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AN INVESTIGATION OF CONSUMER DECISION MAKING STYLES ON INTENTIONS TO PURCHASE ENERGY EFFICIENT HOME APPLIANCES IN PAKISTAN

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ABSTRACT

Growing demand for energy-efficient home appliances is trending around the globe. Using such appliances not only benefits environmental preservation but also reduces energy consumption. This study investigates consumer decision making styles (CDMS) toward purchase of energy-efficient home appliances. The applicability of Sprotles and Kendall's Consumer Styles Inventory (CSI) is examined in this context, along with the role of religiosity. This study applied a deductive research approach. Using cross-sectional data, a total of 325 valid questionnaires were collected to validate the proposed hypothesis by using the Partial Least Square (PLS) path modeling approach (a variance-based SEM technique). Results show that religiosity has strong impact on consumer purchase intentions, while other significant decision-making styles are "Perfectionism, Brand Consciousness, Price Consciousness, Recreation consciousness, and Brand Loyal." The valuable results from this research will benefit not only academic researchers but also home appliance manufacturing companies. Managers can position their products according to the findings of this research.

JEL Classifications: M31, M14

Key words: Consumer decision-making style, Religiosity, Energy-efficient home appliances, Purchase intentions, Pakistan

1. INTRODUCTION

Since the dawn of the 21st century, rapid technological advancement has fueled global energy consumption (Ali et al., 2019b). The world is witnessing an ever-growing energy demand with a projected 27 percent expansion by 2040, most of which will be generated by developing nations. The household sector shares 31 percent of total energy usage (IEA, 2018). Worldwide hike in energy prices and environmental awareness have boosted sales of energy-efficient home appliances. The global home appliances industry is projected to reach US$342.82 billion by 2022 (Research and Markets, 2018).

Growing demand for energy-efficient home appliances has increased research interest in different consumer behavioral antecedents and decision-making processes (Ali et al., 2019b; Li and Shanyong, 2019; Tan, Ooi, and Goh, 2017). Examining the basic characteristics of consumer decision-making styles toward green products (energy-efficient home appliances) is essential to consumer-interest studies (Prakash, Singh, and Yadav, 2018; Sprotles and Kendall, 1986). Consumers distinguish each other in selection of products by forming a distinct decision-making style. Prior researchers have used the Consumer Styles Inventory (CSI) for identifying these unique styles (Prakash et al., 2018; Rezaei, 2015; Nayeem, 2014; Cowart and Goldsmith, 2007; Wesley, LeHew, and Woodside, 2006).

These styles can be defined as "a mental orientation characterizing a consumer's approach to making choices" (Sprotles and Kendall, 1986). CSI has been applied to a broader range of subjects covering consumer buying behavior such as in organic food (Prakash et al., 2018), automobiles (Nayeem, 2014), clothing and food (Yousaf and Huaibin, 2013), fashion (Kavkani, Seyedjavadain, and Saadeghvaziri, 2011), mall shopping behavior (Wesley et al., 2006) and online shopping behavior (Sam and Chatwin, 2015). However, CSI applications are scarce in an energy-efficient behavioral context. CSI has been widely applied in developed nations such as the USA, UK, Germany, Australia, and New Zealand (Alavi et al., 2016; Bauer, and Sauer, 2015; Anic, Rajh, and Rajh, 2014; Nayeem, 2014; Bakewell, Mitchell, and Rothwell, 2006; Leo, Bennett, and Härtel, 2005; Canabal, 2002; Sprotles and Kendall, 1986). Hence studying energy-efficient consumer behavior in developing nations will contribute to the evolving literature. According to the IEA (2018), developing nations are creating more energy demand than developed countries. Several studies have applied CSI in developing nations such

as China, India, Malaysia, and others, for example, Prakash et al. (2018), Alavi et al. (2016), Rezaei (2015), and Zhou et al. (2010). But research using CSI in an energy-efficient context is rare.

The future energy scenario in Pakistan is threatened by a growing population. Around 85 percent growth in consumption of end consumers is observed for electricity in last decade which is projected to be threefold by 2050 (Rafique and Rehman, 2017; Valasai et al., 2017). Moreover, 51 million people still lack electricity supply, which is a challenge and threat for the government. Further, Pakistan had a 74 percent electrification rate in 2016, which is lower compared to India, Bangladesh, Nepal, and Sri Lanka (Irfan et al., 2019). The economy is stressed by the widening gap in the balance of trade where energy imports make up 60 percent of import bills (Valasai et al., 2017; Khan and Pervaiz, 2013). That is why Pakistan is witnessing accelerated home appliance ownership. According to a State Bank of Pakistan (2018) report, the country's middle class is growing at a rapid rate. Similarly, rural to urban migration patterns and better living standards have increased sales of TVs, ACs, refrigerators, and fans. The household sector is a significant energy consumer, utilizing 46 percent of total production (Rafique and Rehman, 2017). The severe energy crisis has not only hampered economic growth but also threatened the very social fabric of Pakistan (Kessides, 2013; Kugelman, 2013). Despite the government's effective initiatives in energy generation, it still suffers a 3000MW power deficit (Rehman, 2019).

