After-sales services, brand equity and purchasing intention to buy second-hand product

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Abstract

Purpose – This study aims to examine the concept of brand equity and willingness to buy second-hand products in the automobile context. The customer-based brand equity model is used as a theoretical lens to examine after-sales services, brand credibility and brand loyalty as drivers of brand equity and willingness to buy the second-hand product.

Design/methodology/approach – A survey questionnaire based on convenience sampling is used to collect the data from the car owners. A total of 433 survey responses were used to empirically test the measures and propositions by using structural equation modeling (SEM).

Findings – The findings suggest that after-sales services are a key factor in developing brand credibility and brand loyalty. Results are also in support of the positive and significant impact of brand credibility and brand loyalty on brand equity and willingness to buy second-hand products.

Originality/value – Brand equity represents a differential response and preference to marketing efforts that a product obtains as a result of its brand identification. Although practitioners are actively engaged to position themselves as a unique, attractive and strong brand, little is known about the equity of the brand in the case of second-hand products. This study provides an alternate branding view to the academic scholars and to the marketing manager as this study explicitly probes into the effect of after-sales services in developing brand credibility, brand loyalty, brand equity and wiliness to buy second-hand product as an outcome.

Keywords After-sales services, Brand credibility, Brand loyalty, Brand equity, Intention to buy the second-hand product

Paper type Research paper

1. Introduction

Branding is a powerful and time-honored tool that has been used successfully by a number of supply chain members to increase awareness, a loyalty which, in turn, motivation for purchases. Branding is one effective marketing strategy, which aims to convince consumers

that the brand is a symbol of quality or a proxy for quality which results in consumer confidence (Londoño-Roldan *et al.*, 2017). Interestingly, once brand awareness is established, consumers did not explore the additional information and purchase a known brand even if it is lower in quality because of associated cost for searching across the number of competitors is far greater than that of expected benefits. In marketing literature, the degree to which a brand has convincing power in its efforts is known as customer-based brand equity (Keller, 2016).

The concept of consumer-based brand equity provides a fertile ground for managers and a noteworthy research frontier for academicians worldwide (Reynolds and Phillips, 2005). The range and extended amount of literature devoted to the management, measurement and conceptualization of brand equity and presence of international consulting firms using their proprietary methods for measuring brand equity revealed the significance and implication of the concept for academic interest and the business world, respectively (Ahmad and Butt, 2012; Christodoulides *et al.*, 2006; Haigh, 1999). The literature on brand equity divided it into customer-based brand equity-considered as an outcome of consumer perception (Christodoulides *et al.*, 2006; Keller, 2016) and firm based brand equity-concerned with the monetary gain from brand worth (Christodoulides *et al.*, 2006; Simon and Sullivan, 1993).

Therefore, identification of the antecedent that resulted in favorable brand-related perception is of much more importance than measuring its monetary outcomes (Ahmad and Butt, 2012). Consumer-based brand equity (CBBE) offers a unique value to a service/product, which is credited in a favorable knowledge and association of consumers toward a brand (Keller, 1993). Acker proposed a five-dimensional model of Consumer-based brand equity, namely, brand association, brand awareness, brand loyalty and perceived quality and proprietary brand assets (such as channel relationships trademarks and patents). As the fifth dimension is considered outside the consumer perceptional domain, so it is ignored by the researchers (Buil *et al.*, 2012).

However, a rigorous review of proprietary brand assets/liabilities illustrated channel relationships as a construct that can be viewed, measured and interpreted from a consumer perspective, too. Channel relationship is of dire importance and relevant for the firms following a hybrid business model, referred to as a combination product and service developed for innovative offerings (Ulaga and Eggert, 2006). Channels relationship is a key pillar in the hybrid model due to the strategic shift of the firm from manufacturing dominant to service-dominant approach (Neu and Brown, 2008; Londoño-Roldan *et al.*, 2017; Ulaga and Eggert, 2006; Vargo and Lusch, 2004). Distribution channels are not only the source of distribution but also a channel for developing a long-term firm- Consumer's relationship (Ehinlanwo and Zairi, 1996), a critical factor for organizational success in general and their brands in particular. Furthermore, researchers also documented that channel exclusively associated with a brand (for instance, service provider or the authorized dealer in electron sector or automotive) are playing a twofold role, first keeping it operational and second building perception as the manifestation of the brand itself (Ahmed and Mohsin, 2012). Consequently, the willingness to pay a premium price for securing trustworthy after-sales service from a brand highlighted the significance and importance of after-sales services in buildings CBBE (Eagle *et al.*, 2003).

