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Do Cash Holdings Differ in Europe and Asia Pacific?

Ummar Aftab*, Waseem Akhter Qureshi and Attiya Yasmin Javid*****

Abstract

This paper identifies the determinants that contribute towards the variation in financial assets that make up a firm's total cash reserves, specifically in two important regions of the world i.e. Asia Pacific and Europe. The findings of the research reveal that firms in the region of Asia Pacific have slightly higher cash holdings, as compared to firms in Europe. Moreover, the study also identifies that the elevated cash holdings in Asia Pacific are not a result of the agency problem, as is generally viewed, rather, the shareholder power hypothesis is a more appropriate measure to elucidate this elevation in the level of cash holdings in the region. When shedding light on to the firm specific cash holding determinants, the findings of the research reveal that leverage, dividend payment, profitability, growth and net working capital, cash flows and financial strength, influence cash reserves in both the regions, exactly in the same manner. This shows the application of transaction, and precautionary motives in both the regions. The study further identifies that size, and investments have a varying effect in both the regions that are taken into consideration. Again, this difference may be attributed to Shareholders' Power Hypothesis, specifically for Asia Pacific and the Agency View, specifically for Europe. Shareholders' Right Index influences cash reserves in Asia Pacific in a positive manner, while in Europe, the same index shows a negative influence. The development in the financial markets has a negative negatively influence on cash holdings in Asia Pacific, and a positive one in Europe.

Keywords: Cash holdings, formal institutions, firm specific determinants, Asia Pacific, Europe.

JEL classification: G20, G23, G39.

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1. Introduction

Generally, firms that dwell in perfect capital markets are easily able to generate funds at insignificant costs, due to which, the decision to hold cash is irrelevant. In such markets, the value of the firms is not affected by any changes in their liquid assets. However, literature reveals that in the real markets, firms prefer, as well as tend to make investments in short term assets. For example, Al-Najjar and Belghitar (2011) find that firms in the United Kingdom hold cash, and other cash equivalents including treasury bills, marketable securities, and commercial papers etc., as 9 % of their total assets. Gao, Harford and Li (2013) identify that the share of cash reserves in total assets of the firms in the United States of America is 18.8 %. Kato, Lee and Skinner (2011) examine that the contribution of cash in the total assets of the Japanese firms, is only 10 %. Rehman and Wang (2015) find that cash happens to be about 6.67% of the total assets in China. This shows that the markets are not perfect, and the firms consider cash holding an important strategic decision.

The decision of the firms to hold cash reserves is explained by the Agency Theory, and the Shareholders' Power Hypothesis, albeit differently. The Agency Theory assumes that the managers of the firms are prone to maximize efforts in lieu of their own interests at the cost of those of the shareholders. Jensen (1986) argues that the presence of free cash flows aggravates the situation, as managers use free cash flows at their discretion. This may harm the due benefits to the shareholders, and hence, the cash reserves of the firm may be artificially reduced in order to increase their value. On the other hand, as per the Shareholders' Power Hypothesis, the shareholders allow greater cash holdings to the management when their interests are sufficiently secured.

There are several studies that analyze cash holding determinants, specifically for factors that pertain to firms (Bates, Kahle & Stulz, 2009; Lins, Servaes & Tufano, 2010; Ozkan & Ozkan, 2004). Moreover, other studies identify the impact of formal institutions on cash holdings, along with the firm specific variables also applicable in this case as well (Chen, Dou, Rhee, Truong & Veeraraghavan2015; Kalcheva & Lins, 2007; Pinkowitz, Stulz & Williamson, 2015). Some studies reveal a significant relationship between formal institutions and the cash reserves (Chen et al.,2015; Ferreira & Vilela, 2004; Kalcheva & Lins, 2007), while some other studies were unable to find a substantial influence of institutional factors, on the level of cash reserves (Pinkowitz et al., 2015).

Although, the above-mentioned studies examine the effect of different firm specific, as well as national level variables, in the context of corporate cash holdings, there is no cross region study found in the literature, which sheds light on the determination of cash reserves in Asia pacific and Europe. This is an endeavor that is undertaken in order to bridge the gap between studies on single country or region, and cross region comparative studies, by investigating a broader set of firm specific factors, such as the size, z-score, dividend, profitability, leverage, intangibles, investments, net working capital, cash flows and institutional factors including overall country governance, Shareholders' Right Index and capital markets development in two important regions of the world i.e. Asia Pacific and Europe.

Both regions are different in their pattern of treating cash holdings, solely due to the reason that there is a difference in the governance systems that prevail in different countries of the regions in question, and/or the agency and asymmetric problems at the firm level. This study also aims to find which factors are more pronounced in elucidating the differences of cash reserves in both the regions. If it is assumed that a higher level of cash holdings is indicative of an asymmetry problem of the firm (Myer, 1984), the countries in Asia Pacific region suffer more from this, as the median cash holdings of Asia Pacific are 11.22%, as compared to 9.49% of those in Europe (Table-A2). Our study, however, reveals that cash holdings in Asia Pacific region are driven more by the Shareholders' Power Hypothesis, whereas the Agency View is more rigorously followed in Europe. Nevertheless, other theories like the Financial Hierarchy Theory and the Tradeoff Theory are also applicable in both the regions.

The formal institutions used in this study make use of the worldwide governance, shareholder right index, market capitalization percentage of GDP, and the domestic credit provided by financial institutions as a percentage of the GDP. The results reveal that in Europe and the Asia Pacific region, formal institutions tend to play a lesser important role in formulating the cash holding decision. On the contrary though, firm specific factors significantly influence the decision to hold cash, and cash equivalents in both the said regions. Furthermore, it must be noted that in the regions under the consideration of this study, cash flows and financial strength influence the cash reserves positively; while net working capital, leverage, growth, profitability and dividend are negatively associated with cash reserves. The study also comes to the conclusion that investments, as well as the size have a positive influence on cash reserves in Asia, but have a significantly negative effect in Europe.

This study helps to fathom, as well as understand the behavior of firms, specifically towards their decision to hold cash reserves in Asia Pacific and Europe – which happen to have different institutional settings than the rest of the world, as well as in comparison to each other. The time period of this study is concentrated between the years of 2007 and 2016. The main purpose of the research was to study the impact of the company specific factors, as well as the institutional cash holding factors influencing the 4,662 companies, from 35 countries that are categorized under the Asia Pacific region and Europe. In exact terms, there were 3,358 firms from Asia Pacific, and 1,304 firms from Europe, that were taken into consideration in this research. Thus, this paper analyzes the decisions to hoard cash, and cash equivalents in a more holistic and all encapsulating range of business and corporate culture within the two regions that are in question. This study is one of the pioneer studies which aim to focus on company specific, and institutional factors that affect cash holding decisions and activities in Asia Pacific and Europe, thus providing guidance to finance practitioners and academic scholars.

This paper has been constructed in the following scheme: In section 2, the theory on cash holding determinants, along with the empirical base is presented; in section 3, the hypothesis development, sample, data and variables are stated; the results are explained in section 4; and the summary of the study is described in section 5.

2. Corporate Cash Holdings: Theory and Empirical Base

In this section, theories related to the cash holding determinants are presented. Following this, then, the literature review is presented, which refers to other important studies previously carried out, specifically pertaining to the relationship between firm specific and institutional factors, and cash holdings in different economies of the world.

2.1. *Literature Review*

The Trade-off theory states that when the marginal benefits of cash holdings equate with the marginal costs of cash reserves, a firm's value is at its highest level. The advantages of hoarding cash reserves include reduction in transaction costs, lesser probability of financial distress, and more chances to successfully execute investment plans (Guizani, 2017). The main cost that is associated with hoarding cash is the opportunity cost that comes with it. When opportunity and fund raising costs are higher, the firms are inclined towards holding more cash (Dittmar, Mahrt-Smith & Servaes, 2003; Miller & Orr, 1966).

The Pecking order theory, on the other hand, states that firms pursue financial hierarchy so that the asymmetry information costs may be reduced (Myers & Majluf, 1984). At the first instance, in order to finance investments, firms use internal resources, and after these resources are exhausted, external means of financing are utilized. Different investment and financing decisions are determined by this hierarchal pattern of financing, and cash reserves are merely the result of such decisions (Dittmar et al., 2003).

As per Jenson (1986), in case of negative net present value (NPV) projects, entrenched managers desire to stockpile cash for their discretionary uses, rather than distributing free cash flows to shareholders. These free cash flows in the hands of managers are reserved for their private benefits. As per Dittmar et al. (2003), firms having more agency issues tend to hoard more cash reserves. According to Dittmar and Smith (2007), and, Harford, Mansi and Maxwell (2012), in the firms where managers have excess cash holdings, entrenched managers are likely to spend cash quickly.

2.2 *Empirical Evidence*

In the previous years, there have been several studies on cash holdings, not only in developed, but also in many developing countries of the world. Among the developed countries, researches of Al-Najjar and Belghitar (2011) use the data that was extracted from the UK; Opler, Pinkowitz, Stulz and Williamson (1999) analyze cash holding determinants for American firms; while Teruel and Solano (2008) work on Spanish SME firms. These studies use only firm specific factors that influence cash holdings.

Other than the above-mentioned researches, there are also cross countries studies that were conducted on cash holding determinants. For example, for EMU countries, Ferreira and Vilela (2004) analyze the influence of financial variables on cash reserves. Dittmar et al. (2003) identify the relationship between corporate governance, and cash holdings for 45 countries. For Brick countries i.e. Brazil, Russia, India and China, Al-Najjar (2013) investigate the relationship between firm specific factors, and cash holdings. Pinkowitz et al. (2015) compare cash holding decisions of US firms, with their foreign counterparts. Guney, Ozkan and Ozkan (2003) analyze cash holding determinants for France, USA, Germany and Japan.

Furthermore, Almeida, Campello and Weisbach (2004), identify that for constrained firms, cash flows from operations tend to be more sensitive, while the unconstrained firms show no sensitivity in this regard. When agency problems show no signs of ease, the outside investors discount the value of their cash reserves (Kalcheva & Lins, 2007). Foley, Hartzell, Titman and Twite (2007), analyze the behavior of cash holdings for US multinational firms, which also have to take the rules of taxation into consideration. Their results indicate that the level of repatriation tax is positively related with cash holdings.