Consumer spending on electrical and electronic products has increased in Pakistan following GDP growth (Iqbal et al., 2015). Electrical equipment is the third largest import of Pakistan, valued at $4.7 billion by 2017 (Workman, 2018). Hence, residents can make a valuable impact in combating energy deficiency by using energy-efficient home appliances (Ali et al., 2019b). According to recent research, demand for energy-efficient home appliances is gaining momentum (Orbis Reseach, 2018). Increasing energy demand, reduction in energy resources, and high consumer expenditure on electronic products created a need for adopting green home appliances. Therefore, this study attempts to investigate consumer intention to purchase energy-efficient home appliances in the Pakistani context using CSI.

Further, this study has integrated the role of religiosity in the conventional model of CSI. Religiosity is considered an essential element shaping human beliefs, values, decision making, and, most specifically, consumer behavior (Hassan, 2014). Religion guides its

followers in every aspect of life, which ultimately influence their consumption behavior. This phenomenon is also evident in recent studies which reflect the importance of religiosity in green purchase intentions (Siyavooshi, Foroozanfar, and Sharifi, 2019; Ghazali, Mutum, and Ariswibowo, 2018; Khan and Kirmani, 2018; Harizan and Rahman, 2017; Islam and Chandrasekaran, 2016;). Religion's impact on environmental issues is a trending topic, and how religiosity shapes consumer behavior offers unique research and consumer perspectives (Ali et al., 2019a; Mokhlis, 2006). So this study takes religiosity as an additional CSI in predicting consumer intention to use energy-efficient home appliances. It makes a diverse contribution to academicians as well as practitioners. It provides a comprehensive conceptual model by integrating (Sprotles and Kendall, 1986) CSI and religiosity to better understand consumer behavior regarding energy-efficient home appliances in Pakistan. This study helps in understanding the factors affecting consumer intention to buy energy-efficient home appliances, which can ultimately resolve the environmental and energy issues in Pakistan.

2. LITERATURE REVIEW

Researchers have long been trying to understand factors behind consumer decision-making. Darden and Ashton (1974) presented a "consumer typology approach" focused on shopping motives and consumer attitudes. Lastovicka (1982) emphasized general personality traits by offering a "psychographics /lifestyle approach," consisting of over one hundred factors while Bettman (1979) identified 3 key elements (alternatives, attributes of value, and uncertainties) in the decision-making process. Prior to the establishment of CSI by Sprotles and Kendall (1986), different researchers presented unique decision-making styles based on consumer characteristics such as habitual, brand-loyal (Stephenson and Willett, 1969), recreational shopping conscious (Maynes, 1976) and price-value conscious (Jacoby, Chestnut, and Fisher, 1978). Sprotles and Kendall (1986) offered a comprehensive inventory of consumer decision making styles focused on cognitive and affective orientations of consumer characteristics.

Many scholars have used CSI to enhance their understanding of consumer behavior. Worldwide application of CSI has proven its acceptability (Prakash et al., 2018; Nayeem, 2014; Yousaf and Huaibin, 2013; Cowart and Goldsmith, 2007; Kamaruddin and Mokhlis, 2003; Canabal, 2002). Consumers adopt individuality while choosing between alternatives, and specific patterns of this selection

form unique consumer decision-making styles. CSI classifies these unique consumer styles that could categorize consumer behaviors and forms a grid of these styles. CSI is not only useful for marketers to market their products according to each grid of consumer needs but also educates consumers about their decision making properties by providing a base for personal financial management (Kavkani et al., 2011; Quester and Lim, 2003).

Consumer Style Inventory by Sprotles and Kendall (1986) consists of eight different consumer decision making styles known as: "Perfectionism," "Novelty-fashion consciousness," "Brand consciousness," "Price consciousness," "Recreation consciousness," "Confusion by over choice," "Impulsiveness," and "Habitual, brand-loyal purchasing orientation." Literature has evidenced that CSI has been used across different product categories. Yet CSI application in understanding consumer intention of buying energy-efficient home appliances remains unexplored.

This study focuses on evaluating the impact of different consumer decision-making styles on purchase intentions. According to Ajzen(1991), this intention can be defined as "A behavioral intention refers to a person's subjective probability that they will perform some behavior." Purchase intention refers to the predicted behavior of consumers who will buy a specific product in future based on belief and attitude. Researchers suggested that consumers' actual buying decisions are based on their intentions (Ali et al., 2019a). These intentions lead besides serving as a good predictor of actual buying behavior and influence consumer decisions. Consumer decision-making styles are changed in different situations and product categories, especially in the case of green products (Sprotles and Kendall, 1986). So it becomes essential to understand consumer intention of buying energy-efficient home appliances by using CSI in Pakistan. Based on CSI's eight styles, we have developed the following hypotheses:

H1: Perfectionism significantly influences consumers' intentions to purchase energy-efficient home appliances.

Perfectionist style refers to the consumer's searching for the best quality products available in the market (Zhou et al., 2010). The consumer uses the systematic decision process, careful shopping, and selecting the best product (Alavi et al., 2016). These consumers are not satisfied just by brands but with the quality of products that are superior to others (Anic et al., 2014). Moreover, sustainable

consumption and the green product is also considered as the symbol of a better quality product and these green consumers strive for societal wellbeing (Yan and Dai, 2009). Several studies found that product quality significantly affects green consumption behavior (Biswas and Roy, 2015a). A recent study in Pakistan found that the quality of energy-efficient electronic products affects consumer decisions (Danish et al., 2019).