Various economically important industrial sectors operate on a hybrid business model such as automotive, original equipment, manufacturers and electronics. One of the classic examples of the hybrid business model in the automotive industry that heavily depend upon self-owned or a network of authorized dealers for its operations. The authorized dealers are responsible for facilitating sales and ensure excellent after-sale services. Ehinlanwo and Zairi (1996) reported that the effective provision of after-sale services significantly contributes to building customer brand related. Moreover, after-sales services are one of the key predictors for the purchase decision for the next vehicle (Mittal *et al.*, 2004).

Consequently, Ahmad and Butt (2012) argued that in a hybrid business setting where after-sales services are of paramount importance, the Consumer and the authorized dealer might significantly contribute to building Consumer-based brand equity. Therefore, it will be more fertile to develop structural relationships among after-sales services, brand credibility, brand loyalty, brand equity and willingness to purchase for hybrid firms separately (Datta *et al.*, 2017; Keller, 2016; Swoboda *et al.*, 2016).

Examining these structural relationships among key critical antecedents of consumer-based brand equity and willingness to purchase second-hand products may provide valuable insight to the marketers for the development of a holistic and integrated strategy in building consumer-based brand equity. This research provides empirical evidence for managers, the role of marketing construct on consumer preferential relations with a brand. As there is scarcity literature in the context of second hand/used product markets of second hand branded product so it will help gain more insight into this ambit. As a matter of fact, in the western world, the concept of second-hand or used item purchases is not practiced, but in the Pakistani context, this phenomenon is very much in practice. Mostly the construct of brand equity is researched in western markets. The dynamics of the western market are completely different from the Pakistani market. Consumer preferences in both regions differ significantly due to different demographic, psychographic, political, economic and cultural considerations. The findings of western research could not be generalized in the Pakistani context, which provides a space in this area of research.

Therefore, this research attempts to empirically test the structural relationship among antecedents of (after-sales services, brand credibility and brand loyalty) consumer-based brand equity and its outcome (willingness to purchase) in the automobile industry. The automotive industry is of profound potential to examine this model, as it is one of the classical and oldest examples of business operating by using a hybrid business model in modern economies, as well as a major driving force of industrial economies (Chattopadhyay *et al.*, 2010).

2. Literature review
2.1 Second-hand products
Second-hand products are defined as goods previously owned and/or used by someone before selling to current consumers. It may lead to fewer purchases of new products by customers, thereby using fewer resources of all types and producing less waste. Since the 2000s, stigmatization and renewed popularity of second-hand consumer products have increase and the market for used products has grown and attracted greater attention (Borusiak, 2020). People intended to buy second-hand products based on quality, brand and westernness, expression of moral identity, culturally perceived values, functional values and economic values. Some people buy them because of the factors of second-hand's purchases' uniqueness and authenticity (Beuving, 2004; Borusiak, 2020). Willingness or intention to buy second-hand products also depended on brand equity. Powerful brands have a good positioning in customers' minds and have better resale value. Customers usually import second-hand cars of good brands due to the positioning of those brands. Many countries impose bans on used vehicles to protect local manufacturers, but still used vehicles are a big market in developing countries (Borusiak, 2020). the development of the internet and different internet buying and selling sites also contributed to more intention to buy second-hand cars, online markets and a variety of business and industry-oriented services, allowed customers and businesses to directly sell their used assets and cars. Also, due to the pricing issues, intentions to buy second-hand cars are increasing (Thomas, 2003). In the past few years, trade-in second-hand cars have risen dramatically. Therefore, in a situation of economic prosperity, it is tenting to consider car dealers as income maximizers (Beuving, 2004).

2.2 After-sales services

Several industry reports indicate that the returns earn due to the facility of "ASS," i.e. 3s dealers, spare parts maintainers exceeds the industry value by three times of what initial purchase of product (Wise and Baumgartner, 1999; Saccani *et al.*, 2007). Market reports show that the sales after the services market generate five times more than a new product market (Chiguvi, 2020; Bundschuh and Dezvane, 2003; Saccani *et al.*, 2007). These limitations and problems in attaining product-based differentiation helped this automobile industry to recognize the huge potential in the domain of the service market (Godlevskaja *et al.*, 2011).