The review of above literature reveals that not only firm specific factors influence cash holding decision of the firms, but formal institutions also have a pronounced impact on the level of cash that is held by firms. There are studies that pertain to a single country, as well as on the situation that prevails across countries. Having taken all these factors into consideration, and also taking into account the author's scope of study in this regard, not a single study is found in the literature, which makes a comparison of cash holding behavior between Europe and Asia pacific.

3. Methodology and Data

In section 3.1, the conceptual framework and hypothesis are presented, followed by the empirical specification in section 3.2. In section 3.3, sample, data and variables are discussed, respectively.

3.1. Conceptual Framework and Hypotheses Development

The literature reveals that not only firm specific variables affect cash holding decisions, but institutional factors also influence the level of cash which firms hold. In this section, the hypotheses are developed for both types of variables, separately.

3.1.1. Firm Specific Determinants of Cash Holdings

In a perfect capital market, a firm's value is not affected by the financial decisions that are taken by the management (Stiglitz, 1974). Also, decision to hold cash reserves have no impact on the firm's true value (Opler et al., 1999). However, in reality, the markets are imperfect, so impotence of holding cash, and cash equivalents in the economy, cannot be overlooked (Al-Najjar, 2013). On the basis of prior studies, this study identifies the factors affecting cash reserves across two important regions i.e. Asia pacific and Europe, as under:

3.1.2. Firm Size

In all studies on cash holdings, the firm size is used as an important determinant which may be used to fathom the level of cash that is held by these firms. There are some studies which identify that firm size, and cash holdings are positively related with each other (Lins et al., 2010; Qiu & Wan, 2015). It is also supported by all the major theories, as large firms have the ability to obtain external finance at lower costs as compared to smaller firms; so, larger firms have a lesser need to hold cash reserves.

Nevertheless, as per Ozkan and Ozkan (2004) and, Liu, Mauer and Zhang (2014), the firm size influences cash reserves of the firms, in a negative manner. Furthermore, as per the Shareholder Power Hypothesis, the management of the larger firms may be allowed, by shareholders, to hold more cash reserves when their interests are sufficiently protected. The larger firms are subject to more scrutiny, and external discipline and thus, the information asymmetry is reduced. In the light of the above statements, the first hypothesis is:

Hypothesis 1: Firm size is positively/ negatively related to the cash holdings of the firms.

3.1.3. Leverage

Leverage is considered as an alternative to holding cash, and cash equivalents. Acharya, Almeida and Campello (2007) and Chen et al. (2015) identify that there is a negative relationship between leverage, and cash holdings. All major theories predict the same, as leverage reduces the danger of underinvestment, and imposes incremental external monitoring on the management. So, in light of these findings, the next hypothesis is:

Hypothesis 2: Leverage of the Firm Negatively Influences Cash Holdings

3.1.4. Dividend

Dividend payment reduce the cash reserves of the firm. Julio and Yook (2012), and Khieu and Pyles (2012), identify that dividends have a negative influence on the cash reserves of the firms. Nevertheless, Hill, Fuller, Kelly and Washam (2014) and, Chen, Chen, Schipper, Xu and Xue J (2012), find that there is a positive relationship between dividends, and cash holdings. The Shareholder Power Hypothesis also asserts that the dividends influence cash reserves positively. On the basis of these revelations, the next hypothesis is that:

Hypothesis 3: Dividends have a positive/negative influence on cash holdings

3.1.5. Financial Distress

As per Subramaniam, Tang, Yue and Zhou (2011), financial distress has a positive effect on cash reserves, whereas, Khieu and Pyles (2012), and Lins et al. (2010) find that financial distress is negatively related with cash reserves, as firms facing severe insolvency cannot stockpile liquid assets. Hence, the next hypothesis is:

Hypothesis 4: There is a significant positive/ negative influence of financial distress on cash holdings.

3.1.6. Growth Opportunities

Asymmetry problems that firms come face to face with, usually intensify with an increase in growth options, which then cause an increase in the cost of external financing. In such situation, the liquid assets of a firm act as an insurance policy to high growth firms, and the probability of financial distress, and abandoning better investment opportunities is reduced (Iskandar-Datta & Jia, 2014). Nevertheless, Bigelli and Vidal (2012), and Khieu and Pyles (2012), reveal that in mature and private firms, the options for growth do not increase cash reserves of the firms. Furthermore, firms may face a decline in cash reserves after financing the growth investments. From these revelations, the next hypothesis formulated is:

Hypothesis 5: Growth opportunities have a positive/negative influence on cash reserves

3.1.7. Investment activities

Typically, The Increase in investments reduce the cash reserves of the firms. This phenomenon is observed by Hoberg, Phillips and Prabhala (2014), for capital expenditures, and by Oler and Picconi (2014) for expenditures that were concerned with firm acquisitions. Opler et al. (1999) dentify that the capital expenditures influence the cash holdings of the firms in a positive way. From the above information gathered, the following hypothesis may be developed:

Hypothesis 6: There is a significant positive/ negative impact of investments on the cash holdings of the firms.

3.1.8. Cash Flows

D'Mello, Krishnaswami and Larkin. (2008), have identified that there happens to be a significant positive impact of cash flows on the cash reserves of the firms. The Free Cash Flows (FCF) hypothesis and Pecking Order Theory also advocates the same beliefs. Hence, according to these research findings, the next hypothesis is:

Hypothesis 7: Cash flows have a positive influence on the cash holdings of the firms

3.1.9. Profitability

As per the Pecking Order Theory, cash reserves are stockpiled and built as a result of the investment decisions of the management, and the relevant financing necessary to raise capital. The Profitability of firms enhances their ability to make dividend payments, fulfill debt obligations, and hoard cash. Al Najjar and Clark (2017) also recognize the positive effects of profitability, on cash holdings. Therefore, as per Pecking Order Theory, and the empirical studies, the next hypothesis devised is:

Hypothesis 8: Profitability has a positive influence on the cash holdings of the firms.

3.1.10. Net Working Capital

One of the alternatives of cash holdings, in order to maintain liquidity in the firm, is the maintenance of net working capital. As per the Trade-off Theory, and studies conducted by Subramaniam et al. (2011) and Liu et al. (2014), net working capital, and cash holdings carry a negative relationship with each other. Hence, it may be hypothesized that:

Hypothesis 9: The net working capital has a negative influence on cash holdings.

3.1.11. Institutional Factors Influencing Cash Holdings

Pinkowitz et al. (2015) state that the firms hold lesser cash reserves as formal institutions move towards improved operations, simply for the reason that the agency problems are now better controlled, and managed in such institutions. If these intuitions are unable to protect the rights of the minority shareholders, and poor governance prevails in the country, the controlling managers or majority shareholders will be more tempted to use the cash reserves for their private benefits. On the other hand, however, the Shareholder Power Hypothesis predicts the opposite, and allows managers to hoard more money once the rights of the shareholders have been protected. The following are the formal institutions which are considered in this study, in order to analyze their effect on cash holdings:

3.1.12. Shareholders' Right

Dittmar et al. (2003) find that the shareholder's right leaves a negative impact on the cash holdings of firms. To them, the firms operating in countries which exercise poor shareholder rights, tend to stockpile more cash because the laws in such countries do not protect the rights of the shareholders, and as a result, the entrenched managers can accumulate higher cash reserves for their private benefits. In countries where there are strong shareholder rights, the situation flips to the opposite side, where the shareholders can force the managers of the firms to disgorge the cash holdings. The Outcome theory also advocates a negative relationship between the shareholder right, and cash holdings (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 1999)

On the other hand, the Shareholder Power Hypothesis states that, the shareholders in the countries with high protected rights are less concerned with the cash that is stockpiled by the managers, and thus allow the managers to hoard money. By this logic, it may be hypothesized that:

Hypothesis 10: Shareholder rights protection is negatively/ positively associated with cash holdings

3.1.13. Country Governance

According to the Agency Theory, firms with more agency problems tend to have more cash holdings. Kusnadi, Y. (2011) identify that firms with weak governance are inclined towards hoarding more money, as compared to the firms with a strong governance in practice. Pinkowitz et al. (2015) argue that the cash holdings of the firms in countries which practice good governance, are lesser than firms in the countries which practice weak governance. Thus, we hypothesize that:

Hypothesis 11: Country governance is negatively associated with cash holdings

3.1.14. Financial Market Developments

Also, the development of financial markets has an effect on the decision to hold cash reserves (Fan, Wong, & Zhang, 2007). According to Caprio, Faccio and McConnell (2010), there is less friction, and expropriation by government officials, in the countries which have more developed markets, and as a result, the firms in such countries may hold more cash. On the other hand, in a developed market, the access to capital markets is easy, and the firms may intend to keep a lower level of cash due to the opportunity costs associated with cash holdings (Kusnadi, Yang & Zhou, 2015). For this reason, we may hypothesize that:

Hypothesis 12: The development of the financial market is positively/ negatively associated with cash holdings

3.2. Empirical Specification

The general specification of the model is as under:

$$CH_{it} = \beta 0 + \beta_1 SRI_i + \beta_2 WGI_{it} + \beta_3 MktCap_{it} + \beta_4 DomCrdt_{it} + \beta_5 SIZE_{it} + \beta_6 LEV_{it} + \beta_7 DIV_{it} + \beta_8 Zscore_{it} + \beta_9 INVST_{it} + \beta_{10} INTANG_{it} + \beta_{11} CF_{it} + \beta_{12} ROA_{it} + \beta_{13} NWC_{it} + \varepsilon_{it}$$

Where CH is cash, and cash equivalents, divided by the total assets ratio; SRI is the Anti-Director Index (ADRI) from Porta, Lopez-de-Silanes, Shleifer and Vishny (1998), as revised in Djankov (2009), which is used as a proxy of the Shareholder right index; WGI is the overall governance of a country; MktCap is the market capitalization of the listed domestic companies, and DomCrdt is the domestic credit that is provided by the financial sector- both are proxies that are used for financial developments; Size is the natural logarithm of total assets; LEV is the total debt to total assets; DIV is the ratio of total dividends to total assets; Zscore is Altman's z-score, which is a proxy used for financial distress; INVST is measured as the capital expenditure to total assets; INTANG denotes the intangible assets to total assets; CF represents the operational cash flows divided by total assets; ROA is the ratio of net income to total assets; NWC is the net working capital, divided by total assets; and finally, ε is the error term. Table A1 presents the calculations for all the relevant variables.

