	ANOVA	Unst B	Sig Values
CV	.348	.121	0.000	.332	0.000
IN				.047	.273

The model fitness suggested that the model is fit to predict the results and it may also be seen that the moderator is rejected while the R is at a moderate level which is accepted in management science studies.



Figure 2: 2 Way Interactions

Secondly, the study has created a new variable with the name MOD for the interaction effects between the independent and dependent variables. The regression results from this model have shown improvement as compared to the previous model discussed in Table 7.

## Table 8:

Regression with Moderator

	R	<b>R</b> <sup>2</sup>	ANOVA	Unst B	Sig Values
CV	0.395	.156	0.000	.390	0.000
IN				.048	.260
MOD				.170	.001

In the results as shown in table 8, the interaction effects found significant, the R has also improved, whereas the beta values of choice variety and consumer involvement are also improved. Figure 2 also highlighted the impact of the moderator on choice variety and consumer emotions that prove the moderator's hypothesis.

## DISCUSSION AND CONCLUSION

The study represents an integrated model by considering choice variety as the predictor for all other constructs. The empirical evidence suggested that choice variety affects intrinsic motivation to purchase products and also has a favorable impact on customer satisfaction. The study also revealed that the availability of more choices harms the consumers' purchase intention. However, interestingly the study has provided insight into the buyer's decisionmaking process. With the availability of more choices, consumers' intrinsic motivation increases, and from this path, consumers' purchase intention can be evoked.

The study is a continuation of the model given by Tang et al. (2017) and has discussed one of the most interesting areas in marketing. They have discussed the model from a cognition

perspective and taken purchase intentions as a dependent variable. From the model, this research has made two changes. First, we have proposed the same model from an involvement perspective; secondly, subsequent satisfaction is added as a consequence of more choices. The results have supported everything discussed in the literature and the model taken. True meditation has been found in the model where intrinsic motivation was the mediator between choice variety and purchase intentions. The moderator added was consumer involvement also has shown its interaction between the choice variety and intrinsic motivation. Hence, it was proved in this research that it is not always happened that customers feel happy when the choices are more. Further, involvement also plays a key role in the emotions that leads to purchase intentions.

Manufacturers should determine the array of choices they should offer to their consumers. Such offers give options to the consumers that sometimes backfire; therefore, unnecessary options that increase costs of the companies should be checked and discouraged (Schwartz, 2006; Tang et al., 2017). Empirical results have also shown that consumers exposed to extensive choices spend more time and effort than consumers with limited choices (Herrmann & Heitmann, 2006; Russo & Dosher, 1983). Therefore, there is a need to analyze the limit to offer products to consumers.

## LIMITATION AND FUTURE RESEARCH

The structure of the study was not as discussed by Tang et al. (2017), the instrument was designed on a Likert scale from 1 to 5. Future researchers can check the study by taking Tang et al. (2017) as an example and reapply this model by high and low involvements of the consumers. At the same time, positive and negative emotions may also be checked. Secondly, the study was focused on the consumers of FMCG, this model may also be applied to the branded goods to check the consequences of extensive choice variety. Third, future researchers may also give the process of purchase decisions considering the involvement and cognitive perspective. Finally, the consumption part is ignored in such studies, it would be great if additional researches could touch this area in the model suggested.

The study aimed at collecting data from the consumers at one point in time by using a crosssectional survey method. The consumers were asked to provide data about their recent purchase experience. However, the data can be collected about a particular shopping experience by creating a simulated environment. They can be placed before such an environment in the form of groups and their behavior can be observed through a glass wall. Furthermore, a longitudinal study design can be carefully formulated. In this regard, a group of individuals can be identified who have not yet visited these above-mentioned giant supermarkets. The data about their shopping experience from a store where fewer choices are available can be collected initially. Then the same consumers can be exposed to a supermarket for their next periodic regular shopping. Immediately after their visit, they can be asked about their shopping experience. This approach will help us understand the true impact of available choices. The experts have identified that people are identified by their relationships and also develop similar habits (Hameed & Irfan, 2020). This aspect of behavior can be studied further from the availability of choices perspective. The study focused on one aspect of supermarkets i.e., available choices. Future researches can be conducted by incorporating several other factors, for example, environment, prices, the behavior of staff, etc.

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