This recognition of after-sales services allows companies to build services networks on vigorous corporate models than ever before. Moreover, customer's readiness to buy for higher price instead of safeguarding their car service contract, guarantees, dependable and reliable repairs, i.e. "ASS" (after-sales services), after-sales services also assists the industry in sustaining growth in the business of after-sale service networks (Eagle *et al.*, 2003). Hence, the business area of ASS (after-sale services) is very vital for the decision-making process of the customer. Still, it is also a critical and significant front of returns for the automotive industry. Besides, the "ASS" after-sales service offers differentiation potential that the industry uses to strengthen brand equity.

In the domain of after-sales services, the literature identifies five facets that play a critical role in meeting the perceptional level of service (Asugman *et al.*, 1997; Ehinlanwo and Zairi, 1996). These services level comprises spare parts availability, maintainers' availability, guarantees, warranties, pricing policy, technical coverage, support and other mechanical service support. In the automotive industry, the elements of after-sales services become a core source of branding because it represents the continuous contact between brand and purchaser through an authorized network of dealers. From this context, we can logically assume that this interaction generates brand equity. This contact between the after-sales services dealer and customer generates multiple experiences and these experiences are considered to be a credible source of building brand equity (Keller, 1993).

This phenomenon forced the automotive industry to learn more knowledge in the domain of services to maintain the competitiveness of the brand and the automotive industry should move its industry model from being only a manufacturing center to a service-focused industry. Automotive industries work with a very simplistic tactic, just integrate the value of their offering/product and services in an optimum way for the principle consumers (Godlevskaja *et al.*, 2011). This technique also helps in finding the brand differentiation and additional cash flow for the brand (Kinsey, 2019; Godlevskaja *et al.*, 2011). The value impact of this research is that it incorporates and empirically tests after-sales service as the measurement variable of CBBE in the automobile sector.

2.3 Brand credibility

Generally, credibility is well-defined as the authenticity of an object at a given time and credibility is theorized into two main dimensions; trustworthiness and expertise. Therefore, brand credibility is defined as the authenticity of a product fact s and figures contained in a brand, which furthers explain the brand capacity to deliver the promised utility, i.e. expertise and the willingness of a brand, i.e. trustworthiness to constantly deliver what has been promised by the brand. Brand expertise and trustworthiness reflect the accumulated effects of past and present marketing tactics. The consistency of the marketing mix over time shows higher brand credibility and higher brand investment (Hussain *et al.*, 2019; Erdem and Swait, 1998).

The capability of an organization to provide the promised features and characteristics of their product and services offered by the organization is known as Brand Credibility (Erdem *et al.*, 2006). Aaker (1996) stated brand credibility as one of the most key antecedents of brand equity. According to the signaling theory, brand credibility supports Consumer-based brand equity. Signaling philosophy proposes that credibility can help in creating brand equity (Erdem and Swait, 1998). Brand credibility plays a pivotal role for brands to enjoy lower information gathering, processing, costs and have lower perceived risk (Erdem and Swait, 2004). In addition to this, higher the credibility of a brand can help in increasing consumer views of product quality and features by manipulating their psychophysical processes whereby objective quality levels are transferred into perceived, subjective quality levels. By positively affecting quality perceptions, information gathering and processing costs and the perceived risk, brand credibility upturns the customer anticipated utility of a brand, thus adding consumer value to a brand. So it is evident that the most important is credibility for brands, without credibility, even the most trustworthy endorser cannot help in evolving brand equity. This rationale is similar to an old saying that "advertising can't save a poor product." Pappu and Quester (2006), Yoo and Donthu (2001) supported the influence of brand credibility on customer-based brand equity.

When the users of brands are uncertain and unclear about the brand and the marketplace is categorized by lopsided facts, i.e. the firm knows additional of their product offerings than does a user's, then brands can assist as signals of product positions (Bougoure*et al.*, 2016). Brand credibility serves as the strongest product signal in positioning the brand in the mind of consumers, apart from signaling product quality technique a firm uses different tactical marketing elements such as high pricing of the product, sale after services, other certain warranties and different distributing channels. All these measures taken by the experts may be credible or not, subject to the marketplace settings, which include competition and user behavior. Nevertheless, what cliques brand apart from the specific marketing techniques as trustworthy and credible signals is that the prior embody the aggregate result of former promotional tactics? This historical notion that credibility is based on the sum of past behaviors has been referred to as reputation in the information economics literature (Mandler *et al.*, 2020; Herbig and Milewicz, 1995).