Table A1: Description of Variables

Symbols	Variables	Description
SRI	Shareholder right index	Anti-director index (ADRI) from La Porta et. al (1998) as revised in Djankov et al. (2009)
WGI	Worldwide governance index	Worldwide Governance Indicators (WGI) from World Bank database.
Mktcap	Market Capitalization	Market Capitalization divided by GDP
Domcrdt	Domestic credit provided by banks	Domestic credit provided by banks divided by GDP
Z SCORE	Financial Risk/ Financial strength	Altman's Z- Score
INVST	Capital Expenditure	Capital expenditure/Total assets
INTAN	Intangibles	Intangibles/ Sales
CF	Cash flows	Operational cash flows / Total assets
ROA	Profitability	Net Profit/ Total assets
NWC	Net Working Capital	Net Working Capital / Total assets

Note: This table provides definitions of cash holdings and independent variables including shareholder right index, worldwide governance index, and market capitalization as percentage of GDP, domestic credit provided by bank divided by GDP and firm specific variables for cash reserves.

For the purpose of estimating the model with the best approach, there is need to understand the objective of the study. In our sample data, we have made use of firm specific variables which are time variant, and are unique to each firm. Furthermore, there are country specific variables as well, out of which the shareholder right index (SRI) is time invariant, with one value available for each country, whereas, the Worldwide Governance Index (WGI), Equity Market Capitalization and Domestic Bank Credit are time variant, which means that their values change over a certain period of time for a country, but for each firm of the country, the values will remain the same. Hence, the panel data is used to estimate the model, by applying GLS along with the cross section weights. It must also be noted that, heteroskedasticity poses as a challenge which may be encountered in the panel data analysis, and as a repercussion, the results might come out to be inconsistent. So, in order to curb this problem, this study uses the PCSE correction method to control for heteroskedasticity.

3.3. *Sample and Data*

This study analyzes data pertaining to two main regions of the world, including Europe and Asia Pacific. The sample consists of 4,662 firms, extracted from the World Scope database. From Europe, 3,358 firms, and from Asia Pacific, 1,304 firms are selected for the purpose of this study, which focuses on the findings between the periods of 2007 to 2016. The firms are selected on the basis of the availability of financial data in the World Scope database. The detail is placed at Table A2, in the appendix.

Table A2: Regions, Countries and Number of Observations

AISA PACIFIC		EUROPE	
Country	**Observations**	**Country**	**Observations**
Australia	2,220	Austria	100
China	570	Belgium	320
Hong Kong	3,660	Czech Republic	30
India	3,040	Denmark	450
Indonesia	440	Finland	540
Japan	5,910	France	1,200
Malaysia	5,610	Germany	1,800
Newzeland	2,650	Greece	610
Pakistan	120	Hungry	40
Peru	490	Ireland	180
Philippine	100	Italy	710
Singapore	520	Netherland	490
South Korea	1,510	Norway	270
Taiwan	1,550	Poland	320
Thailand	5,190	Portugal	150
		Spain	340
		Sweden	690
		Switzerland	820
		Turkey	620
		United Kingdom	3,360
	33,580		**13,040**

Note: This table provides detail of name of countries, regions and number of observation. For each region, total number of observations is presented. For Europe sample, total number of observations is 13,040 and for Asia Pacific sample is 33,580.

For formal institutions, we obtained the data from a variety of sources. We obtained data from the Worldwide Governance Indicators (WGI), extracted from the World Bank database. Following the research of Kaufmann, Kraay, and Mastruzzi (2009), and Pinkowitz et al. (2015), we used an average of the six indicators, as a proxy of the overall governance of a country. Furthermore, we used the Anti-Director Index as a proxy of the Shareholder Right Index (SRI).For financial developments, the Stock Market Capitalization, and the Domestic Credit provided by banks are used as proxies. The data on Stock Market Capitalization, and the Domestic Credit by banks are obtained from the World Bank.

4. Empirical Results

At the first, summary statistics is provided and then regression results of panel data are presented for both regions separately.

4.1. Summary Statistics

The descriptive statistics for the firm specific variables, and formal institutions for Europe and Asia pacific regions are presented at table A3. The table shows the maximum, and the minimum values for different, firm specific, variables and formal institutions with respect to Europe and Asia Pacific. The maximum and minimum values of the cash holdings are 53 % and 1 %, respectively, for European firms, and, 58 % and 2 %, respectively, for Asian Pacific firms. Similarly, the maximum and minimum values for other cash holding determinants are presented in the said table.

The table further depicts that cash holdings have a median value of 9.49% in Europe, which is lower than a median value of 11.22 %, for Asia Pacific, depicting that companies in the Asia Pacific region have more cash holdings than that of Europe. A comparison of the formal institutions between Europe and Asia Pacific reveals that the median values of SRI, WGI, stock market capitalization and domestic credit provided by banks are 3.50, 87.79, 61.20and, 156.01, respectively, for Europe, and 4.5, 72.87, 82.84 and 151.04 respectively for Asia Pacific. Median values of SRI, and stock market capitalization for Europe, are lower than those on Asia Pacific, which means that the shareholder rights are more and better protected in Asia Pacific countries, than in Europe. The median value of WGI, and the domestic credit provided by banks are higher than that of Asia Pacific which shows that the overall country governance, and credit markets in Europe are better than those in Asia Pacific.

Table A3: Descriptive Statistics

	EUROPE					ASIA PACIFIC					DIFFERENCES	
	Mean	**Median**	**Max**	**Min**	**StdDev**	**Mean**	**Median**	**Max**	**Min**	**StdDev**	**Mean**	**Median**
SRI	3.76	3.5	5.00	2.00	0.98	4.00	4.5	5.000	1.00	0.83	-0.24	-1.00
WGI	83.71	87.79	98.88	14.77	16.02	66.47	72.87	97.80	0.00	20.2	17.24	14.92
Mktcap	80.5	61.2	263.00	0.00	58.31	181.21	82.84	1256.64	6.78	308.65	-100.72	-21.64
Domcrdt	158.38	156.01	248.93	18.80	43.03	147.17	151.04	363.25	0.00	104.01	11.20	4.97
CH	13.37%	9.49%	53%	1%	12.2%	14.46%	11.22%	58%	2%	15.13%	-1.09%	-1.74%
INVST	4.08%	3.12%	16%	0%	3.54%	37.24%	4.09%	69%	0%	79.95%	-33.16%	-0.97%
CF	7.53%	6.03%	51%	-14%	11.02%	16.43%	7.89%	95%	-17%	25.00%	-8.91%	-1.86%
DIVTA	2.23%	1.37%	16%	0%	2.92%	55.34%	1.49%	73.9%	0%	148.30%	-53.11%	-0.11%
INTANG	27.59%	13.70%	163%	0%	36.62%	9.49%	1.03%	163%	0%	27.41%	18.10%	12.67%
LEVDBT	22.55%	21.03%	62%	0%	16.44%	18.31%	16.12%	61%	0%	18.40%	4.23%	4.91%
LnTA	6.505	6.308	11.02	2.63	2.082	4.68	5.054	9.33	3%	2.515	1.825	1.254
NWC	0.97%	1.14%	36%	-31%	16.28%	2.55%	2.49%	0.37	-35%	15.16%	-1.57%	-1.35%
ROA	3.55%	3.97%	21%	-23%	7.95%	2.56%	3.28%	0.19	-31%	8.72%	0.99%	0.70%
Zscore	2.93	2.36	11.71	0.25	2.31	2.72	1.98	12.77	9%	2.59	0.20	0.38

Note: This table provides mean, median, max, min and standard deviation and differences of mean and median for Europe and Asia pacific in respect of cash holdings, shareholder right index, overall country governance, market capitalization and domestic credit provided by bank as percentage of GDP and other firm specific variables. All variables are defined in table A1.

4.2. Regression Results of Formal Institutions and Firm Specific Determinants

Table A4 contains the results of our study, specifically pertaining to the cash holding determinants in Europe. Although, the base equation is 3.1, in order to analyze the impact of formal institutions on cash reserves, bit by bit, there were four regressions (i) to (iv) that were run for Europe, as shown in table A4. Regression (iv) of table A4 estimates the equation 3.1.

Table A4: Europe Regression analysis predicting influence of formal institutions and firm specific variables on cash holdings

Variables	(i)	(ii)	(iii)	(iv)
SRI	0.00***	0.00***	0.00***	-0.006***
	(46.11)	(10.02)	(-2.45)	(-9.980)
WGI		-0.001***	-0.001***	-0.001***
		(-22.07)	(-23.41)	(-29.020)
MKTCAP			0.0002***	0.0001***
			(15.20)	(10.880)
DOMCRDT			0.00003	0.0001***
			(0.93)	(5.085)
LNTA				-0.002***
				(-6.784)
LEVDBT				-0.109***
				(-30.232)
DIVTA				-0.176***
				(-7.629)
ZSCORE				0.020***
				(45.670)
INVST				-0.362***
				(-24.096)
INTANG				-0.052***
				(-39.014)
CF				0.038***
				(7.246)
ROA				-0.098***
				(-9.658)
NWC				-0.243***
				(-69.017)
C	0.11***	0.18***	0.19***	0.23***
	(55.69)	(55.69)	(51.06)	(54.75)
R-square	0.00	0.04	0.06	0.49
Obs	1304	1304	1304	1304

Note: This table presents regression results of formal institutions and firm specific variables on cash holdings in respect of Europe. The period of study is 2007–2016. There are 13,040 firm-years from 20 European countries. All variables are defined in table A1. In column (i) to (iv), EGLS (PCSE), regression results of different models are reported. Winsorization of variables is made at the 5% level. In parentheses, robust t-statistics are reported. *P<0.10; **P<0.05;***P<0.01

In Model (i) of table A4, only SRI is taken as the explanatory variable, and the cash holdings are taken as the dependent variable. Contrary to the study of Dittmar et al. (2003), and the Tradeoff Theory, the SRI is positive and significant, but the adjusted R square is only 0.07%. In the regression (ii), we add WGI, in order to analyze its effect on cash holdings, along with the SRI. The negative coefficient of WGI is negative, which indicates that an improvement in country governance reduces the need to hoard cash. The SRI is still positive in model (ii). However, the adjusted R square is only 2%, which casts doubts on the validity of the said two variables, especially in terms of explaining the variation in the cash holdings in Europe.

In regression (iii), we add proxies of financial development, including stock market capitalization and domestic credit by banks as a percentage of the GDP. The results show that the credit market development, and the stock market development have a positive impact on the cash holdings, which in turn indicates that when it is easier to hoard cash, companies hold cash which is supportive of the teachings of the Agency Theory. This interpretation is of course partially supported because of the insignificance of the credit market development. The economic significance of the model, however, does not increase visibly, and the adjusted R square could be increased to only 3 % in regression (iii).