H2: Brand consciousness significantly influences consumers' intentions to purchase energy-efficient home appliances.

Brand consciousness is characterized as consumers being more likely to buy well known, bestselling, advertised, and expensive brands (Nayeem and Casidy, 2015). Consumers with this kind of decision-making style consider that famous brands always have high-quality products (Park and Gretzel, 2008). It is basically a psychological priority toward renowned brands, and consumers look to price as criteria for better quality or rank them separately (Panzone, 2014; Zhang and Kim, 2013). For consumers, brands are considered to be have high perceived quality and quality expectations (Banović et al., 2009). This type of consumer associates brand awareness, advertisement, and price with quality, and if a consumer tries these products, there is more chance of high brand trust and loyalty. Since quality is mostly associated with price, brand conscious consumers perceive that high quality can be achieved through high cost (Panzone, 2014). So, they perceive that price would be higher for the best quality products, and they are more likely to pay for it. In this category, the consumption of famous brands is considered a sign of prestige. Pakistan has limited manufacturers of energy-efficient electronics, and consumers have minimal options, so they have to stick within these brands (Ali et al., 2019b).

H3: Novelty consciousness significantly influences consumers' intentions to purchase energy-efficient home appliances.

Novelty seeking refers to the consumer's tendency to search for new products and remain up to date with different style products (Prakash et al., 2018). These consumers consider new-fashioned things such as entertainment, and they are very excited to try new things (Casidy, 2012). These consumers are basically innovators and adaptive to novel products and always search for something new (Wang, Siu, and Hui, 2004). Modernization and digitalization are changing trends that force them to buy an upgraded version of the same product category. It is

found that consumers purchase green and eco-friendly products from the knowledge seeking and novelty perspective (Biswas and Roy, 2015b; Suki, 2015). In Pakistan, energy-efficient electronic products are considered as new and innovative products in the electronic industry. Since consumers having novelty-seeking, tendencies can be involved in the buying of energy-efficient electronics (Ali et al., 2019a),

H4: Recreation consciousness significantly influences consumers' intentions to purchase energy-efficient home appliances.

Consumers have the tendency to explore and buy products in seeking pleasure, enjoyment, and recreation (Kavkani et al., 2011). These consumers mainly focus on product hedonic value and especially the store they buy from (Park and Gretzel, 2008). Many authors identify that this amusement and pleasure can replace consumer rational decision making and consumers purchase the product if they found fun in it. Moreover, these kinds of consumers are usually involved in impulse buying, spent more time per shopping journey, and keep doing shopping even after a purchase (Alavi et al., 2016). These consumers often prefer those products that look stylish and offer fun or pleasure in usage.

H5: Price consciousness significantly influences consumers' intentions to purchase energy-efficient home appliances.

Price consciousness refers to the consumers' shopping characteristics in which they look for the lowest price and best value for money. These consumers are mainly comparison shoppers and mostly evaluate product functionality based on cost/benefit analysis. Price is the primary functional value of the product that the consumer wants. Price of eco-friendly products is considered to be an important factor in decision making because green products are much more expensive than conventional products. However, in Pakistan, it was found that consumers search for economical products offering the best value for money (Danish et al., 2019). Moreover, Rahnama and Rajabpour (2017) suggested that consumers living in countries facing high inflation and stagflation are more price conscious.

H6: Impulsiveness significantly influences consumers' intentions to purchase energy-efficient home appliances.

Impulsive buying refers to the consumer's ability to buy products immediately (Anic et al., 2014). Basically, these consumers are unconcerned about how much they spend for specific product or either they will get best value for money for that product or not (Bakewell et al., 2006). These consumers just get emotionally attached to the product and buy the product if they like it. This decision-making style is also known as careless buying behavior due to a lack of rational decision making (Alavi et al., 2016). Consumers having this characteristic do not compare alternatives available in the market but just purchase the product they like (Park and Gretzel, 2008). This kind of decision making requires positive feeling, high income, or maybe the availability of credit. These consumers take shopping as the thrill of the moment without worrying about budget, planning, or finding something better. Previous researchers found that impulsive buying effect consumer decisions regarding green products (Aliman, Ariffin, and Hashim, 2018).

H7: Confusion by over choice significantly influences consumers' intentions to purchase energy-efficient home appliances.

Confusion by over choice's decision-making style occurs when consumers experience information overload or surfeit of available choices in the market (Prakash et al., 2018). Availability of a high number of brands or stores makes consumers confused about which brand or from where to buy (Aliman, Ariffin, and Hashim, 2017). Consumers who search for more brands in a specific category mostly got overloaded by the information. The abundance of information and knowledge makes the consumer confused which brand to buy or from whom to buy. Bombardment by advertisements from marketers also overwhelm consumers, and they get confused during the decision-making process (Prakash et al., 2018). Research has verified that information overload leads consumers to those purchases which they regret afterward (Rezaei, 2015). Recent study finds that confused by over choice influence consumer decision making (Alavi et al., 2016).

H8: Habitual/brand loyal consciousness significantly influences consumers' intentions to purchase energy-efficient home appliances.