2.4 Brand loyalty

In the literature of marketing and especially in brand equity, brand loyalty consider as a backbone on which the concept of brand equity stands. Therefore, it is next to impossible to measure brand equity without investigating loyal consumers because for building and sustaining brand equity, the loyalty facet is a core foundation for brand equity (Gil *et al.*, 2007; Xu and Chan, 2010). In the domain of brand loyalty, most scholars are settled on the opinion that the construct of loyalty can be best described in the perspective of attitudinal and behavioral dimensions. The attitudinal perspective of BL is the Consumer's propensity to be faithful to brands that usually stay in the intention to buy a list of a consumer (Oliver, 1999; Yoo and Danthu, 2001). In the perspective of behavioral loyalty, loyalty is revealed by tangible consumption behavior. Hence, BL enhances the worth of the brand, loyalty makes sure habitual and repeat purchases, over and over an extended period of time (Kaur *et al.*, 2020).

The propensity of a buyer to be faithful or loyal in terms of frequent purchase or intent to support a particular brand. This tends the consumer behavior to primarily choose a brand and loyalty is a significant antecedent of brand equity; loyalty is grounded in consumers' perception. The loyalty of a customer always helps to change the behavior in a positive way such as positive purchase intention, willingness to buy at higher prices (Yoo and Danthu, 2001).

The literature on brand loyalty has been heavily discussed in the domain of brand and consider as one of the most important pillars of the Consumer-based brand equity model. The literature concept of brand equity is expanded into two wings, one of the loyalty concepts scopes the behavioral side and the other one deals with attitudinal loyalty toward a brand. Behavioral loyalty encompasses consumer buying behavior (Noone and McGuire, 2016). Brand loyalty can easily be measured with the help of replication of buying behavior of the Consumer, this behavior of replicate purchase shows that the Consumer is loyal to the brand (Love *et al.*, 2016). According to, quality level in the product helps in engaging a customer in repeat purchase behavior, it is the quality, which engages the Consumer loyal with the brand and on the other side of the quality utility of a consumer decrease's Consumer motivates to switch toward the competitor brand.

Lombart and Louis (2016) suggested that two main approaches to increasing customer loyalty with the brand are "behavioral, attitudinal and mixed." Attitude is connected with judgment toward that particular product or service to buy or not and behavioral approach is the consumers' rendezvous of replicate purchasing behavior toward that brand. This is brand loyalty, which engages the consumers to do recur purchasing that brand (Khamitov *et al.*, 2019).

Brink *et al.* (2006) suggested that brand loyalty is a key factor for firms to improve firms' "financial performance." Due to these, firms charge a high price for the best products and services and loyal consumers willing to buy at higher rates.

2.5 Consumer-based brand equity

Fields such as cognitive psychology and behavioral approaches toward economics given birth to consumer-based equity of the brand. Cognitive psychology has added much to the field where it emphasizes structures of the memory (Asker, 1991; Keller, 1993). Brand assets of a firm derived from such things as patents and trademarks add to brand awareness and brand equity of the firm among the consumers. Keller (1993) has defined Consumer-based approaches as derivative from the difference between the marketing of the brand and the memory retained by the Consumer of the equity of the brand. According to the research of Keller, a consumer who can retain the name and positive attributes of the brand equity from the matrix of marketing can retain higher brand equity as compared to a consumer who is not able to retain the name and information of the product from the marketing mix. According to the scholar, brand equity is created in the mind of the Consumer through associations with the brand (Khamitov *et al.*, 2019).

At the same time, the imperfect nature of the market also gives rise to brand equity research (Erdem and Swait, 1998). As a part of this system, signals are used to transfer information by the economic agents about specific characteristics. A brand signal is a cumulative effort of the total sum of the past and present activities of marketing of the firm. The information which is not perfect creates uncertainty in the perception of the consumers. Value among the consumers is generated by a signal of the brand, which is credible by reducing risks; reducing the costs incurred in search of information and creating perceptions of attributes, which are good (Erdem and Swait, 1998). Under such an approach, equity of the brand based on consumers is generated through signals of the brand to the consumers (Algharabat *et al.*, 2020; Erdem and Swait, 1998).

It becomes clear from the research that psychology-based and economics-based approaches on the information approach are complementary to the research of each other. A definition of Consumer-based equity of the brand will consist of elements from both the information generation sources, allowing the positive elements from both the fields to combine so that a firm could earn more and generate more financial resources.

