Impact of Brand Equity on Purchase Intention of Smart Phones

Dhruba Kumar Gautam[a], Sajeeb Kumar Shrestha[b]

[a]Tribhuvan University, Faculty of Management, Kathmandu, Nepal
[b]Tribhuvan University, Faculty of Management, Kathmandu, Nepal

Abstract

This study aimed to examine the effect of brand equity dimensions measuring the impact of brand equity on purchase intension of smart phones in Kathmandu. Descriptive and causal research design was used for the study. Structured questionnaires were administered for collecting data. Structured equation modeling was applied for validating the proposed model and measuring the influence of brand equity dimensions on purchase intentions of smart phones. Independent sample t-test and ANOVA was used to test the effect of moderating variables on purchase intention. The research fount brand loyalty and brand awareness were the influential factors for purchase intention of smart phones. Females performed significantly more than males in purchase intention. Qualification had no significant differences on purchase intention of smart phones. The findings of this study add values to the literature and its applicability of brand equity, brand awareness and purchase intensions which helps to formulate polices and strategies.

Ⅰ. Introduction

Achieving success in this competitive business world business organizations need efficient tools for attracting, retaining, and increasing the consumers having powerful brand equity to carry out their goals. The concept of the brand equity was created about 20 years ago as a basic concept in the marketing. The brand equity refers to the part of the product that is concerned to the brand. It is simply defined as intangible and essential properties of the company which is acquired through the customers' attitudes and behavior. Aaker (1991) made ice break among the literatures and conceptualized the brand equity model that

---

[a] First Author, E-mail: dhrubakumargautam@yahoo.com
[b] Corresponding Author, E-mail: drsajeeb@gmail.com

gave pathway to researchers and practitioners for measuring brand equity. It is the common model for researchers as of Kapferer (1997) and Mela, Gupta and Lehman (1997) whose models highlights what Aaker (1991) emphasizes. Aaker (1991) model of brand equity is the central framework in the field of brand management.

Keller (1993) remarks customer based brand equity as the differential marketing effect of brand knowledge on consumer response to marketing of a brand. It is based on brand recognition and recall. Farquhar (1989) depicted that brand equity is an added value that a brand grants to a product. Aaker (1991) argued brand equity as a set of properties and debts related to the brand. Gil, Bravo, Fraj and Salinas (2007) confirmed that the brand equity is a value added to the product by brand equity. Generally, the brand equity is the consumers' understanding of all advantage and superiority which a brand carries in comparison with other brands.

Ⅱ. Literature Review and Statement of the Problem

1. Literature Review

Brand awareness is where brand becomes top of mind in consumers (Kim, Kim, Kim, Kim & Kang, 2008); Teuminen, 2000). It means when people thing the product category brand comes first in their mind. Aaker (1991) argues that brand awareness stands for customer's ability to recall the brand. Keller (1993) depicts when consumers completely know about the products and relates some strong association in the memory then brand equity builds. It affects brand behavior of consumer (Aaker, 1996; Kapferer, 2008).

Brand associations are the consumer's linkage like product characteristics, brand name and price to the brand (Aaker, 1991). The link resides in consumer's mind (Keller, 2008). Consumer uses it to develop brand knowledge (Yoo & Donthu, 2001). Aaker (1991) depicted brand associations is used for processing, organizaing and evaluating the information in the consumer's mind that help to take the purchase decision easily.

Perceived quality is the overall performance or assessment of brand perceived by consumer (Keller, Aperia & Georgson, 2008). Different factors like customer's own experience, price, brand image and marketing activities shape how consumer perceived toward the brand (Yoo & Donthu, 2001; Zeithaml, 1988). Consumer differentiate product based on perceived quality (Keller, 1993).

Brand loyalty is consumer's strong commitment to a brand that they would purchase the brand consistently in the future (Oliver, 1997). Consumer purchase the same brand again and again (Chaudhuri & Holbrook, 2001). Brand becomes the consumer's first choice to purchase (Yoo & Donthu, 2001). Keller and Lehmann (2003) argued that if customer possessed a strong commitment to one brand, there is least chance to brand switching.

Purchase Intention means customer want to purchase the brand and purchase

again and again (Day, 1969). Purchase intention is used to measure consumer's behavior pattern (Fishbein & Ajzen, 1975). Purchase intention and actual purchase behavior is highly related (Fishbein & Ajzen, 1975; Oliver & Bearden, 1985). Purchase intention is like a decision a customer purchases a brand. Dodds and Monroe (1985) argued that purchase intention is a behavior tendency of a customer who is intended to purchase a product. Previous studies and researches stated that purchase intention is an important indicator of actual purchase behavior. Farquhar (1989) stated that perceived quality is essential for developing a positive evaluation of a product or brand in customer's memory.

Porter (1974) argued purchase intention is people not only purchase the particular brand but also have shown positive attitude to brand category. An increase in purchase intention means an increase in the possibility of purchasing particular brand (Dodds, Monroe & Grewal, 1991; Schiffman & Kanuk, 2007). Purchase intention is an indicator for consumer behavior (Ajzen & Fishbein, 1980; Schiffman & Kanuk, 2007). Armstrong, Morwitz and Kumar (2000) indicated that purchase intention are intended for predicting a better sale processes than former selling ones.