Finally, firm specific variables were added to the formal institutions in regression (iv). In this model, the SRI turns to negative, which is in accordance with the Agency Theory, and the researches of Ferreira and Vilela (2004), and Akguc and Choi (2013). The negative sign of shareholder right is indicative of agency problems in European firms.

Results reveal that WGI have a negative influence on cash holdings, which shows that thr shareholders of the countries with a strong country governance have the power to force the managers of the firms to reduce cash holdings. Both the proxies of financial markets' development are positively significant, which shows that firms with strongly developed markets can hoard more cash.

The results of the regression (iv) in table A4, for firm specific factors, state that the size influences the cash reserves negatively. This corresponds to the studies of Qiu and Wan (2015) and Lins et al. (2010), and also in accordance with Trade-off Theory.

Furthermore, this study identifies that leverage has a negative influence on cash holdings. This is in line with the studies of Al- Najjar (2013), Akguc and Choi (2013), Guizani (2017) and, Chen Li, Xiao and Zou (2014). Thus, the results reveal that, firms with lower leverage have easy access to external financing which they eventually use to fund their investments, and so have to be less dependent on cash holdings. This finding for European companies supports our hypothesis H2.

The results indicate that dividend payments negatively influence cash holdings for European firms. This corresponds to the researches of Khieu and Pyles (2012), and Al-Najjar (2013), and hypothesis H3.

For the companies in Europe, results reveal that the z-score has a positive impact on cash holdings. Subramaniam et al. (2011) and Harford, Mansi and Maxwell (2008) also indicate the same findings in their studies. The results of this study also confirm the validity of the hypothesis, H4, which claims that financial distress has a positive/ negative influence cash reserves of the firms.

The results indicated in Table A4 indicate that there is a negative effect of intangibles on cash holdings. Intangibles are used as a proxy of firm's growth. Bigelli and Vidal (2012), and Khieu and Pyles (2012) also find the same revelations in their studies. However, Iskandar-Datta et al. (2014), Foley et al. (2007) and Chen et al. (2015) identify a positive association between growth and cash reserves. This result also confirms our hypothesis, H5, which states that there is a significant positive/ negative impact of growth on cash reserves.

The results stated in table A4 further reveal that there is a positive impact of investments on cash reserves of the European firms. Dittmar et al. (2003) and Hoberg et al. (2014) also find that both the variables have a positive relationship with each other. The results of the study also confirm the hypothesis H6, which states that investments have a positive/ negative effect on cash holdings.

Further on in the study, the research reveals that cash flows have a positive influence on cash reserves of the European firms. Free Cash flow Hypothesis and the Pecking Order Theory also postulate the same relationship. Other studies also validate the same relationship between the said variables (D'Mello et al., 2008; Kalcheva & Lins, 2007; Weidemann, 2016). This also confirms the hypothesis H7. The results stated in table A4 further reveal that profitability carries a negative association with cash holdings. This finding, however, shows a contrast to the studies of Ferreira and Vilela (2004), and Al-Najjar and Belghitar (2011), who identify the positive effect of profitability, on cash holdings.

It is also evident from table A4 that, for European firms, the net working capital influences cash holdings in a negative manner. The same results are identified by Al-Najjar (2013) and Liu et al. (2014). Moreover, these results also correspond to hypothesis, H9 and the Tradeoff Theory.

In table A5, the results for Asia Pacific are presented at regression (i) to (iv). Through regressions (i) to (iv), the SRI is positive. The Shareholder Power Hypothesis supports this positive relationship. This means that the shareholders in the country with a strong shareholder right may allow the managers of the firms to hoard cash, due to the reason that there prevails more social trust in their respective country (Dudley & Zhang, 2016). Also, the substitute hypothesis states that the shareholders are less concerned with the additional cash holdings that are held by the managers.

The value of WGI is also positive, and significant in regression (ii) and (iii) that is presented in table A5. Furthermore, it is also positive in regression (iv), but that value is insignificant. The positive relationship between WGI, and cash holdings is explained by Kalcheva and Lins (2007). To them, in countries with strong governance, shareholders are less concerned with the cash holding tendency of the managers. Pinkowitz et al. (2015) also find that WGI has a positive impact on cash holdings, specifically for US and other foreign companies, though this relationship is insignificant. Also, Najjar and Basil (2015) find that there is an insignificant relationship between governance and cash holdings for SMEs in the UK.

Both proxies of the financial market developments are negative in regression (iii) and (iv), as seen in table A5. This is in line with the Shareholder Power Hypothesis, and contradictory to the Agency View for cash holdings.

Table A5: Asia Pacific Regression Analysis Predicting Influence of Formal Institutions and Firm Specific Variables on Cash Holdings

Variables	(i)	(ii)	(iii)	(iv)
SRI	0.01***	0.01***	0.01***	0.006***
	(13.07)	(9.60)	(12.57)	(5.727)
WGI		0.0001*	0.0003***	0.0001
		(2.20)	(5.39)	(-0.231)
MKTCAP			0.00003***	0.00001**
			(-11.06)	(-2.807)
DOMCRDT			0.00003***	0.00002**
			(-3.33)	(-2.655)
LNTA				0.010***
				(29.401)
LEVDBT				-0.174***
				(-43.898)
DIVTA				-0.004***
				(-7.185)
ZSCORE				0.021***
				(74.483)
INVST				0.017***
				(22.427)
INTANG				-0.019***
				(-8.367)
CF				0.035***
				(10.901)
ROA				-0.220***
				(-26.780)
NWC				-0.102***
				(-24.698)
C	0.09***	0.09***	0.07***	0.05***
	(27.51)	(26.77)	(16.97)	(10.88)
R-square	0.00	0.01	0.01	0.28
obs	3358	3358	3358	3358

Note: This table presents regression results of formal institutions and firm specific variables on cash holdings in respect of Asia Pacific. The period of study is 2007–2016. There are 33,580 firm-years from 15 Asia Pacific countries. All variables are defined in table A1. In column (i) to (iv), EGLS (PCSE), regression results of different models are reported. Winsorization of variables is made at the 5% level.. In parentheses, robust t-statistics are reported. *P<0.10; **P<0.05;***P<0.01

It is important to mention that the coefficient value of WGI, stock market capitalization and domestic credit provided by the banks are very trivial in terms of value. These trifling coefficients values show that WGI, and the financial development variables have an invisible effect on cash holdings for Asia Pacific, though these are statistically significant for the financial market development.

In regression (iv), the effect of different firm specific factors on cash holdings is also shown for Asia Pacific. The results reveal that leverage, dividend, intangibles, net working capital and profitability are negatively associated with cash holdings, whereas the z-score and cash holdings have a positive influence on cash holdings in the Asia Pacific region. It must be noted that these results are coherent with the results of Europe. The effects of size and investments, on cash holdings for Asia Pacific, are contradictory to those of Europe. In Asia Pacific, the size of the firm has a significant positive effect on cash holdings. A positive, significant relationship between size, and cash holdings, in the case of Asia Pacific, corresponds with the studies of Ozkan and Ozkan (2004) and, Liu, Luo and Tian (2015), and the Shareholders' Protection Hypothesis.

Similarly, investments influence cash holdings positively for firms in the Asia Pacific region, which happens to be different from Europe, where the relationship between the said variables is negative. The same, positive relationship between capital expenditures and cash holdings is investigated by Harford, Mansi, and Maxwell (2008) and, Huang and Kisgen (2013).

To sum up, formal institutions including SRI, WGI, and the financial market developments of Asia Pacific, and Europe are different from each other, due to which there is evidence of varying effects on cash holding decisions. The SRI in Europe has a negative effect on the cash reserves, whereas in Asia Pacific, this relationship is positive. The negative relationship between SRI, and cash holding is as per the Agency Theory, and a positive relationship in Asia Pacific is supported by the Shareholder Power Hypothesis. From the results of the study, it may be deduced that shareholders in Asia Pacific have more trust in the managers of their firms, as compared to those in Europe.

The same explanation is valid for the impact of worldwide governance on cash holdings for Europe and Asia pacific. The negative influence of WGI on cash holdings in Europe indicates that the shareholders of the firms operating in European countries, with good governance, do not trust the managers of their firms due to agency concerns, and may force them to disgorge the cash level. On the other hand, in Asia Pacific, a positive relationship between WGI, and cash holdings, show that the shareholders of the firms in the countries specific to Asia

Pacific, allow managers of the firms to hoard more cash, when the overall governance of the country is good. In Asia Pacific, however, the effect of WGI, on cash holdings is insignificant, especially when the formal institutions are combined with the firm specific factors.

Similarly, a positive relationship between the financial market development, and cash holdings in Europe, is an indication of agency motives, whereas there is a negative effect of the financial market development, on the cash holdings in Asia Pacific, which supports the argument in favor of the Shareholder Power Hypothesis. As far as the effect of the firm specific variables, on cash holdings in Asia Pacific and Europe is concerned, we find similarities in both the regions for most of the factors. The difference of effect in both the regions is found mainly in their size and investments.

4.3. Robustness of Multiple Analysis

In this sub-section, different tests are applied in order to check the robustness of our findings that are presented in tables A4, and A5. The robustness of the findings is tested by making changes in the time period, and the estimation techniques applied to the variables and determinants in question.

4.3.1. Regression with Different Time Periods

One way to verify the robustness of the results that are presented in table A4& A5, is to divide the total periods into two parts, and then run the model separately for each period. We divide our sample period of ten years into two sub-samples i.e. one period from 2007 to 2011, and the other from 2012 to 2016.The regression is run for both periods with respect to Europe and Asia Pacific. The results of the period wise regressions are presented in tables A6 and A7, for Europe and Asia Pacific, respectively.

It is revealed from columns (2) and (3) of the table A6, that the results for Europe are the same as those that were extracted from our basic regressions that are presented in table A4. Only one change is observed, which pertains to the credit market development for the period of 2006 to 2011, i.e. it turns to insignificant. Furthermore, it is shown in column (2) and (3) of table A7, that for the Asia Pacific region, the regression results are the same as they are in the basic regression that was run and presented in table A5.