Habitual or brand loyal consumer decision-making style refers to consumers who become loyal to the specific brand (Zhou et al., 2010). Consumers tend to buy the same brands, products, or purchase from the same store (Park and Gretzel, 2008). These consumers are loyal

consumers to specific brands, even for every category offering in the market. Basically, this attitude is built due to perceived benefit thatthey get from that particular brand. The habitual or loyal consumers always buy those brands spontaneously (Nayeem, 2014). These consumers always have the same attitude, and changing this attitude required some different strategy from marketers. Even though it is hard to find differences in the available category, brand name noticeably impacts on consumer perceptions (Rezaei, 2015). Post-purchase services affect consumer loyalty levels, and these services effectively contribute to consumer repurchase (Prakash et al., 2018).

H9: Religiosity significantly influences consumers' intentions to purchase energy-efficient home appliances.

Religious beliefs are one of the critical pillars preserving natural boundaries. Its multidimensional role not only dictates how to live, what to consume, but also how to conserve nature (Hassan, 2014; Yousaf and Malik, 2013; Hostager, et al. 1998). Current studies assert the importance of religiosity in shaping consumer behavior, especially its impact on green buying intentions (Ghazali et al., 2018; Khan and Kirmani, 2018). Yousaf and Malik(2013) argue that religion plays an essential role in the consumer decision-making process. Similarly, Hassan (2014) found that purchase intentions and pro-environment behaviors are influenced by religiosity. In societies such as Pakistan where religion is a significant determinant of culture and directly affects consumption behavior (Ali et al., 2019a), studying the role of religiosity in residents' intentions of buying energy-efficient home appliances demands research examination.

Religiosity is defined as "the degree to which followers of one religion accept the major beliefs of that religion" (Kamaruddin, 2007). Major religions of the world, such as Christianity, Judaism, Hinduism, Buddhism, and Islam, all exhort their followers to conduct practices leading to environment preservation and ecological consumption (Khan and Kirmani, 2018). All religions accept that Earth is a creation of God and should be protected. This is evident from different religious teachings stressing ethical, moral, and spiritual commitment to protect the environment (United Nations, 2019).

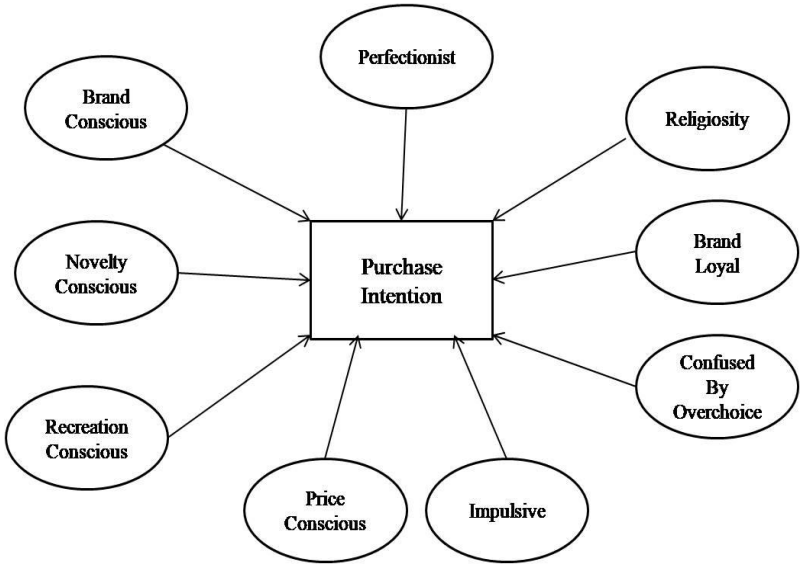
However, the teachings of Islam make every human being responsible for environmental protection by declaring humans as "Khalifahs" vicegerent of God (*Allāh*). The holy book of Muslims "*Al Qurʾān*" addresses this issue in the following manner:

> "Who made all things good which He created." (*Qurʾān.* 32: 7). "And we have commanded to keep it that way: Do no mischief on the Earth after it hath been set in order." (*Qurʾān.* 7: 56). "Then We appointed you viceroys in the Earth after them, that We might see how you behave." (*Qurʾān*. 10: 14).

These verses clearly make humans accountable for resource consumption and responsible for environmental conservation. Similar teachings have been conveyed by the Holy Prophet Muhammad (*ṣal-Allāhu ʿalayhi wa sallam*) to his followers: "If a Muslim plants a tree or sows seeds, and then a bird, or a person or an animal eats from it, it is regarded as a charitable gift (*sadaqat*) for him." (Sahih Bukhari, 513).

Indeed, recent research findings suggest a positive association between religiosity and green consumption behavior (Ali et al., 2019a; Ghazali et al., 2018; Mokhlis, 2006). Rehman and Shabbir (2010) posit that religion influences product adoption intentions of Muslim consumers. Ali et al. (2019a) found that because of religious influence, IT consumers adopt green IT products in Pakistan. Ghazali et al. (2018) found that religiosity has a positive impact on environmental protection behaviors and green purchase intentions in Indonesia and Malaysia.

FIGURE 1
Research Model



3. METHODOLOGY

This study employed a quantitative data collection approach to investigate residents' decision-making styles towards buying energy-efficient home appliances. A survey is used by distributing self-administered questionnaires among residents. The questionnaire consisted of two parts: one focuses on demographic information such as gender, age, occupation, educational level, and monthly household income; the other involves constructs to measure different variables. In order to measure consumer decision making styles, original CSI items were adapted from Sprotles and Kendall (1986), constructs to measure religiosity (five items) were adapted from Ali et al. (2019a) and Plante and Boccaccini (1997), for purchase intention, five items were adapted from Chen and Li (2010) and Ninh and Lobo(2016).