Vinh and Huy (2016) found that perceived quality, brand association and brand loyalty had positive effects on overall brand equity. But brand awareness had not shown significant effect on overall brand equity. Overall brand equity had positive impact on brand preference and purchase intention. Brand preference had positive influence on purchase inten-

tion. Khan, Rahmani, Hoe and Chen (2015) confirmed that causal relationship among brand equity dimensions and purchase intention were established. Perceived quality and brand loyalty had shown significant influence on purchase intention. Naeini, Azali and Tamaddoni (2015) found perceived quality had shown significant effect on creation of brand equity and brand equity had the highest effect on purchase intention.

Naing and Chaipoopirutana (2014) declared positive and significant relation was found among perceived quality, product image, consumer aspiration, emotional value, attitude towards product and purchase intention. Negative relation was found between consumer uncertainty and purchase intention. Santoso and Cahyadi (2014) found that brand associations and brand loyalty had shown significant effect on purchase intention. But, brand awareness and perceived quality had no shown significant effect on purchase intention.

Malik and Ghafoor (2013) found brand awareness and brand loyalty had strong positive association with purchase intention. Latwal and Sharma (2012) found that brand association, perceived quality and brand loyalty had shown significant effect on purchase intention to car owners. But, brand awareness had not shown effect on purchase intention. Jalilvand, Samiei and Mahdavinia (2011) researched on the effect of brand equity components on purchase intention as an application of Aaker's model (1991) in the automobile industry. It was found that brand awareness, brand association, brand loyalty and perceived quality have a significant effect on consumers' intention to pur-

chase automobiles.

2. Statement of the Problem

Consumers have shown increasing interests in mobile phones category in the recent days. They want to purchase branded smart phones from entry levels to high end gadgets. There are varieties of smart phones available in the Nepalese markets. Purchasing a smart phone has become fulfilling utilitarian need to hedonic need of the consumers. Smart phone has become a major part of urban and rural people's lifestyle. Vinh and Huy (2016) found that perceived quality, brand association and brand loyalty had positive effects on overall brand equity. Khan, Rahmani, Hoe and Chen (2015) confirmed causal relationship among brand equity dimensions and purchase intention. Perceived quality and brand loyalty has shown significant influence on purchase intention. Naeini, Azali and Tamaddoni (2015) argued brand equity had the highest effect on purchase intention. Fianto, Hadiwidjojo, Aisjah and Solimun (2014) depicted that brand image had a significant role in influencing the purchasing behavior. Naing and Chaipoopirutana (2014) showed relationship among perceived quality, product image and other factors and purchase intention. Shrestha (2012a) conducted the brand equity of dairy milk brands in the Nepal. Shrestha (2012b) investigated on the consumers' perception of brand equity in the noodles markets in Nepal. So, in the light of this context, how brand equity affects purchase intention of consumer is the major concern for this study.

There is still no comprehensive research has been found to investigate the brand equity and purchase intention of smart phone in Nepal. Therefore, the purpose of the research is to investigate the

Fig. 1. Research Framework
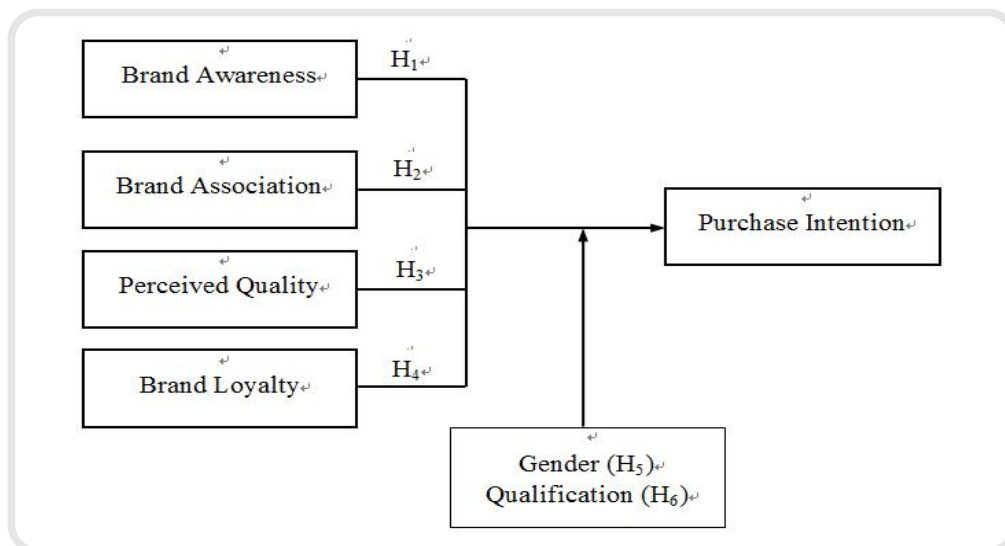
casual relationship among dimensions of brand equity (brand awareness, brand image, perceived quality, and brand loyalty) and purchase intention of consumers in the context of smart phones categories in Nepal.

The research questions for this study are as follows:

Is there any significant influence from brand awareness towards purchasing intention?

Is there any significant influence from brand association towards purchasing intention?

Is there any significant influence from perceived quality towards purchasing intention?

Is there any significant influence from brand loyalty towards purchasing intention?

Is there any significant influence from demographic variables towards purchasing intention?

To address these research questions, this research aims to examine the influence of brand awareness, brand association, brand loyalty, and perceived quality towards purchase intension. Further, it examines the influence of demographic variables towards purchase intension of smart phone users. Thus, the research framework of this study is:

Ⅲ. Hypothesis Development and Research Methodology

1. Hypothesis Development

Relation between Brand Awareness and

Brand Association with Purchase Intention

Brand awareness and brand association with the product increase the probability that the brand remains in the mindset of customers (Cobb-Walgren, Ruble & Donthu, 1995). Marketers apply effective marking communication program to reach customers as they seek information, heightening awareness at potential purchase opportunities (Keller, 1993).