Although brand equity has been defined in a multiplicity of ways such as by Aaker and Equity (1991) and Keller (1993), yet there has been no conclusive methodological approach that has been developed to measure it. A high number of complex statistical approaches have been developed which have been used to measure the intangible and unquantifiable properties of brand equity (Park and Srinivasan, 1994; Leuthesser *et al.*, 1995), which makes it difficult for the statisticians and consumers to adopt the method. The differentiation is based upon either a direct or indirect approach to be used. Direct approaches are measurements of brand equity, which are used to statistically study the direct phenomenon in the real world such as preferences of the consumers (Srinivasan, 1979; Park and Srinivasan, 1994) or the derived utilities of the consumers (Kamakura and Russell, 1993). Indirect measures do not study the impact directly but rather study the effects of the equity through manifestations, which are demonstrated (Algharabat *et al.*, 2020; Yoo and Donthu, 2001; Pappu *et al.*, 2005).

2.6 Willingness/intention to buy
The willingness to buy a product is stated as a customer's willingness/intention to buy the desired brand over other brands of the almost same feature, size/quantity and quality. Brand loyalty and brand equity are some of the strongest predictors which create intention and positive word of mouth (Evgeniy *et al.*, 2019; Jiang and Rosenbloom, 2005). Though this "intention/willingness to buy construct" is conceptualized as a "core consequence" of Consumer-based brand equity. Sometimes decision or buying process of a customer can be complex because of uncontrollable factors, product information about the features of a brand or product that suites the utility of a consumer. These features can be experienced through different channels such as the credibility of a product, word of mouth and other informational avenues, these experiences the Consumer to reach a purchase decision (Sarwar *et al.*, 2019; Jiang and Rosenbloom, 2005). According to Kotler (1999), purchase decision involves five stages; recognizing the problem, research for information of product, evaluate other options and decision about purchase and behavior after purchase.

The dimension of purchase willingness or purchase intention has been a prevalent nature in the ambit of economics and marketing. Marketing scholars mostly used this willingness/intention to buy to predict the sale and demand for durable goods (Sarwar *et al.*, 2019). According to the National statistic institution of France, purchase intention is a good predictor for forecasting durable goods. However, some scholars question the predictive validity of purchase intention, like Juster (1966) claims that purchase intention or willingness is not the accurate predictor of the following purchase (Figure 1).
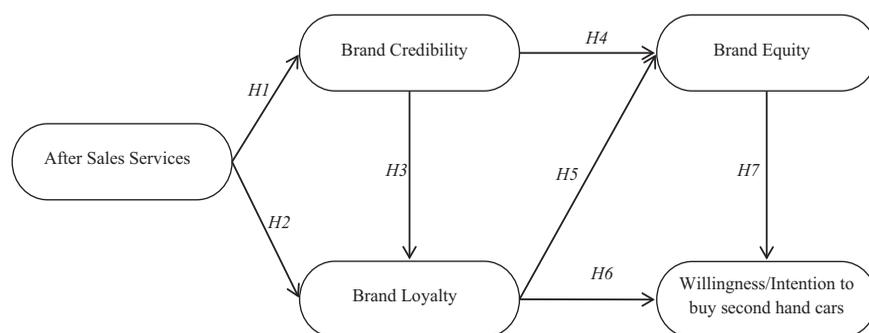

Figure 1.
Theoretical
framework

Hypotheses

H1. After-sales services have a significant impact on brand credibility.

H2. After-sales services have a significant impact on brand loyalty.

H3. Brand Credibility has a significant impact on brand loyalty.

H4. Brand Credibility has a significant impact on brand equity.

H5. Brand loyalty has a significant impact on brand equity.

H6. Brand loyalty has a significant impact on Willingness/intention to buy a second-hand car.

H7. Brand Equity has a significant impact on Willingness/intention to buy.

3. Research methodology

Survey design, with the help of a self-administrated questionnaire, was used to achieve the research objectives. To measure the constructs of the variables the items were adapted from different studies and the type of data was nominal and was measured on the Likert scale of 5. The brand equity, brand loyalty was adapted from Yoo *et al.* (2000). Brand credibility was adapted from Erdem *et al.* (2006). After-sales and services were adapted from Asugman *et al.* (1997) and, intention/willingness to buy was adapted Sarwar *et al.* (2019).

The population for this study consisted of automobile owners. Data was collected from the automobiles of different cities of Pakistan. A convenience sampling technique was adopted to collect data from the respondents. A total of 500 questionnaires were distributed, out of which only 433 valid responses (response rate of 86.66%.) were considered for data analysis. The frequency distribution showed that 78.06% of respondents were male and 21.94% were female. In total, 4.1% of respondents were below the age of 25, 29.3% of respondents were of the age group 25 to 30. In total, 52.7% were of the age group 30 to 35 and 13.9% were above the age of 35. Out of 433 respondents, 62.1% had Graduation, 29.7% had Masters and only 8.2% had MPhil/PhD Income profile of the sample indicated that 2.5% were earning below 80,000, 29.7% of respondents had the income between 80,000 to 120,000 rupee, 40.4% were earning rupees 120,000 to 160,000, 27.4% were earning above 160,000.