Table A6: Europe Regression analysis predicting influence of formal institutions and firm specific variables on cash holdings

Variables	EGLS (PCSE)	EGLS (PCSE)	EGLS (PCSE)	GMM	WLS
	2007-2016	**2007-2011**	**2012-2016**	**2007-2016**	**2007-2016**
SRI	-0.006***	-0.004***	-0.006***	-0.007***	-0.006***
	(-9.980)	(-5.289)	(-10.411)	(-5.537)	(-5.163)
WGI	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***
	(-29.020)	(-22.965)	(-27.628)	(-19.184)	(-19.118)
MKTCAP	0.0001***	0.0001***	0.0001***	0.0001***	0.0001***
	(10.880)	(4.446)	(18.517)	(4.628)	(6.236)
DOMCRDT	0.00001***	0.00001	0.00001***	0.00001**	0.00001**
	(5.085)	(0.930)	(9.357)	(3.247)	(3.136)
LNTA	-0.002***	-0.002***	-0.001***	-0.002***	-0.003***
	(-6.784)	(-7.023)	(-4.779)	(-3.561)	(-6.484)
LEVDBT	-0.109***	-0.123***	-0.115***	-0.151***	-0.128***
	(-30.232)	(-26.693)	(-26.732)	(-17.832)	(-19.556)
DIVTA	-0.176***	-0.198***	-0.161***	-0.368***	-0.136***
	(-7.629)	(-6.848)	(-5.607)	(-4.685)	(-3.535)
ZSCORE	0.020***	0.021***	0.019***	0.019***	0.021***
	(45.670)	(36.654)	(34.688)	(16.638)	(37.703)
INVST	-0.362***	-0.397***	-0.306***	-0.448***	-0.367***
	(-24.096)	(-21.932)	(-17.168)	(-11.022)	(-13.662)
INTANG	-0.052***	-0.048***	-0.053***	-0.061***	-0.054***
	(-39.014)	(-29.977)	(-37.026)	(-19.383)	(-20.436)
CF	0.038***	0.036***	0.032***	0.022**	0.023**
	(7.246)	(4.690)	(5.863)	(2.352)	(2.621)
ROA	-0.098***	-0.127***	-0.116***	-0.191***	-0.159***
	(-9.658)	(-9.639)	(-9.526)	(-5.439)	(-10.947)
NWC	-0.243***	-0.253***	-0.251***	-0.269***	-0.282***
	(-69.017)	(-55.352)	(-59.696)	(-32.423)	(-46.056)
C	0.23***	0.246***	0.216***	0.26***	0.26***
	(54.75)	(47.532)	(44.022)	(33.14)	(37.50)
R-square	0.49	0.584	0.582	0.29	0.30
Obs	13,040	13,040	13,040	13,040	13,040

Note: This table presents regression results of formal institutions and firm specific variables on cash holdings in respect of Europe for 13,040 observations from 20 countries. In column (1) of the table, regression results of EGLS (PCSE) are reported for the period 2007 to 2016 for reference purpose. In column (2), regression results of EGLS (PCSE) for the year 2007 to 2011 are stated. In column (3), regression results of EGLS (PCSE) for the year 2012 to 2016 are presented. Columns (4) and (5) report regression results of GMM and WLS methods respectively for the period 2007 to 2016. All variables are defined in table A1. Winsorization of variables is made at the 5% level. In parentheses, robust t-statistics are reported.*P<0.10; **P<0.05;***P<0.01.

4.3.2.Regression with Instrument Variables

One of the ways to deal with possible endogeneity among cash holdings, dividend, leverage and investments, is to apply the Instrumental

Variable (IV) Estimator. A standard form of the models is a two-stage least squares (2SLS), but a generalized method of moment (GMM) estimators is also used (Amess, Banerji & Lampousis, 2015). The results of the GMM for Europe and Asia pacific are presented in table A6 and A7, respectively.

In column (4) of table A6, the regression results of the Generalized Method of Moment (GMM) for Europe are presented. Interestingly, similar results are found in our base regression in table A4. The results of GMM regression are presented for Asia Pacific in column (4) of table A7.With some deviations, the results of this regression confirm our findings for basic regression, i.e. the generalized least square (GLS), in table A5.

4.3.3.Robustness with WLS

Following Pinkowitz et al. (2015), we apply the Weighted Least Square (WLS) method to confirm our findings in table A4, and A5 for Europe and Asia Pacific, respectively. The results of WLS for Europe are reported in column (5) of table A6, and for Asia Pacific, the results are presented in column (5), of tableA7.

Table A7: Asia Pacific Regression analysis predicting influence of formal institutions and firm specific variables on cash holdings

Variables	EGLS (PCSE)	EGLS (PCSE)	EGLS (PCSE)	GMM	WLS
	2007-2016	2007-2011	2012-2016	2007-2016	2007-2016
SRI	0.006***	0.006***	0.005***	0.005***	0.005***
	(5.727)	(5.622)	(3.779)	(3.478)	(4.048)
WGI	0.00001	0.00001	0.00001	0.00001	0.00001
	(-0.231)	(0.0730	(-0.739)	(0.980)	(0.743)
MKTCAP	0.00001**	0.00001***	0.00001	0.00001	0.00001
	(-2.807)	(-3.284)	(-1.189)	(-0.897)	(-1.546)
DOMCRDT	0.00002**	0.00002**	0.00002*	0.00002*	0.00002*
	(-2.655)	(-2.237)	(-1.895)	(-1.972)	(-2.050)
LNTA	0.010***	0.010***	0.010***	0.009***	0.009***
	(29.401)	(24.794)	(25.810)	(21.181)	(22.017)
LEVDBT	-0.174***	-0.166***	-0.176***	-0.159***	-0.159***
	(-43.898)	(-35.836)	(-38.270)	(-31.08)	(-32.55)
DIVTA	-0.004***	-0.004***	-0.003***	-0.002***	-0.003***
	(-7.185)	(-5.162)	(-4.261)	(-2.652)	(-3.747)
ZSCORE	0.021***	0.021***	0.021***	0.021***	0.021***
	(74.483)	(61.847)	(60.527)	(59.884)	(62.589)
INVST	0.017***	0.015***	0.018***	0.018***	0.017***
	(22.427)	(17.467)	(19.481)	(16.037)	(16.800)
INTANG	-0.019***	-0.019***	-0.015***	-0.017***	-0.017***
	(-8.367)	(-7.136)	(-5.740)	(-5.866)	(-6.106)
CF	0.035***	0.032***	0.041***	0.023***	0.025***
	(10.901)	(8.227)	(11.092)	(5.680)	(6.708)
ROA	-0.220***	-0.189***	-0.245***	-0.221***	-0.216***
	(-26.780)	(-19.227)	(-24.825)	(-21.71)	(-22.38)
NWC	-0.102***	-0.105***	-0.090***	-0.105***	-0.106***
	(-24.698)	(-21.934)	(-18.550)	(-19.37)	(-20.64)
C	0.05***	0.040***	0.048***	0.06***	0.06***
	(10.88)	(7.996)	(9.106)	(9.15)	(9.970
R-square	0.28	0.348	0.349	0.20	0.20
Obs	33,580	33,580	33,580	33,580	33,580

Note: This table presents regression results of formal institutions and firm specific variables on cash holdings in respect of Asia Pacific for 33,580 observations from 15 countries. In column (1) of the table, regression results of EGLS (PCSE) are reported for the period 2007 to 2016 for reference purpose. In column (2), regression results of EGLS (PCSE) for the year 2007 to 2011 are stated. In column (3), regression results of EGLS (PCSE) for the year 2012 to 2016 are presented. Columns (4) and (5) report regression results of GMM and WLS methods respectively for the period 2007 to 2016. Winsorization of variables is made at the 5% level. All variables are defined in table A1. In parentheses, robust t-statistics are reported.*P<0.10; **P<0.05;***P<0.01.

For Europe, the signs of the coefficients of the formal institutions and firm specific variables, and their level of significance, are almost the same as the ones for the base regression presented in table A4. Similarly, for Asia pacific, the signs of the coefficients of SRI, equity market development and firm specific variables, and their level of significance, are almost the same as the ones for the base regression presented in tableA5. Only Worldwide Governance Index (WGI) turns to positive in WLS, although the value is still insignificant. Overall, the results of the WLS regression confirm the robustness of this study's findings of the base regression presented in table A4 and A5.

5. Conclusions

In this study, an investigation has been carried out, for the first time, to analyze the variation in cash holdings, in two important regions of the world i.e. Europe and Asia Pacific, for the period ranging between the years of 2007 to 2016. The results of the analysis in both the regions uncover some interesting facts about the relationship between formal institutions, and firm specific factors, and cash holdings in both the regions.

In Europe, the Shareholders' Right Index, and the Worldwide Governance Index have a negative influence on the cash holdings. Whereas, it must be noted that the financial market development is positively associated with cash holdings for European countries. On the contrary, in Asia Pacific, the Shareholders' Right Index is positively related to cash holdings, while the financial market development is negatively associated with cash reserves. Overall, the governance index has an insignificant effect on cash holdings in the Asia Pacific region.

The negative relationship of Shareholders' Right, and the overall governance with cash holdings in Europe, is in accordance with the Agency View. Moreover, the positive effect of the Shareholders' Right on cash reserves in Asia Pacific, is derived by the Shareholders' Power Hypothesis. Similarly, the positive relationship of the financial market development, with cash holdings in Europe, indicates that when it is relatively easier to raise funds, companies tend to hold more cash. This is also supportive of the Agency View. The negative relationship of the financial market development, with cash holdings in Asia Pacific, shows that the Shareholders' Power Hypothesis prevails in the region, and shareholders of the firms, in the countries with less developed markets, allow the managers to hoard more money in order to avoid the cost of raising funds.

In Europe and Asia Pacific regions, leverage, dividend, growth, profitability and networking capital cast a negative effect on cash holdings, while financial strength, and cash flows influence the cash reserves positively. This indicates the application of transaction, and precautionary motives, in both the regions. However, size and investments have a significantly negative effect on the cash holdings in Europe, whereas, the said, firm specific variables, have a significantly positive effect on the level of cash in Asia Pacific. This difference may be attributed to the application of the Agency View in Europe, and the prevalence of Shareholders' Power Hypothesis in the Asia Pacific region.

This study is the first endeavor of its kind to analyze the impact of firm specific variables, and formal institutions, on cash holdings across two important regions, including Europe and Asia Pacific. The results of this study may be helpful for international managers, and finance scholars. The application of different theories of finance, including the Pecking Order Theory, Tradeoff Theory, Shareholders' Rights Hypothesis and the FCF Hypothesis, in both regions of the world, are also analyzed in this study.