The study adopts a 7-point Likert scale ranging from strongly disagree = 1 to strongly agree = 7. To ensure questionnaire reliability and validity, pre-test and pilot test were conducted. The pilot test results were well above the recommended values suggested by Sekaran (2003). Data were collected from May 2018 to August 2018. Two urban centers in Pakistan, namely Faisalabad and Lahore, were selected for data collection. These two cities share boundaries with six cities and are the second and third largest metropolitan cities in Pakistan. Previous studies show that sales of energy-efficient home products (ACs, TVs, fans, washing machines, LED lights, fridges, and water pumps) have been growing fast in metropolitan cities (Ali et al., 2019b).

Prior researchers suggest a non-probability sampling technique when it is not possible to get complete information on the sample frame (Cheow et al., 2017). The current study uses purposive sampling because it is suitable fora theoretical generalization of research findings. Minimum size for a specific regions' consumer study is suggested to range between 200 to 500 respondents (Churchill and Iacobucci, 2006). Some 500 questionnaires were distributed among residents; 395 were returned. After careful analysis, 325 responses were verified as complete and valid for further data analysis. The study targets residents, with monthly income exceeding 50000 rupees,who are considered middle class in Pakistan (Ali et al., 2019a). Respondent demographic information is given in Table 1.

TABLE 1
Demographic Information

Categories	Characteristics	Frequency	Percentage (%)
Gender	Male	224	68.9
	Female	101	31.1
Age	18-29	14	4.3
	30-39	95	29.2
	40-49	122	37.5
	50-59	63	19.4
	60 and above	31	9.5
Education	Primary level or low	44	13.5
	Secondary level	72	22.2
	Graduation level	113	34.8
	Post-graduation or higher	96	29.5
Marital Status	Non-married	74	22.8
	Married- No Children	84	25.8
	Married- With Children	167	51.4
Household monthly income	50001- less 100000	49	15.1
	100001- less 150000	82	25.2
	150001 – Less 200000	176	54.2
	More Than 200000 Rs.	18	5.5

4. RESULTS AND ANALYSIS

4.1 DATA ANALYSIS

This study has used "Structural Equation Modeling" (SEM) to analyze the research model. SEM uses two techniques for analysis known as covariance-based SEM (CB-SEM) and Variance-Based SEM (VB-SEM) (Ringle, Wende, and Becker, 2015). Researchers have reported data normality issues in Social Science studies and advised to use Partial Least Square (PLS) method (VB-SEM) to overcome these normality issues (Osborne, 2010; Ramayah et al., 2010). Moreover, PLS is also suitable when a new variable is incorporated into the model (Chin, 2010). "SmartPLS 3.0" was employed to perform PLS-SEM(Ringle et al., 2015). For assessing the measurement and structural model, a "two-stage approach technique" in PLS-SEM was utilized (Becker, Klein, and Wetzels, 2012). The measurement model was tested (validity and reliability) according to the "two-stage analytical procedures" (Anderson and Gerbing, 1988). Moreover, the "structural model" was examined by testing the hypothesized relationship (Alzahrani et al., 2017; Hairr et al., 2016). To measure the

significance of path coefficients, we have used the "bootstrapping method" (5000 resamples) as suggested by Hair et al., 2016).

4.2 MEASUREMENT MODEL ASSESSMENT

In order to test the measurement model, the study confirms convergent and discriminant validity. To establish convergent validity, outer loadings, Average Variance Extracted (AVE), and composite reliability (CR) are assessed. All the items have outer loadings more than 0.55, AVE more than 0.5 and CR above 0.7 thresholds (Hair et al., 2016; Tabachnick and Fidell, 2007). (see Table 2).

TABLE 2
Results of Measurement Model

Constructs	Item	Loadings	CR	AVE
Perfectionist	PER1	0.762	0.820	0.532
(PER)	PER2	0.682		
	PER3	0.768		
	PER4	0.703		
Brand Conscious	BRD1	0.857	0.900	0.691
(BRD)	BRD2	0.853		
	BRD3	0.835		
	BRD4	0.778		
Novelty Conscious	NOV1	0.726	0.820	0.534
(NOV)	NOV2	0.734		
	NOV3	0.659		
	NOV4	0.800		
Recreation Conscious	REC1	0.552	0.834	0.562
(REC)	REC2	0.797		
	REC3	0.847		
	REC4	0.777		
Price Conscious	PRI1	0.799	0.835	0.560
(PRI)	PRI2	0.761		
	PRI3	0.787		
	PRI4	0.635		

TABLE 2 *(continued)*

Constructs	Item	Loadings	CR	AVE
Impulsive (IMP)	IMP1	0.784	0.802	0.509
	IMP2	0.828		
	IMP3	0.587		
	IMP4	0.626		
Confused by Overchoice (CBO)	CBO1	0.648	0.822	0.538
	CBO2	0.662		
	CBO3	0.805		
	CBO4	0.804		
Habitual/ Brand Loyal (HBL)	HBL1	0.790	0.816	0.601
	HBL2	0.888		
	HBL3	0.626		
Religiosity (REL)	REL1	0.725	0.836	0.507
	REL2	0.632		
	REL3	0.692		
	REL4	0.818		
	REL5	0.680		
Purchase Intention (PI)	PI1	0.806	0.886	0.612
	PI2	0.604		
	PI3	0.830		
	PI4	0.867		
	PI5	0.778		

For assessing discriminant validity, "Henseler's heterotrait-monotrait" (HTMT) criterion was used. "The discriminant validity is used to examine the correlations between the measures of potentially overlapping constructs"(Henseler, Ringle, and Sarstedt, 2014). HTMT criterion, which imposes a more stringent assessment, suggests that all constructs are distinctively different at HTMT 0.85 or 0.90 thresholds (Henseler et al., 2014). As presented in Table 3, the results are well in the given threshold.