H1: Brand awareness positively affects purchase intention.
H2: Brand association positively affects purchase intention.

Relation between Perceived Quality with Purchase Intention

Perceived quality was an additional value and intangible product towards the brand (Chaudhuri & Holbrook, 2001), which was a psychological perception and attitude among consumers that would facilitate their purchase intention to that brand. The degree of perceived quality on the brand would affect the degree of purchase intention of customers (Keller & Lehmann, 2003).

H3: Perceived quality positively affect purchase intention.

Relation between Brand Loyalty and Purchase Intention

The loyal customers committed to one brand tended to repeat purchase in that brand (Ercis, Unal, Candan & Yildrimn, 2012). Other scholar mentioned that customers possessing high level of brand loyalty led to permanent purchase of the same brand, and bought more than new

customers or customers with low level of brand loyalty (Lee, Back & Kim, 2009; Yoo, Donthu & Lee, 2000).

H4: Brand loyalty positive affects purchase intention.

Relation between Age and Qualification with Purchase Intention

Research has shown different results regarding gender on purchase intention. Rajayogan and Muthumani (2015) found no differences on gender and purchase intention on purchasing in e-store. Gender has positive relationship with purchase intention towards organic foods (Omar, Nazri, Osman & Ahmad, 2016). Level of education/qualification was positively related to consumer's purchase intention towards organic food (Omar et al., 2016). Kumar (2013) argued differently in the premium car segments where demographic variable like gender, age, education, marital status, occupation had no effect on purchase decisions. Laheri (2017) confirmed that consumer's attitudes for the purchase of the green products across demographic variables was significant especially gender and education. From this statement, the following hypotheses were proposed.

H5: Gender moderates brand equity dimensions to purchase intention.
H6: Qualification moderates brand equity dimensions to purchase intention.

2. Research Methodology

The objective of the research was to measure the relationship among dimensions of brand equity and purchase intention of consumers in the context of smart phones categories in Nepal. For this purpose, descriptive and causal research designed was used. The constructs were based on literature review. The target population of this study was the respondents who purchased assorted brands of smart phones in the market.

Data were collected through structured questionnaires. Questionnaires were administered at New Road area and CTC Mall location that is known as mobile phone hub in the Kathmandu. People who purchased and visited mobile phone outlets in these areas were approached and questionnaires were administered to collect data. Spending 7 days in these areas to approach consumers, one of the researcher request to fill the questionnaire to the smart phone users. Altogether 240 respondents agree to fill the questionnaire, but only 196 questionnaires are usable for analysis.

The questionnaire designed based on Likert-type statement about which respondents were asked to indicate their degree of agreement and disagreement using a five-point scale (with anchors 1= strongly disagree and 5= strongly agree). To draw items to measure brand awareness, perceived quality, brand association, brand loyalty and purchase intension the scale developed by Aaker (1991), Yoo et al. (2000), Jalilvand et al. (2011), Pappu, Quester and Cooksey (2005), Keller (1993), were used.

Structural equation modeling was applied to validate the model in the Nepalese context and to check the relation between observed and latent variables. Structural

Equation Modeling and independent sample t-test was used to test the hypothesized model. Exploratory factor analysis (EFA) should be done first before gone to SEM. EFA gives the real factor for further analysis and also assist to check validity and reliability of the individual constructs and the measurement model. Independent sample t-test and ANOVA was used to measure the effect of moderating varia-

Table 1. Rotated Component Matrix

Rotated Component Matrixa					
	Component				
	1	2	3	4	5
Bl1: I would not buy other brands, if smart phone X is available at the a store	.769				
Bl5: I will keep on buying smart phone X as long as it provides me satisfied product	.720				
Bl4: Smart phone X is one of the preferred brands I want to buy.	.671				
Pq4: Smart phone X would be of very good quality	.644				
Pq2: Smart phone X has excellent features	.644				
Bas5: I feel that smart phone X is durable.	.602				
Bas1: Smart phone X has very unique brand image, compared to competing brands	.597				
Pq5: I can easily imagine smart phone X in my mind	.580				
Bl2: Smart phone X would be my first choice.	.578				
Pi3: I am willing to purchase this company's smart phones in the future.		.828			
Pi4: I will make purchasing the smart phone X a great moment.		.747			
Pi1: I would buy smart phone X rather than any other smart phone available.		.703			
Baw1: I am aware of smart phone X.			.823		
Baw2: Some characteristics of smart phone X comes to my mind quickly.			.760		
Baw3: I can recognize smart phone X among competing smart phone brands.			.666		
Pq3: Smart phone X is a reliable brand				.792	
Bas3: I like the brand image of smart phone X				.649	
Pq1: Smart phone X is of high quality				.613	
Bas6: I feel that smart phone adds personality to me					.791
Bas2: I think people who use smart phone X is genius					.640

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

bles like gender and qualification on purchase intention. SPSS20 and AMOS20 statistical software was used for data analysis.

The study was based on the data (quantitative) available from the self administered questionnaire from the selected smart phone users/respondents. The study showed that 62.8 percentage of the respondents were male and whereas 37.2 percentage of the respondents were female. Majority of the respondents are master graduates having 43.4 percent and bachelor graduates having 36.3 percent.