This research is critical for international managers and financial scholars, as it is the first study to make a comparison between Asia Pacific and Europe, with respect to the impact that the firm specific variables, and the formal institutions have on cash holdings. Different theories including Free Cash Flows (FCF), Shareholders' Right Hypothesis, and the Tradeoff Theory are analyzed to understand and extract the cash holding determinants.

The literature reveals that apart from the formal institutions, and firm specific factors, the national culture also has a pronounced impact on the level of cash holdings in a country or region. Future research may be carried out to analyze the effect of the national culture, along with the formal institutions and firm specific factors on cash holding decisions, not only limited to Europe and Asia Pacific, but also for the other regions of the world. This worldwide comparison promises to be very useful for the corporate practitioners, and finance scholars.

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Influence of Perceived Corporate Social Responsibility on Brand Image, Satisfaction and Trust

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Abstract

The purpose of this research is to analyse the influence of consumers' perception of Corporate Social Responsibility (CSR) practices on a brand's image, satisfaction and trust in Pakistan. While the strategic importance of CSR, as a corporate marketing tool, is fairly established in the developed world, the concept is still finding its ground in developing countries. This study focuses on the consumers of the apparel industry of Pakistan, and has used the Structural Equation Modelling (SEM) to test the model. The findings show that the perceived CSR affects brand image in a positive manner, but has no impact on consumer satisfaction and trust directly. Brand image, however, has a favourable effect on both satisfaction and trust, and completely mediates the relationship between perceived CSR, and satisfaction and trust. This study provides insights to apparel manufacturers to formulate corporate marketing strategies that aim at enhancing their brand image through CSR activities.

Keywords: Corporate social responsibility, brand image, trust, satisfaction, structural equation modelling.

JEL Classification: M10, M14, M31.

1. Introduction

Corporate Social Responsibility (CSR) comprises of discretionary actions by organizations due to their moral and ethical obligations towards their various stakeholders. The domain of CSR assumed importance from the 1950's, when Bowen (1953) asked what responsibilities were businesses expected to assume towards society. Davis (1960) further advocated CSR, and defined it as those actions that were taken by businesses for reasons not directly related to the firm's economic and technical interests. A review by Murphy (1978) characterized the 60's and 70's as periods of 'awareness' and 'issues' of CSR, where businesses recognized their responsibility towards social affairs and environmental issues, and increased their

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charitable donations to various causes. Furthermore, corporations were driven towards social responsibility without the expectation of any impact on the financial performance of their business (Lee, 2008). According to Carroll (1979), the societal expectation of CSR, from corporations, included their consciousness towards their economic, legal, ethical and philanthropic responsibility. CSR activities have been posited to include corporate philanthropy, minority support programs, cause-related marketing, socially responsible employment and manufacturing practices, as well as community organizations' goals advancement. At the end of the 1990's, CSR was advocated by all members of the society, including governments, corporations, academics and consumers alike.

In the more recent times, CSR has become a universal notion, and is used strategically by organizations to enhance business profitability. Porter and Kramer (2002) urged businesses to use philanthropy in a manner that was strategic in nature, in order to open up new business avenues and opportunities in the long-run. They advocated creating 'shared value' for the company, as well as the society, which would be a novel approach towards achieving economic success. Now, companies are increasingly focusing their efforts towards CSR activities with the aim to address the concerns of different stakeholders, such as consumers, employees, governments, shareholders, etc., so that these actions can result in profitable responses from the concerned stakeholders (Sen & Bhattacharya, 2001). It is believed that organizations should extend their marketing outlook, so as to include other stakeholders, besides consumers, and integrate their marketing activities with the CSR initiatives that they wish to undertake and represent (Maignan & Ferrell, 2004). CSR can serve as a tool for companies to differentiate their product from competitors, and strengthen their brand identities. Effective corporate marketing strategies cannot be formulated, if the key role of CSR is ignored (Hildebrand, Sen & Bhattacharya, 2011).

Most of the previous discussions on CSR have been focused towards and in the developed economies of the world, but limited studies have been carried out in the developing economies such as Pakistan. In the developed world, consumers are conscious of CSR responsibilities, and consider this aspect as a criteria when making their purchase decisions. Attitude and loyalty towards the company and brand are positively influenced by CSR activities undertaken by the business (Arli & Lasmono, 2010). However, it must be noted that CSR activities and initiatives are still in their nascent stages in Pakistan. It is largely due to the disinterest of the government and the relevant governing bodies in enforcing regulations, low pressure by media and corporate shareholding that is concentrated in a few hands. Social responsibility is restricted to corporate philanthropy, and minimal importance is given to the responsibilities towards other stakeholders, such as the consumers (Ahmad, 2006).

This research has been undertaken for the purpose of investigating whether different levels of CSR, initiated by the apparel manufacturers of Pakistan, influence the brand image, and consumers' perceptions of satisfaction and trust. Consumers have become increasingly aware of CSR in the last decade (Becker-Olsen, Cudmore & Hill, 2006), and it is now essential to see how this awareness will influence consumer behaviour in relation to the apparel industry. The apparel industry forms a significant part of the country's economy, and no study in Pakistan has yet analysed the perceptions and beliefs of consumers with regard to this industry. This study measures *how* consumers of the apparel industry evaluate CSR activities of the apparel industry, in relation to philanthropy, environmental footprint, attitude towards employees and consumer rights. It also examines the impact of CSR initiatives on brand image, trust and consumer satisfaction. Marketing executives and business managers can use the results of this research to formulate strategies that utilize CSR as a marketing tool.

Keeping this in mind, the research questions to be answered by this study aim to clarify whether perceived CSR has an impact on brand image for consumers? How does brand image affect consumer satisfaction and trust? Does perceived CSR also influence consumer satisfaction and trust? Finally, does a brand's image mediate the relationship between perceived CSR, satisfaction and trust? The rest of the paper is structured so as to extract, and interpret the results in a systematic manner. First, the literature is reviewed and the research hypotheses are developed. Then, the conceptual model that is proposed is validated through the Confirmatory Factor Analysis (CFA), and the Structural Equation Modelling (SEM). The last sections of the paper presents the findings of the analysis, discusses the results and outlines the limitations.

2. Literature Review and Hypotheses Development

2.1. Corporate Social Responsibility

The literature is abound with various definitions of CSR, but there is no consensus on how it should be ultimately defined. The most well-known typology of CSR was given by Carroll (1979), where he classified social responsibility into four categories; economic, legal, ethical and philanthropic. He suggested that for businesses, economic responsibility assumed the highest priority. This was followed by legal, ethical and then philanthropic responsibilities. Economic responsibilities deal with, producing at a profit, what is demanded by consumers. Legal responsibility refers to fulfilling the economic responsibilities within the fair legal framework. Ethical responsibilities are those which require a business to operate in an economically fair and just manner. Philanthropic responsibilities are those activities that a business undertakes in order to improve the overall societal welfare, by attaching itself with a specific cause. A review of the various definitions by Dahlsrud (2006) eventually led to the suggestion of five dimensions of CSR, namely, stakeholder, social, economic, voluntariness and environmental. CSR initiatives have also been postulated to comprise of philanthropy, socially responsible attitude towards employees, safe manufacturing operations, support for minorities, and marketing for social causes (Drumwright, 1994). Thus, CSR can be perceived by consumers in terms of any of these dimensions, and the present study has evaluated the perceived CSR activities in Pakistan as a second-order construct, evaluated in terms of the environment, employees, consumers and philanthropy.

2.1.1. CSR & Brand Image

The idea of "brand picture" was first conceptualized by Levy (1959), when he proposed that items have social and mental qualities and hence, purchasers create enthusiastic associations with the brands. Plummer (1985) said that the brand image formation was initially launched through the social affair of inborn and extraneous traits, advantages, and outcomes that are connected with the brand. A brand's image is fabricated through the communication between the brand, and its stakeholders (Ruão, 2003), and it is actually the purchaser's observation about the brand (Ballantyne, Warren & Nobbs, 2005). A strong brand image makes products seem more attractive, and can lead the consumers into buying more of what they desire, or what appeals to them (Shamma & Hassan, 2011). Corporate communication affects the perception of the brand's image, and leads to the consumers associating their minds freely to that particular product. In the fashion industry, the brand image plays a more important role, as compared to that in the other industries (Carrigan & Attalla, 2001), and even though it can be influenced by a number of marketing activities, CSR is one activity that has a strong impact on brand image (Lion, Macchion, Danese & Vinelli, 2016). According to Becker-Olsen et al. (2006), CSR initiatives can create a positive brand image in the minds of the consumers, and encourages them to actively associate themselves and their loyalties with a particular brand (He & Li, 2011). Due to this business tactic, the players in the fashion industry have realized that CSR is a vital tool in improving their brand's image and eventually sales (Da Giau et al., 2016). A study by Othman and Hemdi (2013) revealed that there was a positive and significant relationship between CSR activities and a brand's image. Thus, the first research hypothesis can be formulated, based on these revelations and studies.

Hypothesis 1: Perceived CSR has a positive impact on brand image.

2.1.2 CSR and Trust

Crosby, Evans and Cowles (1990) defined consumer trust as the belief that a product will behave in a way that it serves the long-term interests of the consumer. Relationships between corporations and consumers can only be maintained in the long run if trust is present. This trust is affected by a shared value system that exists between the company and the consumers, when it comes to important and appropriate behaviours and policies that a company represents (Morgan & Hunt, 1994). An individual experience a greater level of trust, when s(he) is firmly able to believe in the company's promises regarding their CSR activities and higher ethical standards (Kim, 2019; Park, Kim & Kwon, 2017). CSR initiatives by corporations communicate their understanding of core business values to the consumers (Turban & Greening, 1997), and are important in increasing their trust in the company (Aaker, 1996). Injecting and incorporating culturally appropriate ethical principles into the companies' strategic decision-making processes can lead to a higher level of trust of all stakeholders, including consumers (Hosmer, 1994). Moreover, effectively communicating a company's CSR initiatives to consumers can help build trust and this trust can erode if consumers get exposed to negative information about the organization (Bögel, 2019). Thus, the second hypothesis can be built on the above discussion.

Hypothesis 2: Perceived CSR has a positive impact on the consumer's trust.