4. Data analysis

A series of data analysis tools were performed before conducting covariance-based structural equation modeling. Initially, data were tested for missing values, outliers and normality missing. Valid responses without missing values and outliers were tested for normality of data. Results showed that all the items fell within the expected range of ±3Skewness and Kurtosis indicating that data is normal. Data was tested for common method bias by using a one-factor test by Harman. Results showed that the maximum variance explained by a signal factor was 17.25%, which is less than 50%, representing that data is free from common method biases. Data was also tested for multicollinearity by estimating the variance inflation factor (VIF). Results showed that VIF for all observed and latent variables were within the range of 5 representing that there was no issue of multicollinearity.

4.1 Descriptive statistics and correlation analysis

Descriptive statists and correlation coefficients were estimated for the overview and relationship of study variables, respectively. The results shown in Table 1 illustrate that a correlation exists between variables.

4.2 Confirmatory factor analysis

Confirmatory factor analysis (CFA) is used to establish the convergent and discriminant validity of measurement scales. The CFA is an indicator to ensure full representation of the underlying variables with the observed variables (Steenkamp and Baumgartner, 2000). Fit indices are the indication of model fitness fit indices. The proposed indices that are being used for the good fit model in the undertaken study are matched with standard values of CMIN/DF ≤ 3, the goodness of fit index, i.e. (GFI) and adjusted goodness of fit index (AGFI) should be ≥0.9; normative fit index (NFI) and comparative fit index (CFI) should be≥ 0.9. Factor load is ≥0.5, for Ave and CR ≥ 0.50 and ≥ 0.7, respectively, are the threshold values (Awang, 2015).

For CFA, a measurement model was drawn. The measurement model has consisted of 5 latent and 24 observed variables. The CMIN/DF is 3.28, GFI = 0.89, AGFI is equal to 0.86, which is a reasonable fit. CFI is 0.82 and NFI is 0.77 representing that the model is 76.7% fit, RMR value is 0.07 and RMSEA for this research is 0.06, meeting the threshold approximately. Respecification was done in the model to make results more accurate. After the specification of the model, the values were perfectly falling in the threshold limit. The CMIN/DF is 2.59, GFI= 0.92, AGFI was 0.91, which is perfectly fit. CFI= 0.89, where NFI

Factors	Indicators	Factor loadings	AVE	CR	Cronbach's alpha
BCRD	BCRD1	0.825	0.582	0.893	0.903
	BCRD2	0.742			
	BCRD3	0.762			
	BCRD4	0.752			
	BCRD5	0.753			
	BCRD6	0.742			
	BCRD7	0.762			
SAFS	SAFS1	0.745	0.577	0.891	0.917
	SAFS2	0.775			
	SAFS3	0.712			
	SAFS4	0.790			
	SAFS5	0.758			
	SAFS6	0.775			
BLOY	BLOY1	0.813	0.620	0.830	0.858
	BLOY2	0.745			
	BLOY3	0.803			
BEQU	BEQU1	0.744	0.611	0.863	0.882
	BEQU2	0.813			
	BEQU3	0.823			
	BEQU4	0.744			
WBSP	WBSP1	0.787	0.634	0.874	0.908
	WBSP2	0.815			
	WBSP3	0.796			
	WBSP4	0.787			

Notes: CMIN/df = 1.824; GFI = 0.926; AGFI = 0.906; CFI = 0.946;;PCFI = 0.809; RMSEA = 0.403

Table 1.
Confirmatory factor
analysis of study
variables

was 0.83 representing that model is 83% fit, RMR for the specified model was 0.051 and RMSEA for the undertaken research is 0.048 meeting the threshold. The results were depicted in Table 2. For convergent validity, two criteria have to be fulfilled that is AVE should be greater than 0.50 and the second criteria are that composite reliability, i.e. CR, should be greater than 0.60 or 0.70. The results regarding the square root of AVE and the relationship among the study were also in support of discriminant validity (Fornell and Larcker, 1981).

4.3 Structural model

The hypothesized model was tested by AMOS 20 for analyzing the relationship among the latent variables. Five model fit indexes (χ/df, GFI, AGFI, CFI, PCFI and RMSEA) that were commonly used in literature were used to test the model fitness. These indexes of the model fitness recommended in the literature are summarized in the table. In practice, Chi-square/degrees of freedom less than 3, GFI, NFI, CFI, IFI, RFI greater than or equal to 0.9 and AGFI greater than 0.8, CFI greater than or equal to 0.95 and RMSEA less than or equal 0.08 are considered indicators of good fit (Jackson *et al.*, 2005).