IV. Data Analysis and Testing

1. Exploratory Factor Analysis

Exploratory factor analysis (EFA) was used to identify and refinement of the factors (Hair, Anderson, Tatham & Black, 1998). EFA was run to provide latent constructs for Confirmatory Factor Analysis (CFA). Bartlett's test of Sphericity (Chi-square 1693.550; degree of freedom 190, sig. 0.000) and KMO value 0.895 reported that sample size was enough for factor analysis. Five factors were extracted that were accounted for 64 percent of the to-

tal variance. Scale item having factor loading more than 0.5 was grouped in the related factor. Scale items like Baw4, Baw5, Bas4, Bi3 and Pi2 were dropped out having low factor loadings below 0.5.

The extracted factor from EFA was presented in Table 1.

Table 1 highlighted the rotated component matrix showing matrix of factor loading for each variable to each corresponding constructs. Five constructs were extracted as brand loyalty, purchase intention, brand awareness, perceived quality and brand associations.

2. Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) was conducted for the measurement model that is comprised of five factors measured by 20 scale items. The results of CFA for the overall measurement model was shown in the Table 2.

Table 2 highlighted the fit indices of overall measurement model. The value of CMIN/DF, CFI, GFI, RMSEA and RMR were acceptable (Byrne, 2001; Hair et al., 1998; Joreskog & Sorbom, 1993; Mueller, 1996; Schumaker & Lomax, 1996). The overall measurement model was fitted for

Table 2. Model Fit Indices

Model	Scale Items	Model	Fit		CMIN/DF	CFI	GFI	Fit	Indices	RMSEA	RMR
		a	AVE	a>AVE	CMIN/DF	CFI	GFI	AGFI		RMSEA	RMR
		>0.7	>0.50	a>AVE	3-5	>.90	>.90	>.90		<.1	<.5
Final Measurement Model					1.843	0.91	0.90	0.90		0.06	0.05
Remarks											

Table 3. Validity Measure

	CR	AVE	MSV	ASV	PQQ	BLL	PII	BAWW	BASS
PQQ	0.718	0.510	0.487	0.427	0.718				
BLL	0.885	0.521	0.369	0.447	0.765	0.753			
PII	0.797	0.567	0.450	0.337	0.589	0.671	0.753		
BAWW	0.761	0.515	0.379	0.310	0.556	0.500	0.548	0.718	
BASS	0.721	0.513	0.462	0.399	0.683	0.708	0.500	0.616	0.785

structural equation model.

3. Validity and Reliability of the Measurement Model

The validity of model could be checked with the help of following tools of validity measure.

Discriminant Validity. Two issues have been taken care while performing the structural equation modeling: First, average variance explained (AVE) should be greater than 0.50 (Fornell & Larcker, 1981). Second, AVE should be greater than maximum shared variance (MSV) and AVE should be greater than Average shared variance (ASV).

From Table No. 3, It can be concluded that Average variance explained (AVE) of perceived quality (PQQ), brand loyalty (BLL), purchase intention (PII), brand awareness (BAWW) and brand association (BASS) is greater than 0.50. AVE of all PQQ, BLL, PII, BAWW and BASS are greater than MSV of respective constructs. AVE of PQQ, BLL, PII, BAWW and BASS are greater than ASV of respective constructs. So, discriminant validity was declared for the measurement model.

Convergent Validity. For convergent validity, construct reliability (CR) should be greater than 0.7 and CR should be greater than average variance explained (AVE).

From Table 3, it was found that CR was greater than 0.7 (CR>0.7) for all the constructs in the study and also CR was greater than AVE (CR>AVE) for all the constructs. So, convergent validity was achieved.

The final refined model was structural model for the study for testing the proposed hypotheses. The AVE, given by Fornell and Larcker (1981), $\frac{1}{n}\sum_{t=1}^{n}\lambda_t^2$, (where, l = standardized factor loading, n = number of item) varies among 0.513 to 0.521 brand equity dimensions. The Construct Reliabilities given, by Fornell and Larcker (1981), $\frac{(\sum_{t=1}^{n}\lambda_t)^2}{(\sum_{t=1}^{n}\lambda_t)^2 + (\sum_{(t=1)}^{n}(1-\lambda_t^2))}$, (where, l = standardized factor loading, n = number of item) varies among 0.718 to 0.885 of brand equity dimensions. The path diagram of the final refined measurement model was shown in Figure 2.