TABLE 3
Discriminant Validity
Heterotrait-Monotrait Ratio (HTMT)

	BC	CBO	HBL	IMP	NOV	PER	PRI	PI	REC	REL
BC										
CBO	0.233									
HBL	0.413	0.296								
IMP	0.090	0.101	0.098							
NOV	0.305	0.831	0.442	0.069						
PER	0.244	0.494	0.655	0.112	0.559					
PRI	0.074	0.328	0.586	0.106	0.443	0.644				
PI	0.292	0.444	0.602	0.075	0.491	0.838	0.645			
REC	0.098	0.287	0.361	0.088	0.299	0.415	0.604	0.475		
REL	0.193	0.454	0.482	0.094	0.434	0.835	0.667	0.830	0.452	

4.3 STRUCTURAL MODEL ASSESSMENT

After confirming the measurement model's validity and reliability, an analysis of the structural model was performed. The structural model is measured with the help of path coefficients, the coefficient of determination, (f^2) effect size, and, finally, the predictive relevance (Q^2). Path coefficients are measured by a bootstrapping procedure (5000 resamples) (Rasoolimanesh et al., 2017). The results show that six hypothesized relations were significant (see Figure 2) i.e. religiosity value (β=0.393, t=8.776>1.64, p<0.05), perfectionism value (β=0.246, t=4.947>1.64, p<0.05), brand consciousness value (β=0.099, t=2.657>1.64, p<0.05), recreation consciousness value (β=0.084, t=2.387>1.64, p<0.05), price consciousness value (β=0.107, t=2.545>1.64, p<0.05), brand loyal/habitual value (β=0.087, t=2.289>1.64, p<0.05) and three were insignificant, namely, novelty consciousness value (β=0.039, t=0.884<1.64, p>0.05), impulsiveness value (β=0.029, t=0.693<1.64, p>0.05), and confused by over choice value (β=0.023, t=0.574<1.64, p>0.05). Table 4 shows the results of hypothesis testing and structural relationships. The R^2 (coefficient of determination) value of 0.595 for this model is more than a moderate threshold (Hair jr et al., 2016). Finally, the results of "the assessment of co-efficient of determination (R^2), the effect size (f^2), and the predictive relevance (Q^2)" of variables of this study are presented in Table 4.