4.3.1 Model fit measures. This research was conducted to empirically confirm that the proposed model for the role of brand equity and brand loyalty in willingness to buy second-hand products. All measures fall in the acceptable level of reliability, which permitted the second stage of Model testing and exploring the relationship between constructs (BCRE, SAFS, BLOY, WBSP, BEQT). Three different models were tested to predict the fitness of the model and hypothesis. The first model was predicted for SUZUKI, results revealed that CMIN/df was 1.962, GFI was 0.893, AGFI was 0.840, CFI was 0.965, PCFI was 0.742 and RMSEA was 0.076 which shows acceptable results. The second model was predicted for TOYOTA; results revealed that CMIN/df was 2.149, GFI was 0.910, AGFI was 0.850, CFI was 0.968, PCFI was 0.704, RMSEA was 0.083 which shows acceptable results. In the third step, an overall model was predicted for both SUZUKI and TOYOTA users, results revealed that CMIN/df was 2.106, GFI was 0.942, AGFI was 0.912, CFI was 0.980, PCFI was 0.754, RMSEA was 0.058 which shows acceptable results (Table 3).

4.3.2 Hypotheses testing. The model was tested by using the data obtained from 433 respondents. Hypothesis testing was performed through SEM path analysis. For hypothesis

Variables	Mean	SD	AVE	SQRT AVE	BCRE	SAFS	BLOY	WCSP	BEQT
BCRE	4.85	0.95	0.58	0.76	(0.76)				
SAFS	5.38	1.18	0.57	0.75	0.59**	(0.75)			
BLOY	5.22	1.20	0.62	0.79	0.58**	0.55**	(0.79)		
WBSP	4.64	1.53	0.61	0.78	0.54**	0.57**	0.45**	(0.78)	
BEQT	4.74	1.55	0.63	0.79	0.54**	0.311**	0.634**	0.594**	(0.79)

Notes: *$p < 0.05$, **$p < 0.01$. Values in parentheses "()" are the square root value of AVE of given variables

Table 2.
Descriptive statistics and correlation analysis of study variables

Models	χ^2	Df	P	CMIN/df	GFI	AGFI	CFI	PCFI	RMSEA
SUZUKI	137.332	70	0.000	1.962	0.893	0.840	0.965	0.742	0.076
TOYOTA	101.022	47	0.000	2.149	0.910	0.850	0.968	0.704	0.083
Overall	147.411	40	0.000	2.106	0.942	0.912	0.980	0.754	0.058

Table 3.
Results of the fit measures for structural models

testing, we have run 3 models, one for Suzuki, Toyota and the overall. Overall results were depreciated in Table 4 showed that results were in favor of the proposed relationship.

5. Discussion and findings

After-sales services comprise of technical support, maintenances and spare parts availability reinforce the brand credibility of a brand and ensure the expertise and trustworthiness of a brand this helps in positioning the brand in the mind of a customer and creates credibility after sales and services also help in creating a positive feeling, emotional attachment with a brand which, in turn, creates brand loyalty. These paths mentioned in the proposed model help the brand to create primary market support, as well as secondary market supports for their new and old/used products, which causes the stability of a brand market and ensures extra cash flows for the brand.

Once a brand product market get stable in primary or secondary market it produces huge returns for the company and, as well as for consumers like in the context of the automobile industry in Pakistan cars are consider as an investment and especially Suzuki and Toyota; every person gives priority to these two brands and the monetary value of these always increases no matter cars are old or brand new, this happens because of brand credibility and loyalty at a dual-level. Maintenances and technical support for both brands are easily available at every corner of Pakistan. So this study proves that after-sales services help in creating loyalty and equity at the dual-level.

This stability further helps the market and creates a blind trust on the brand and increase the demand of second-hand product of the SUZUKI and TOYOTA in the secondary market and pondering point of the study is that the prices of these cars are considered high very close to those of brand new cars

5.1 Contributions

5.1.1 Contribution to the literature of marketing. This investigation contributes to the marketing literature by examining the market dynamics of the automotive industry. In the context of the automotive industry, branding is built on dual levels, which add uniqueness to the literature of brand marketing. This inquiry shows how brand marketing influences the market thinking of consumers and companies level, which, in turn, increases the market share of the brand. This concept of dual strategic move puts the marketing scholars to make aggressive and hybrids approach for the advancement of the marketing domain. This concept helps in the advancement of the knowledge area and the strategic marketing process for scholars.