Fig. 2. Measurement Model
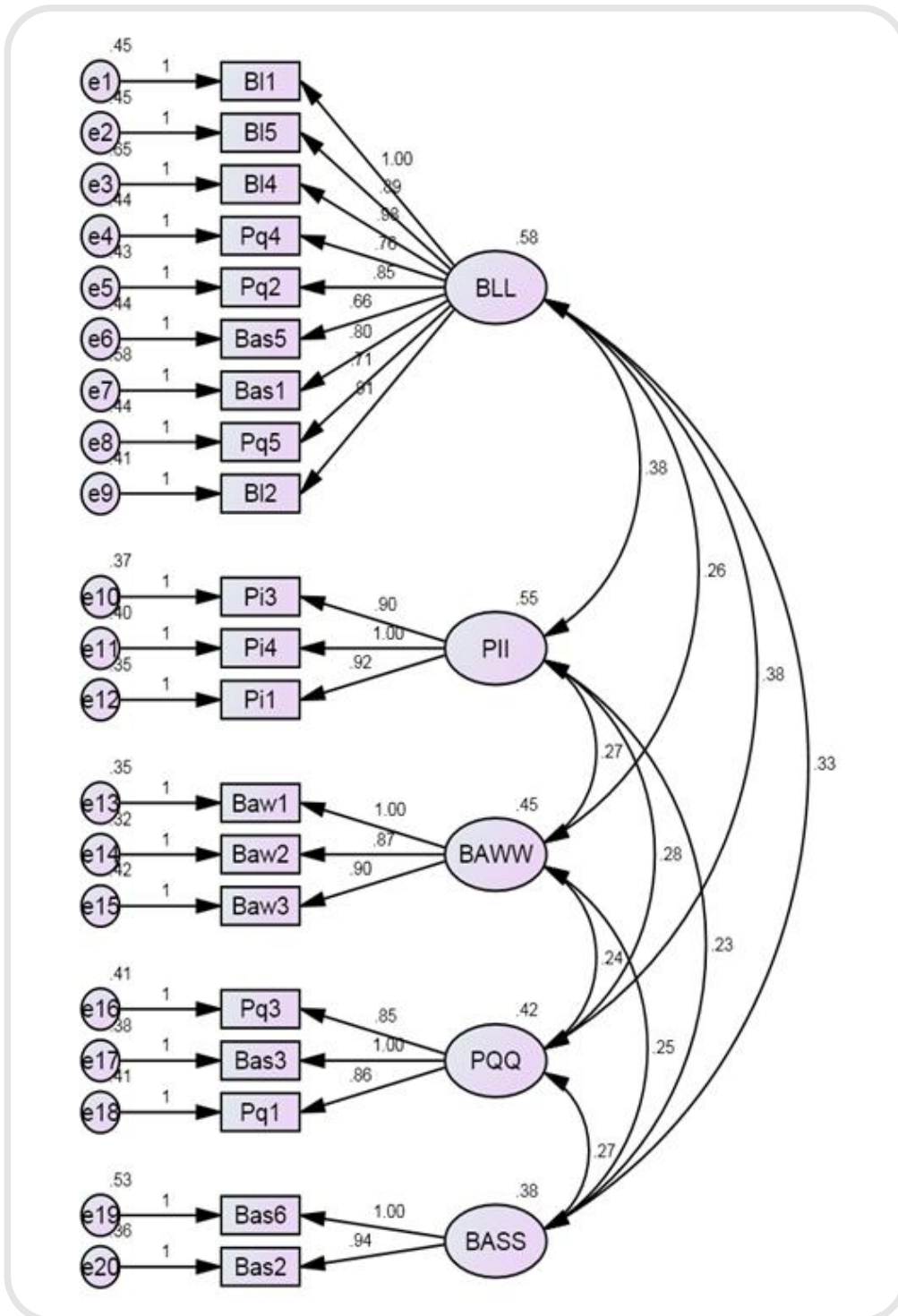
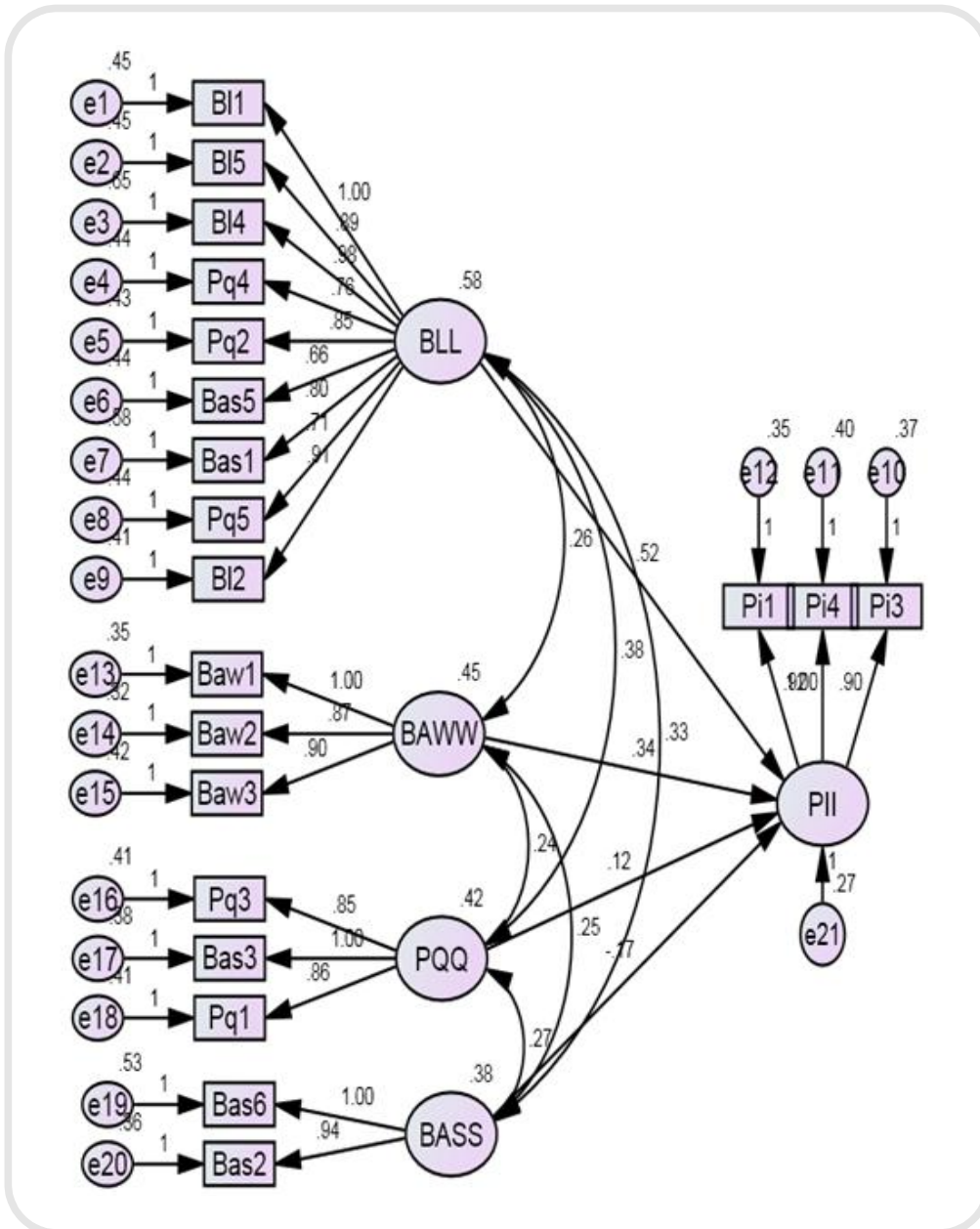## 4. Structural Equation Modeling