2.1.3 CSR and Satisfaction

Consumer satisfaction is not inherently present in a product, but rather, it comprises of an individual's perceptions of a product's characteristics and how they relate to his/her personality and circumstances (Boshoff & Gray, 2004). Ueltschy, Laroche, Eggert and Bindl (2007) observed that a similar experience with different products can lead to varying levels of satisfaction, for different individuals. The perceived value of a particular product can also lead to higher levels of satisfaction (Mithas, Krishnan & Fornell, 2005). The literature suggests that CSR activities can effect consumer satisfaction, as consumers are likely to be more satisfied by the products and services offered by firms that are actively practicing the CSR (Luo & Bhattacharya, 2006). If organizations behave in a socially responsible manner, and engage in CSR activities and initiatives, it will lead to a higher level of satisfaction in the consumers (He & Li, 2011; Kassinis & Soteriou, 2015; Walsh & Bartikowski, 2013). Thus, it can be assumed that the perception of CSR initiatives by corporates can positively affect the consumer satisfaction, and hence, keeping this in mind I can put forward the following research hypothesis.

Hypothesis 3: Perceived CSR has a positive impact on consumer's satisfaction.

2.2. *Brand Image, Trust & Satisfaction*

Brand image has been defined by Kotler (2001) as "the set of beliefs, ideas, and impressions that a person holds regarding an object". It has also been defined as "a set of perceptions about a brand, as reflected by brand associations in consumer's memory" (Keller, 1993, p 1-22). A strong brand might enhance its consumer's satisfaction, which might compel them to recommend the brand to those within their network of different relationships (Aaker, 1991). Romaniuk and Sharp (2003) noted that when brand attributes are associated with positive images, they produce favourable brand attitudes in consumers, which leads to a higher level of satisfaction with the brand. Also, a strong perception of CSR can enhance the image of the brand, which can have an impact on the consumers' opinion of the organization (Sen & Bhattacharya, 2001). This leads to the formation of the following hypotheses of this study.

Hypothesis 4: Brand image has a positive impact on Consumer Satisfaction

Hypothesis 4a: Brand image mediates the relationship between perceived CSR and consumer satisfaction.

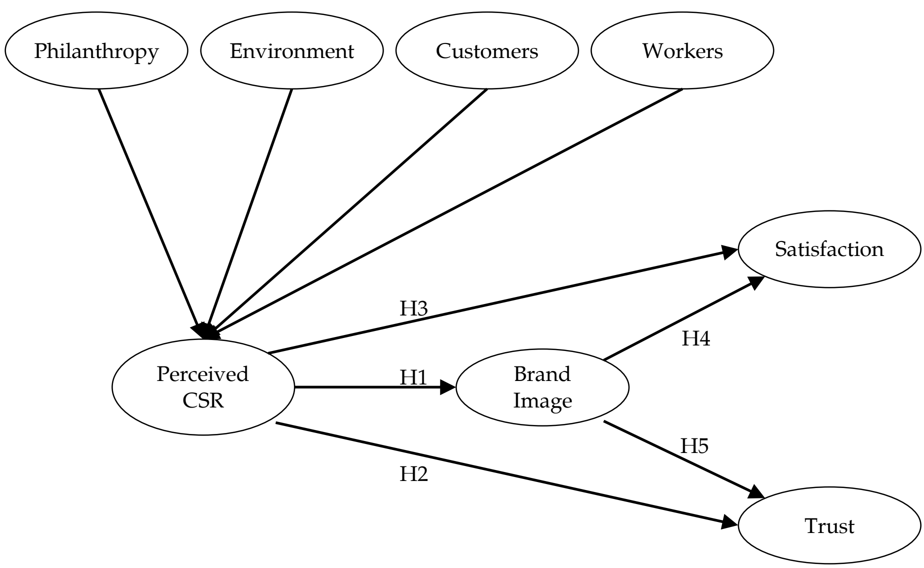
The perception of a brand in the market has the ability to create optimistic outcomes, and results in increased reciprocity between the brand and the buyer (Creed & Miles, 1996). When consumers realise that a brand has a favourable standing in the minds of other buyers, they will be inclined towards developing a relationship of trust with the particular brand in question and purchase the product. Empirical research also supports the impact of a strong brand image on the consumer's ability to trust (Esch, Langner, Schmitt & Geus, 2006; Ming, Ismail & Rasiah, 2011), and thus the fifth hypothesis is put forward.

Hypothesis 5: Brand image has a positive impact on trust.

Hypothesis 5a: Brand image mediates the relationship between perceived CSR and trust.

The above hypotheses leads to the following framework as shown in Figure 1.

Figure 1: Conceptual Model



3. Methodology

This study falls under the positivist paradigm. A quantitative research design based on cross-sectional survey methodology was used. The research approach is deductive in nature, as the hypotheses have been developed based on existing theory and the research strategy has been designed accordingly to test the constructed hypotheses.

3.1. Sample

The target population for this study consists of the consumers of the apparel industry of Pakistan. The population sample has been selected via stratified random sampling and young people between the ages of 18-26 have been targeted for this purpose. Moreover, this study uses primary data, which has been collected through structured questionnaires. It must be noted that the questionnaire administrator was mostly available to answer any questions that the respondents had, and any confusion or ambiguity was cleared at the time of filling the questionnaire. In some cases, the respondents filled the questionnaire in the absence of the administrator and returned these at a later time. 300 respondents in three universities of Lahore were surveyed, out of which 217 respondents returned the questionnaires. 202 questionnaires were usable, as the others either had missing data or were discarded due to extremity bias. All the responses were measured on a 5-point Likert Scale where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

The first section of the questionnaire contained demographic information about the respondent, which included age, gender, family income and background. The questionnaire had separate sections measuring the different variables used in the study. 18 items were adopted from the study of Swaen and Chumpitaz (2008) to measure CSR, while six items were included to measure the aspect of trust. 14 items were taken from the study conducted by Sonodh, Wahid, Omar, Ismail and Harun (2007), to measure the brand image, while five items were included for the measurement of consumer satisfaction.

3.2. Measures

Perceived Corporate Social Responsibility: The only independent variable in this study is CSR. The instrument used to measure this variable was developed by Swaen and Chumpitaz (2008) and contained 18 items.

Brand Image: The mediating variable in this study was Brand Image, which was measured using 14 items that were adopted from Sonodh et al. (2007).

Trust: The first dependent variable is Trust, which was assessed using the instrument developed by Swaen and Chumpitaz (2008), and contained six items.

Consumer Satisfaction: The second dependent variable that is used in the study is Consumer Satisfaction. This was operationalized by the instrument developed by Sonodh et al. (2007), and included five items.

4. Analysis of Findings

4.1. Descriptive Statistics

Table 1 reports the demographic characteristics of the sample. 64.4% of the respondents were females, and 35.6% were males. Only 23.7% were married, while 76.2% were still single. Most of the respondents were well-educated, with 56.4% of them having a Graduate degree, and 15.8% with a Master's degree. 9.9% had acquired Professional degrees, while 17.8% had other diplomas or qualifications.

Table 1: Demographics.

Characteristics	N	Percentage
Gender		
Male	72	35.6%
Female	130	64.4%
Education		
Graduate	114	56.4%
Masters	32	15.8%
Professionals	20	9.9%
Other	36	17.8%
Marital Status		
Single	154	76.2%
Married	48	23.7%

4.2. Measurement Model Assessment – Confirmatory Factor Analysis

The hypothesized relationships among the constructs in the proposed framework were tested using the 'Structural Equation Modelling' (SEM). SEM is a multivariate analysis technique that is used to address several relations that are present simultaneously in a model (Kerlinger & Lee, 2000). It is effective when there are structural relationships present in the models with measured variables and latent constructs. SEM requires the analysis of two models: a measurement model and a regression model. The measurement model is analysed using the Confirmatory Factor Analysis (CFA), which tests the reliability and validity of the research instruments, and determines the overall fitness of the measurement model (Bartholomew & Knott, 1999).

The CFA was conducted on four latent variables, or constructs, to confirm the factor structure between them, as well as the items used to measure the structure. The results are indicated in Table 2. Brand image, trust and satisfaction are first-order constructs, whereas perceived CSR is a second-order construct measured by perceptions of philanthropy, environment, consumers and workers. Perceived CSR has been represented as a second-order construct due to the existence of theoretical foundations and the correlation between the first-order factors, which indicates that these factors might converge towards a higher-order factor (Swaen & Chumpitaz, 2008).

Table 2: CFA of Constructs in the Model

	Weights	**Alpha**
Consumers' perceptions of a company's philanthropic activities		0.694
Help developing countries	0.665	
Support social and cultural activities (arts, culture, sports) in the regions where it operates	0.694	
Develop projects in poor countries*	-	
Support humanitarian cause(s)	0.608	
Consumers' perceptions of a company's environmental activities		0.754
Reduce its consumption of natural resources	0.586	
Make its production process more environmentally friendly	0.945	
Make its products as ecological as possible*	-	
Consumers' perceptions of a company's customer-related activities		0.731
Look after consumers' rights (in terms of after-sales service, guarantees, information)	0.674	
Treat customers fairly	0.782	
Provide consumers with accurate information about the products' composition	0.607	
Consumers' perceptions of a company's worker-related activities		0.784
Treat workers fairly irrespective of gender and ethnic or religious background	0.612	
Create jobs*	-	
Act in accordance with current laws and legislation*	-	
Protect employee rights	0.622	
Help all employees who so desire to receive further training*	-	
Guarantee employees' health and safety	0.715	
Respect human rights in all countries where the company operates	0.801	
Not operate in countries where human rights are violated*	-	

	Weights	Alpha
CSR (second-order construct)		0.823
Consumers' perceptions of company's philanthropic activities	0.828	
Consumers' perceptions of company's environmental activities	0.691	
Consumers' perceptions of company's customer-related activities	0.662	
Consumers' perceptions of company's worker-related activities	0.746	
Brand Image		0.820
Brand X makes me feel good*	-	
Brand X makes me feel delighted*	-	
Brand X increases my frequency of use*	-	
Brand X gives me pleasure	0.603	
Usage of Brand X prevents me from looking cheap*	-	
Brand X enhances the perceptions that I have a desirable lifestyle	0.630	
Brand X helps me to better fit into my social group	0.760	
Brand X helps me feel accepted	0.694	
Brand X improves the way I am perceived by others	0.760	
Brand X performs as it promises*	-	
Brand X can be dependable for use*	-	
Brand X makes a good impression of me on other people*	-	
Trust		0.759
This company's products give me a sense of security	0.625	
I trust the quality of this company's products	0.777	
Buying this company's products is a quality guarantee	0.741	
This company is interested in its customers*	-	
This company is forthright in its dealing with consumers*	-	
This company is honest with its customers*	-	
Satisfaction		0.842
I think that I did the right thing when I used this brand*	-	
I believe that using this brand is usually a very satisfying experience	0.775	
I am very satisfied with my decision to use this brand	0.832	
My choice to use this brand has been a wise one	0.715	
This brand does a good job of satisfying my needs	0.696	

* Items eliminated because their factorial charge was too low.
** Standardized parameters significant to the level of 5%.