Path	Model SUZUKI	Model TOYOTA	Model overall
BCRE ← SASF	0.874**	0.644**	0.799**
BLOY ← SASF	0.386*	0.522**	0.267*
BLOY ← BCRE	0.683**	0.442**	0.723**
BEQT ← BCRE	0.531**	0.133*	0.540**
BEQT ← BLOY	0.398**	0.689**	0.379**
WBSP ← BLOY	0.581**	0.940**	0.749**
WBSP ← BEQT	0.088*	0.063*	0.077**

Notes: *$p < 0.05$; **$p < 0.01$

Table 4.
Unstandardized coefficients for a casual relationship between paths

5.1.2 Contribution to the literature of brand equity. This research contributes and adds significantly to the literature of brand equity by identifying the expanded five-factor Consumer-based brand equity Aakar's model and also identifies the hybrid brand equity model at multiple levels. This dual-brand equity approach explains better market dynamics, sources and outcomes.

5.1.3 Contribution to the literature of willingness to buy second-hand brand. This inquiry adds to the knowledge domain of willingness to buy through critical analysis of the significant market of second-hand products. Study finding explains that economic, political and social dynamics play a critical role in the purchase of second-hand product only if the producer of the brand safeguarding the consumer interest; it may be intrinsic or extrinsic, the belief system, norms and especially the economic interests. Within the segments of Pakistani society, they seem to be very price sensitive and always calculate the outcome of their purchase decisions, so if the producer provides all these things, then the brand's willingness to buy increases.

5.2 Implications
5.2.1 Academic implications. This inquiry provides a very handful and valuable contributions to academic scholars. This research uses the expanded proposed Customer-Based Brand Equity model of Aakar in the context of the automotive industry of Pakistan. This context is special in the sense of brand equity because, in this case, equity generates at multiple levels, first at the level of company product (cars), second at the service level which offers at authorized service outlets and the end product acceptability at secondary market increases. The approach use in the investigation is unique and comprehensive because it explains the sources of brand equity of second-hand cars (Suzuki and Toyota) with the help of loyalty and credibility constructs. On the other hand, it also explains the role of services for the product available in the market. In the last, it also helps in analyzing the outcome of equity by explaining the relationship between brand equity and purchase decision of second-hand products. This research also contributes in terms of literature advancement opportunity for future scholars toward second-hand product market; it also provides a critical analysis of the literature review of the expanded model of Aakar.

5.2.2 Managerial implications. This study provides solid grounds for managers who want to move strategically and want to improve their marketing productivity in a highly recessionary environment. In the era of globalization, brands face multi-facet challenges in terms of new entrants in the market, technology imitation and flattering demand areas. Managers should implement the strategy of the dual-level building of brand equity, first through their initial product offerings and then at the secondary market level through the facility of after-sales services. As the service level industry is five times bigger than a product level so managers should focus on both ends to increase the cash flow of the company which contributes to the financial equity and also at customer contact level it increases the brand acceptability in the market which, in turn, creates a barrier for the new entrants and improve brand equity. Moreover, the customer contact level helps the manager to solve problems of their customer which, in turn, improve the problem-solving capabilities of managers and also helps the managers to understand the black box of their customer more easily which further helps in developing new product according to the need of target segments.

5.3 Limitations
However, an intense consideration has been taken to make the study profound and objective, but as in the cases of other inquiries, this inquiry also has some limitations. The most

prominent limitation of this study is the sample size; a larger sample size with more cities of Pakistan included will have a more appropriate representation of the Pakistani automotive industry. Besides the earlier limitation, one should go for longitudinal analysis and cross-comparison of different products that have some similar nature and intensity of after-sales services and willingness to buy, which helps in establishing this model more rigorously and vigorously.

5.4 Future recommendation
This investigation suggests very handy insight directions for scholars. This research focuses on the driving forces that trigger the Consumer's willingness to buy the second-hand product. It is highly recommended that in the future scholar should test the model at the aggregate/group level and also study that why the prices of second-hand cars considerably high or sometimes higher than a new car and test this model in different cultural regions with more product categories to further validate the concept of dual brand building technique. It is also recommended to check the economic variable like price sensitivity and also check materialistic and emotional loyalty in the future because market dynamics shows that the market is price sensitive and people consider cars as an asset but as compare to the western world, so definitely there is a change in baseline thinking of our Pakistani culture.

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