After testing validity and reliability of the constructs in CFA, the next step is related structural equation model. The structural model was shown in Figure 3.

Fig. 3. Structural Model

1) Variance Explained by Independent Variables in Dependent Variables

The predicting capability of a model can be assessed by the amount of variance explained by independent variables in the dependent variable. The squared multiple correlation of dependent variable of the study was shown in Table 4.

Table 4 highlighted squared multiple correlation of purchase intention over brand loyalty, brand awareness, perceived quality and brand associations were 0.52 or 52 percent. This model could predict the independent variables by 52 percent.

5. Hypotheses Testing

Relationship between brand equity dimensions and purchase intentions. Significance relationship of brand equity dimensions with purchase intention was measured below.

The Regression coefficients of brand awareness and brand loyalty on purchase intention were found statistically significant. So, H1 and H4 were supported.

Similarly, regression coefficient of brand association and perceived quality on purchase intention were statistically not significant. So, H2 and H3 were not supported.

It was concluded that brand loyalty and brand awareness were the influential factors for purchase intention of smart phones.

Moderation by Gender

Effect of gender on purchase intention was measured below.

Table 6 showed that mean value of male was 3.488 and female was 3.756.

Table 4. Variance Explained by Structural Model

S.N.	Dependent Variable		Independent Variable	Squared Multiple Correlations (R2)
1	Purchase Intention	Brand	loyalty, brand awareness, perceived quality, brand association,	0.52

Table 5. Relationship between Brand Equity Dimensions and Purchase Intention

Hypotheses	From	TO	Standardized Coefficients	S.E.	t-value	Results
H1	BAWW	PII	g1 = 0.343	.131	2.615	Significant
H2	BASS	PII	g2=-0.171	.211	-.810	Not Significant
H3	PQQ	PII	g3 = 0.177	.188	.625	Not Significant
H4	BLL	PII	g4= 0.524	.154	3.409	Significant

Table 6. Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Purchase Intention	1 (Male)	73	3.488	.836	.098
	2 (Female)	123	3.756	.685	.062

Table 7. Independent Sample t-Test

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	2.612	0.108	-2.51	194	0.013	-0.277	0.110	-0.494	-0.060
Equal variances not assumed			-2.39	128.778	0.018	-0.277	0.116	-0.506	-0.048

Table 8. ANOVA Table

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.022	2	0.511	0.896	0.41
Within Groups	110.136	193	0.571		
Total	111.158	195			

Table 7 highlighted significance value of F-value 0.108 (Sig.) showed no differences was existed (Meyers, Gamst & Guarino, 2015). So Equal variances assumed was met.

Sig. of t-value (0.013) shows that females performed significantly better than males in purchase intention (Meyers et al., 2015). So, H5wasaccepted.

Strength of Effect. Strength of effect is measured in the following way.

$$Eta\ square = t2/(t2 + degreesoffreedom)$$
$$(Hayes, 1981).$$
$$= .0315$$

It can be said female were performed 3 percent more than males to purchase intention.

Effect Size. Effect size is measured in

the following way.

Weighted average of SD:

$$Weighted\ Average\ of\ SD =$$
$$\frac{((SD \times MaleNo.) + (SD \times FemaleNo.))}{TotalNmber}$$
$$= (.836 \times 73) + (.685 \times 123)/196$$
$$= 61.028 + 84.255/196$$
$$= 145.283/196$$
$$= .7412$$

Cohen's d statistic. It is measured as the following way.

$$Cohen's\ d = Mean\ difference/Weighted$$
$$average\ of\ SD$$
$$= -0.277/.7412$$
$$= -0.3737$$

Males scored approx. 0.37 std. deviation units lower than females. It was rela-

tively a little bit moderate effect size (Cohen, 1988).

Moderation by Qualification

Effect of qualification is measured through Analysis of Variance (ANOVA). It is explained in the following.

Table 8 highlighted that qualification had no significant differences on purchase intention of smart phones. So, H6 was not accepted.

6. Discussion of Results

All the construct scale had shown good reliability of Cronbach's Alpha value more than 0.7. All the constructs under study showed mean value greater than 3 and standard deviation below 0.1 confirmed the mean value was fair. Moderate to strong relations were found between endogenous and exogenous constructs that was statistically significant. EFA was done to refine the factors and shown no cross loadings among scale items. In CFA, measurement model was fitted for further analysis for structural equation model. Validity and reliability were confirmed for measurement model under CFA. In SEM, squared multiple correlation of purchase intention over brand loyalty, brand awareness, perceived quality and brand associations was 0.52 or 52 percent. This means this could predict the independent variables by 52 percent. Brand loyalty and brand awareness had significant effect on purchase intention.