Figure 2
Structural Model Results

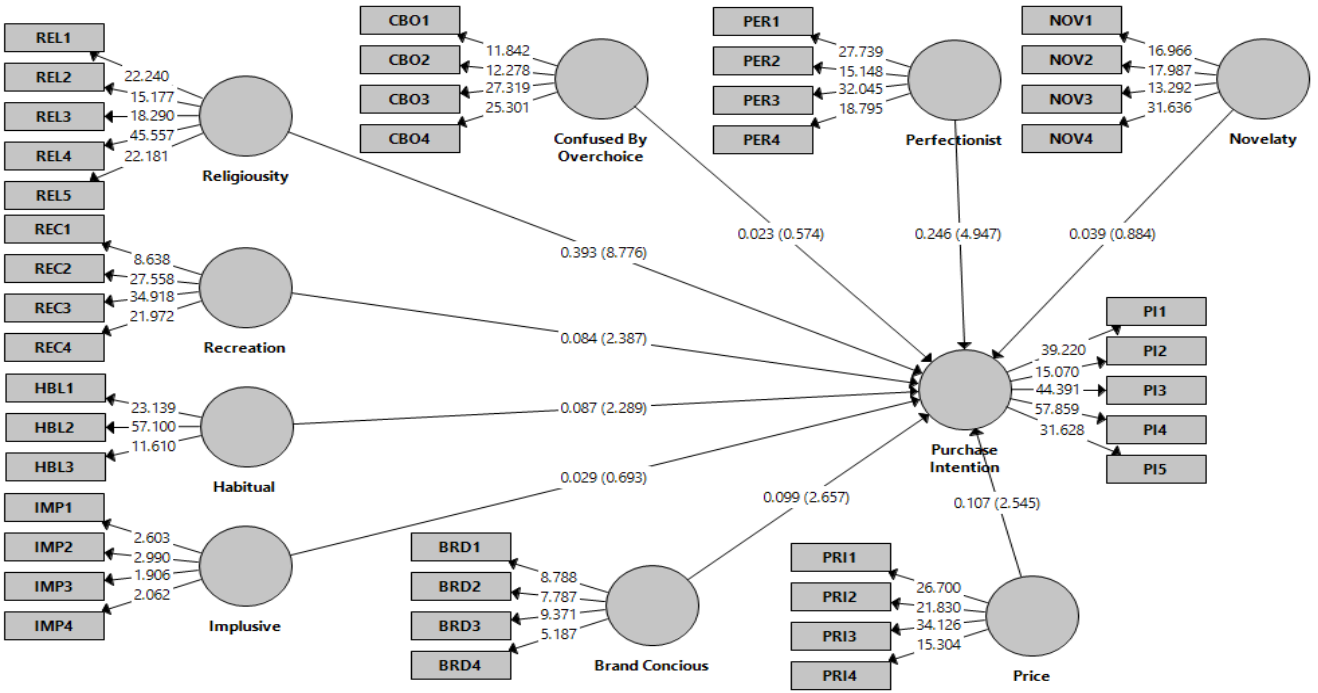


TABLE 4
Structural Model Results
Results of SEM and Hypothesis Testing

Hypothesis	Relationship	Path Coefficient	Std. Error	*t* Value	*p*-Value	Supported	R^2	Q^2	f^2
H1	PER->PI	0.246	0.050	4.947	0.000	Yes	0.595	0.330	0.075
H2	BRD->PI	0.099	0.037	2.657	0.004	Yes			0.020
H3	NOV->PI	0.039	0.044	0.884	0.188	No			0.002
H4	REC->PI	0.084	0.035	2.387	0.009	Yes			0.013
H5	PRC->PI	0.107	0.042	2.545	0.005	Yes			0.016
H6	IMP->PI	0.029	0.042	0.693	0.244	No			0.002
H7	CBO->PI	0.023	0.040	0.574	0.283	No			0.001
H8	HBL->PI	0.087	0.038	2.289	0.011	Yes			0.012
H9	REL->PI	0.393	0.045	8.776	0.000	Yes			0.194

5. DISCUSSION

This study evaluated the acceptability of CSI in the context of household energy-efficient behavior. Sales of home appliances are on the upsurge in Pakistan, and energy-efficient home products are gaining popularity. It is imperative to know the factors motivating residents to purchase energy-efficient home appliances. Data analysis confirmed that five decision-making styles have an impact on consumer buying intention. These five styles are Perfectionist, Brand conscious, Recreation conscious, Price-conscious, and Habitual/ brand-loyal. Further, Religiosity is also confirmed to have a positive association with residents' intentions of buying energy-efficient home appliances.

The first hypothesis proposed a significant association between 'Perfectionist' decision-making style and residents' purchase intentions toward energy-efficient home products. Consumers with such characteristics are attracted by the product quality. Their focus is to buy the best quality, and they do not settle for "good enough" products (Sprotlesand Kendall, 1986). The perceived product quality is most important to them. They seek top of the line appliances offering the best available features. These results are consistent with prior researches (Dimitri and Dettmann, 2012; Gaspar and Antunes, 2011). Gaspar and Antunes (2011) found that household consumers

seek "quality" while buying energy-efficient home appliances, whileDimitri and Dettmann (2012) concluded that green product consumer buying decisions are influenced by perceived product quality.

A growing trend of brand consciousness is also affecting household consumers' intentions of buying energy-efficient home appliances. Results of the current study confirm this relationship. Such a decision-making style is attributed to consumers who feel pride while buying expensive brands. Price is not of much concern for them, but they focus on purchasing well known and high price brands (Sprotles and Kendall, 1986). Famous home appliance brands such as Bosch, Haier, Kenwood, Gree, and so forth, are gaining more popularity in Pakistan (Business Recorder, 2018; Khan, 2018). Prior researches also support these results. Customers in developing nations show higher brand consciousness, and this trend is more visible in the case of green products (Mukherjee, Satija, and Goyal, 2012). Pakistan is one of the developing nations witnessing growth in per capita income (Iqbal et al., 2017). One of the main reasons for the escalating demand for green items is environment preservation and economic benefits mentioned by electronic companies. Moreover, different awareness campaigns were also launched in Pakistan to save electricity for the next generation, which motivates consumers to adopt eco-friendly products (The Express Tribune, 2017).

The results of this study confirm a positive association between recreational decision-making style and consumer intentions to buy energy-efficient home appliances. Recreation seeking consumers find shopping as a source of fun and pleasure. These results are backed by previous research findings (Prakash et al., 2018). Products that offer leisure and fun aspect become the target of such consumers. Customized design with room decoration, smart refrigerators, and elegant design can be used to attract customers. Moreover, digital display and interactive user interface in washing machines can be used to create a recreational element.

Current study proposes that price consciousness significantly impacts consumer intentions of buying energy-efficient home appliances. Results show a positive relationship between these two variables. "Price Conscious" consumers always want to maximize benefits from the purchased product. They want the best value for money. Such consumers look for the perceived value of the product. According to the McKinsey Global Sentiment Survey 2018, 53 percent of Pakistani consumers change their preferences to save money. The results of this study support previous research by Park

and Kwon (2017). They found that the perceived value of energy-efficient appliances is the primary determinant of consumers' purchase intentions. Rahnama and Rajabpour (2016) also found that price has a positive impact on green buying behavior. Marketers can attract such consumers by product discounts, sales, and added features.

Furthermore, the results of this study show that habitual or brand loyal consumer decision making style positively influences consumer intentions of buying energy-efficient home products. These consumers are very loyal to specific brands and continue to buy from the same stores (Sprotles and Kendall, 1986). This finding is consistent with previous research by Prakash et al. (2018), who found that brand loyal decision-making style significantly impacts green product buying intentions.