Perceived quality and brand association had no significant effect on purchase intention. Females performed significantly better than males purchasing of smart phones. Qualification has shown no dif-

ferences in purchase intention.

Ⅴ. Conclusion and Implications

This research was done to measure the impact of brand equity factors on purchase intention of smart phone brands. Brand loyalty and brand awareness are the predictors of purchase intention of smart phones. No support was found for brand perceived quality and brand associations that enhance purchase intention of smart phones. Customers want to be brand loyal to their particular brands and want to be aware always to smart phones brand.

In the Nepalese smart phones markets, people are known to all the brands. They were loyal to their particular brand. All the brands were perceived same sort of features and fall in the similar categories like as budget smart phones or mid range segments. So, people's perception towards smart phones was similar and viewed not contributing to their brand knowledge. People did not find any associations to link to their particular brand. They just like to connect to the smart phones through brand names. In this regards, it can be viewed as brand awareness has been contributing to brand loyalty simultaneously enhancing brand equity of smart phones in Nepal.

This study as consistent with Malik and Ghafoor (2013) that brand awareness and brand loyalty had significant influence on purchase intention of smart phones. It was because consumer wanted to collect more information to be aware and familiar with the brand and their

past smart phones experiences and their current expectation supported consumers to be loyal that had motivated to purchase intention of smart phones. This study was partially consistent with Fianto et al. (2014) and Naing and Chaipoopirutana (2014) that brand association/image had not shown significant influence on purchase intention. It was because consumer had made their mind set already before purchasing the smart phones. So, brand image did not motivate consumers to purchase the smart phones. Females were more sophisticated in purchasing of smart phones. It can be concluded that brand factors like brand awareness, brand image, perceived quality and brand loyalty were important dimensions of brand equity.

Further research can be done in broadly conducted nationwide or other major cities of a country. As this research did not entertain financial aspect of brand equity, so financial performance of a company also be measured in future research. This research also can be done other product and service categories broadly.

References

Aaker, D. A. (1996), Building Strong Brand. New York: Free Press.

Aaker, D. A. (1991), Managing brand equity: Capitalizing on the value of a brand name. New York: The Free Press.

Ajzen, I., & M. Fishbein (1980), Understanding attitudes and predicting social behavior. New Jersey: Prentice-Hall.

Armstrong, J. S., V. G. Morwitz, & V. Kumar (2000), Sales forecasts for existing consumer products and services: Do purchase intentions contribute to accuracy? *International Journal of Forecasting*, 16, 383-397.

Byrne, B. M. (2001), Structural equation modeling with AMOS: Basic concepts, applications, and programming (2nd ed.). New Delhi: Routledge/Taylor & Francis Group.

Chaudhuri, A., & M. B. Holbrook (2001), The chain of effect from brand trust and brand effect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81-93.

Cobb-Walgren, K. J., C. A. Ruble, & N. Donthu (1995), Brand equity, brand preference, and purchase intent, 24(3), 25-41.

Cohen, J. (1988), Statistical power analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.

Day, G. S. (1969), A two-dimensional concept of brand loyalty. *Journal of Advertising Research*, 9(3), 29-35.

Dodds, W. & K. B. Monroe (1985), The effect of brand and price information on subjective product evaluations. *Advance in Consumer Research*, 2, E.C. Hirschman and M.B Holbrook, (Eds.), Provo, UT: Association for Consumer Research, 85-90.

Dodds, W. B., K. B. Monroe & D. Grewal (1991), Effects of price, brand, and store information on buyers' product evaluation. *Journal of Marketing*

Research, 28(3), 307-319.

Ercis, A., S. Unal, F. B. Candan, & H. Yildrinm (2012), The effect of brand satisfaction, trust and brand commitment on loyalty and re-purchase intentions. *Procedia Social and Behavioral Sciences*, 58, 1395-1404.

Farquhar, P. H. (1989), Managing brand equity. *Marketing research*, 1(3), 24-33.

Fianto, A. Y. A. & D. Hadiwidjojo, S. Aisjah & A. Solimun (2014), The influence of brand image on purchase behaviour through brand trust. *Business Management and Strategy*, 5(2), 58-76

Fishbein, M. & I. Ajzen (1975), Belief, attitude, intention, and behavior: An introduction to theory and research. Addison-Wesley Publishing Company. MA.

Fornell, C. & D. F. Larcker (1981), Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(2), 39-50.

Gil, R., E. Bravo, A. Fraj & M. M. Salinas (2007), Family as a source of consumer-based brand equity. *Journal of Product & Brand Management*, 16(3), 188-199.

Hair, J.F., R. E. Anderson, R. L. Tatham & W. C. Black (1998), Multivariate data analysis (5th ed.). Upper Saddle River, NJ: Prentice Hall.

Jalilvand, M. R., N. Samiei & S. H. Mahdavinia (2011), The effect of brand equity components on purchase intention: An application of Aaker's model in the automobile

industry. *International Business and Management*, 2(2), 149-158.

Joreskog, K. & D. Sorbom (1993), LISREL 8: Structural equation modeling with the IMPLIS command language. Chicago: Scientific Software International (SSI).

Kapferer, J. N. (2008), The new strategic brand management, creating and sustaining brand equity long term. London: Kogan Page.

Keller, K. L. (1993), Conceptualizing, Measuring and Managing Customer-Based Brand Equity. *Journal of Marketing*, 57(1) 1-22.

Keller, K. L. & D. R. Lehmann (2003), How do brands create value? *Marketing Management*, 5/6, 26-31.

Keller, K. L., T. Aperia & M. Georgson (2008), Strategic brand management: A European perspective. Pearson Education, Prentice Hall.

Keller, K. L. (2008), Strategic brand management, building, measuring and managing brand equity. Upper Saddle River, NJ: Prentice Hall.

Khan, N., S. H. R. Rahmani, H. Y. Hoe & T. B. Chen (2015), Causal relationships among dimensions of consumer-based brand equity and purchase intention: Fashion industry. *International Journal of Business and Management*, 10(1), 172-181.

Kim, K. H., K. S. Kim, D. U. Kim, J. H. Kim & S. H. Kang (2008), Brand equity in hospital marketing. *Journal of Business Research*, 61, 75–82.

Kumar, S. P. (2013), Prediction of consumer purchase decision using demographic variables: A study with reference to premium car. *IOSR*

Journal of Business and Management, 12(5), 117-120.

Laheri, V. K. (2017), Impact of demographic variables for purchase of green products. *Indian Journal of Commerce & Management Studies*, 8(1), 69-76.

Latwal, G. S. & R. K. Sharma (2012), The effect of brand equity on purchase intention: An empirical investigation with special reference to car owner in West Delhi. BVIMR Management Edge, 10(1), 1-24. Retrieved from SSRN:http://ssrn.com/abstract=2425556

Lee, Y. K., K. J. Back & J. Y. Kim (2009), Family restaurant brand personality and its impact on customer's emotion, satisfaction, and brand loyalty. *Journal of Hospitality and Tourism Research*, 33(3), 305-328.

Malik, M. E., & M. M. Ghafoor (2013), Importance of brand awareness and brand loyalty in assessing purchase intentions of consumer. *International Journal of Business and Social Science*, 4(5), 167-171.

Mela, C., S. Gupta & D. Lehman (1997), The Long-term Impact of Promotion and Advertising on Consumer Brand Choice. *Journal of Marketing Research*, 34(2), 248-261.

Meyers, L. S., G. C. Gamst & A. J. Guarino (2015), Performing data analysis using IBM SPSS. New Delhi, Daryaganj, Ansari Road: Wiley India Pvt. Ltd.

Mueller, R.O. (1996), Basic principles of structural equation modeling: An introduction to LISREL and EQS. New York: Springer Texts in Statistics.

Naeini, A. B., P. R. Azali, K. S. Tamaddoni (2015), Impact of brand equity on purchase intention and development, brand preference and customer willingness to pay higher prices. *Management and Administrative Sciences Review*, 4(3), 616-626.

Naing, K. W., & S. Chaipoopirutana (2014, August), The factors affecting purchase intention of a smart phone in Yangon, Myanmar. International Conference on Trends in Economics, Humanities and Management (ICT EHM), 190-194. Retrieved from http://icehm.org/upload/5343ED0814095.pdf

Oliver, R. L. (1997), A behavioral perspective on the consumer. New York, NY: McGraw-Hill.

Oliver, R. L. & W. O. Bearden (1985), Crossover effects in the theory of reasoned action: a moderating influence attempt. *Journal of Consumer Research*, 12(3), 324-340.

Omar, N. A., M. A. Nazri, L. H. Osman & M. S. Ahmad (2016), The effect of demographic factors on consumer intention to purchase organic products in the Klang Valley: An empirical study. *Malaysian Journal of Society and Space*, 12(2), 68-82.

Pappu, R., P. G. Quester & R. W. Cooksey (2005), Consumer-Based Brand Equity: Improving the Measurement – Empirical Evidence. *Journal of Product & Brand Management*. 14(3), 143–154.

Porter, M. E. (1974), Consumer behavior, retailer power and market performance in consumer goods industries. *Review on Economics and*

Statistics, 56(4): 419 436.

Rajayogan, K. & S. Muthumani (2015), The impact of demographic variables based on buying behavior intention towards e-store in India. *Journal of Theoretical and Applied Information Technology*, 75(1), 62-66.

Schiffman, L. G. & L. L. Kanuk (2007), Consumer behavior (9thed.). NJ: Prentice-Hall.Inc.

Schumaker, R. E. & R. G. Lomax (1996), A beginner's guide to structural equation modeling. Mahwah, NJ: Erlbaum.

Shrestha, S. K. (1012b), Measuring brand equity and marketing mix of noodles markets in Nepal. *The Nepalese Management Review*, 15(1), 82-94.

Shrestha, S. K. (2012a), Determinants of consumer-based brand equity in Nepalese dairy milk sector. *International Conference on Operation Research [Proceeding Book]*, 236-349.

Teuminen, P. (2000), Customer based brand equity: delivering value for the firm, trade and customer. Turku school of Economics and Business Administration. Series A-2000. Turko, 305-316.

Vinh, T. T. & L. V. Huy (2016), The relationships among brand equity, brand preference and purchase intention: Empirical evidence from the motorbike market in Vietnam. *International Journal of Economics and Finance*, 8(3), 75-84.

Yoo, B. & N. Donthu (2001), Developing and validating multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52, 1-14.

Yoo, B., N. Donthu & S. Lee (2000), An examination of selected marketing mix elements and brand equity. *Journal of the Academy of Marketing Science*, 28(2), 195-211.

Zeithaml, V. A. (1988), Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *Journal of Marketing*, 52(3): 2-22.