Three decision-making styles, namely "Novelty Consciousness, Impulsiveness, and Confusion by over choice," proved to be insignificant in this study. Previous researches support these results. A study by Anic and Suleska (2010) showed that women are more novelty conscious than men (Anic and Suleska, 2010), while 70 percent respondents of the current study are male. Similarly, previous studies show that consumers influenced by religiosity make decisions that oppose Impulsive behavior. A study by Alam, Mohd, and Hisham (2011) shows that highly religious people are less impulsive and more rational in their purchases (Shah Alam, Mohd and Hisham, 2011). Insignificant relation of "Confusion by over choice" also makes sense as the energy-efficient home products market in Pakistan is not very saturated, and consumers do not have a lot of available choices. When consumers are not overwhelmed with multiple choice and information, they do not get confused in their decision making (Jacoby et al., 1978).

The current study includes religiosity in conventional CSI to predict residents' intentions to purchase energy-efficient appliances. The results show a strong positive impact of religiosity on purchase intention, and these results are supported by prior researches conducted in the context of green buying behavior (Ali et al., 2019a; Hassan, 2014). This result clearly reflects the influence of religion on Pakistani consumers. The majority of Pakistani population (95 percent) population is Muslim, and religion not only controls the acts of their day to day life but also guides them toward specific consumption patterns in line with Islamic teachings (Yousaf and Malik, 2013). Teachings of environmental preservation form Islamic books encourage positive purchase intentions toward green products in Pakistan. Policymakers and government cadres should promote

these teachings, which can result in energy conservation. Integrated marketing communication programs can be initiated for promoting energy-efficient home appliances. These communication programs can involve different types of religious messages that address the energy conservation issue. Marketers can design their campaigns in line with such policies, which can attract new consumers to buy energy-efficient appliances.

6. IMPLICATIONS

The study has used a modified CDMS model to understand the consumer behavior among purchasers of energy-efficient home appliances in Pakistan. The results suggested a few implications for the managers and practitioners to consider while designing policies and marketing strategies. Manufacturers and marketers of such products should focus on producing high-quality products to attract new customers and increase their profits. In this regard, marketers should make serious efforts to promote and uplift their brands. They can associate a social identity with green consumers to make the psychological effect of their brands on consumers, as well-known brands gain more consumer trust than non-branded products (Prakash et al., 2018). Adoption of these products can be increased by adding recreational features. Designers and marketers of such products need to equip these with digital displays and interactive graphical user interfaces.

Energy-efficient home products' concept is relatively new in Pakistan, and proper information on such products, their energy-efficient potential and added features such as new touch panel screens, smart tab in refrigerators, and customized look would help attract new customers. Moreover, recreational features in products create curiosity in consumers, and they try to find the knowledge of products which leads to consumption. With the above mentioned feature, it is very essential to price green products correctly because Pakistani consumers are price-conscious, and they search for the best value for money. Keeping this in mind, overall benefit and cost analysis should be focused in advertisements to capture this consumer segment. Moreover, marketers should focus on increasing brand loyalty by offering different loyalty programs such as points for each sale, discount for repeated purchase, gift schemes, loyalty cards, and free coupons. More importantly, marketers need to highlight teachings on environmental preservation as a positive instrument to effect purchase intention of consumer ultimately leading toward buying green

products. Policymakers and government cadres should promote these teachings, which can foster energy conservation. Integrated marketing communication programs can be initiated in promoting energy-efficient home appliances. These programs can involve different types of religious messages that address energy conservation issues. Marketers can design their campaigns in line with such policies, which can attract new consumers to buy energy-efficient appliances.

7. CONCLUSION

Current research studies the purchase intentions of residents toward energy-efficient products through the unique perspective of religiosity and segmented consumers by their decision-making styles. By using purposive sampling, data are collected from the two most significant urban centers of Pakistan. Results from analysis of data prove that religiosity plays a vital role in shaping consumer intentions. Perfectionism, brand consciousness, recreation seeking, price consciousness, and habitual/brand loyal decision-making styles emerged as significant in the context of energy-efficient home appliances purchase intentions. This study provides a base for marketers to position their products to cater to the needs of respective segments. Marketers and policymakers should take high-quality measures while designing energy-efficient home appliances. By manufacturing high-quality products, they can achieve consumer loyalty, which leads to purchasing. Moreover, loyalty cards can be given to existing consumers to purchase other home appliances from the same company. Companies can also use differentiate on strategies to influence brand-conscious customers by highlighting clear differences in the brands. The government can also play its role by providing subsidy for energy-efficient home appliances. This initiative can lower manufacturing cost, and companies can offer different discounts to price-conscious consumers. The government can also tighten its policy on conventional electronic product import to promote energy-efficient home appliances.

8. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The current study is limited in terms of its generalization and it is suggested that future researchers should collect data from a wider sample and target both rural and urban populations. Second, this study used cross-sectional data to predict intentions of buying energy-efficient appliances; the sample also included respondents who were

merely browsing for such appliances intending to purchase in future. Further researches should consider conducting a longitudinal study focusing on how intentions lead to actual behavior. Moreover, religiosity and CSI explained 59.5 percent variance in behavioral intentions, which left room for other factors to influence, for example cultural dimensions, socio-economic factors, and so forth.

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