A repeated process was conducted to drop items that had factor loadings of less than 0.5. As seen in the Table 2, in the final measurement model, several items with factor loadings of less than 0.5 were deleted, and all the final items were loaded highly on one construct (Hair, Anderson, Tatham & Black, 1995). The internal consistency of the constructs was tested through the Cronbach's alpha value. The survey instrument, i.e. the

Cronbach's alpha, proved to be reliable, as all the variables achieved alphas that were greater than 0.7 (Nunnally, 1978). To establish the construct validity, both convergent and discriminant validity were analysed. For convergent validity, Fornell and Larcker (1981) suggest that the Average Variance Extracted (AVE) should be more than 0.5, and the construct's reliability should be greater than 0.7. Table 3 shows that all latent variables fall true to this criteria, except for brand image, which has an AVE of 0.479. However, since the construct was reliable and all final items had factor loadings of greater than 0.5, it was decided that the variable should be retained. All latent variables in the study exhibited discriminant validity as the average of squared variance (ASV) between the constructs was less than the AVE, and the measures of each construct did not have high correlations with the other constructs (Sekaran, 2000).

The overall fit of the model was assessed by examining multiple indices that included the ratio of the chi square to degrees of freedom, the comparative fit index (CFI), the normed fit index (NFI), and root mean square error of approximation (RMSEA). Several indices were used since the model could be adequate on one index but not on others (Bollen, 1989). As suggested by Hair, Anderson, Tatham and Black (1995), and Byrne (2010), goodness of fit is achieved when the ratio of chi square to the degrees of freedom is between 2 and 5, CFI and NFI > 0.9, and RMSEA < 0.8. In the final measurement model attained, the ratio of chi square to the degrees of freedom is 1.95, NFI=0.879, CFI=0.901 and RMSEA = 0.069. Although the model does not meet the criteria of NFI, we can conclude that overall, the measurement model is deemed to be satisfactory.

Table 3: Convergent Validity, Construct Reliability & Discriminant Validity

Latent Variables	Average Variance Extracted (AVE)	Construct Reliability	Average Shared Variance (ASV)
Perceived CSR	0.539	0.823	0.257
Brand Image	0.479	0.820	0.355
Trust	0.514	0.759	0.363
Satisfaction	0.572	0.842	0.298

*Measured through Cronbach's Alpha

4.3. Structural Model Assessment – Hypothesis Testing

Table 4 presents the estimated standardized coefficients for the structural relationships between perceived CSR, brand image, trust and satisfaction. As seen from the table, all coefficients are statistically significant, except for perceived CSR and trust, and perceived CSR and satisfaction.

Table 4: Standardized Regression Weights of Structural Model

Hypothesis	Relationship	Estimate	P-value	Decision
HI	Perceived CSR → Brand Image	0.619	.000	Accept
H2	Perceived CSR → Trust	0.019	.859	Reject
H3	Perceived CSR → Satisfaction	0.167	.147	Reject
H4	Brand Image → Trust	0.398	.000	Accept
H5	Brand Image → Satisfaction	0.408	.000	Accept

The results show that the consumer's perception of CSR has a positive effect on the organization's brand image, hence supporting hypothesis 1. Hypothesis 2 predicted that the perceived CSR is related to trust, and is rejected due to its insignificance. Thus, it can be concluded that in Pakistan, the consumer's perceived CSR has no impact on the level of trust that the consumers have on a particular organization. The dependent variable, trust, has an overall R^2 of 0.58. This means that the variable of trust explains 58% of the variation in the complete model. Hypothesis 3 is also rejected due to insignificant relationship between perceived CSR and trust. Hence, the consumer's perceived CSR does not have any effect on consumer satisfaction as well. However, the brand image has a positive effect on consumer satisfaction and trust, thus giving support to hypotheses 4 and 5. Furthermore, it can be seen from Table 5 that all four constructs of perceived CSR, namely, philanthropy, environment, consumers and workers, enjoy a positive, significant relationship with it.

Table 5: Factors Determining Perceived CSR

Relationship	Estimate	p-value
Philanthropy → Perceived CSR	0.828	.000
Environment → Perceived CSR	0.691	.000
Consumers → Perceived CSR	0.662	.000
Workers → Perceived CSR	0.746	.000

Table 6 presents the results of the mediation analysis. One of the aims of the research was to examine if the brand image mediates the relationship between CSR, satisfaction and trust. The mediating effects of the brand image on satisfaction and trust, were tested by bootstrapping in Amos 18, and interpreted according to the method described in Zhao, Lynch and Chen (2010). The direct relationship between the consumers' perceived CSR, and satisfaction is statistically insignificant, however, the brand image indirectly, or completely mediates the relationship, as the indirect effect is highly significant. This means that the perceived CSR causes variation in brand image, which in turn causes the satisfaction to vary. The same holds true for perceived CSR and trust. There is no significant, direct relationship between the two variables. However, once again, brand image completely mediates the relationship between brand image and consumer's trust. Hence, hypothesis 4a and 5a are accepted, as brand image indirectly explains the variation in satisfaction, and trust, due to perceived CSR, and there is no unique, direct relationship between the variables.

Table 6: Mediation Analysis and Hypothesis Testing

	Relationship	Direct Effect	P-value	Indirect Effect	P-value	Decision
H4a	Perceived CSR → Brand Image→ Satisfaction	0.167	.147	0.253	.003	Full mediation holds
H5a	Perceived CSR → Brand Image→ Trust	0.019	.859	0.442	.001	Full mediation holds

5. Discussion and Conclusions

This study was conducted to ascertain the positive impact of the consumer's perceptions of CSR on brand image, trust and satisfaction, in the apparel industry of Pakistan. Results reveal that consumers believe that corporations have an obligation towards the society, and their perception of the level of responsibility, assumed by the companies with respect to philanthropy, environment, consumers and workers, has an impact on the ultimate consumer behaviour.

The results of this research accepted hypothesis 1, which predicted that the perceived CSR is positively related to brand image. This finding is in agreement with the work of He and Lai (2014). Becker-Olsen et al. (2005) noted that the brand image of a company suffers if it gets exposed to negative publicity on its CSR activities. Organizations can use cause-related marketing as a possible marketing strategy to formulate, and reinforce a positive brand image in the minds of consumers (Dacin & Brown, 2006). This indicates that if an organization concentrates on portraying itself as socially conscious, and communicates the same effectively to its consumers, then its brand image will enhance in the minds of the consumers. CSR initiatives can be better designed, and be more visible so that corporations can benefit from favourable consumer responses.

This study, however, rejected hypothesis 2, which predicted that the perceived CSR has a positive effect on consumer's trust in the brand. This finding is exclusively unique to this study, and does not confirm the results found by Kennedy, Ferrell and LeClair (2001), and Swaen and Chumpitaz (2008). This means that even though a corporation may be perceived as socially responsible, consumers still might not build a relationship of trust with it. This may be the result of the general mind set of the population of Pakistan, where people find it difficult to put their trust in businesses, organizations and even other people, readily and are always looking for any potential ulterior motives behind actions. This means that CSR activities by the organizations will not directly lead to an increased incidence trust in consumers, and CSR initiatives should be designed in a manner that does not focus on securing trust directly and obviously.

This study also found a positive, but insignificant relationship between perceived CSR and consumer's satisfaction. Hence, hypothesis 3 is not supported as well. This finding is also inconsistent with the findings revealed elsewhere (Luo & Bhattacharya, 2006; Martínez & del Bosque, 2013), and social marketing, by itself, might not lead to an increase in the consumer satisfaction in Pakistan. Even though CSR initiatives help consumers in other countries differentiate between organizations (Gupta & Pirsch, 2006), this is not entirely the case in Pakistan. The Pakistani consumer is probably still not aware of the significance of CSR activities, and is therefore not giving it enough importance.

Hypothesis 4, proposing that the brand image impacts satisfaction positively, was accepted. This reinforces the fact that the satisfaction level in Pakistani consumers, is a result of more than one aspect of a company's activities, and consumers look at the whole bundle offered by the organizations, of which perceived CSR has an insignificant role. Moreover, according to hypothesis 4a, the brand's image completely mediates the relationship, and the variations in consumer's satisfaction can be explained by the changes in the brand's image, rather than perceived CSR directly.

The last research hypothesis, H5, was accepted, which predicted that the brand's image is positively related to consumer's trust. This indicates that consumers in Pakistan come to trust an organization, not just on the basis of perceived CSR activities, but rather on the basis of the complete impression of a brand's total personality. This is further strengthened by the acceptance of hypothesis 5a, where the brand image, again, completely explains the variation in trust, due to perceived CSR. Thus, marketers could look at CSR as an important determinant of brand image, but should not rely only on CSR activities to gain the consumer's trust.

This study can help organizations in better understanding the consumers' mind set towards the business' efforts of perceived CSR, so that effective marketing strategies can be formulated. It is noteworthy that only the brand image is positively influenced by CSR activities, and the adoption of CSR practices does not directly translate into an increased level of satisfaction and trust. If the corporations want to enhance these directly, they will have to work strategically and rigorously to create awareness of the importance of CSR initiatives, so that these can be used as a strategic promotional tool, and become a source of competitive advantage for an organization.

This study has been based only on the perceptions of CSR initiatives in the apparel industry of Pakistan, and is further restricted to the city of Lahore. The data has also been collected only from university students. It should also be taken into consideration that for other industries and cities, the findings might or might not be similar. The research is also based on empirical information, and future studies can be made more qualitative in nature. This can be done by conducting focus groups and in-depth interviews, so as to glean a better picture of why perceived CSR does not directly impact the desired level of satisfaction and trust in Pakistan.

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Appendix

Questionnaire
SECTION A (RESPONDENTS BIODATA)

Gender

Male	Female

Educational qualification

Masters or higher	Bachelors	Professional Qualification	Other

Marital status

Single	Married

SECTION B (CORPORATE SOCIAL RESPONSIBILITY)

Please the tick the appropriate responses:

To what extent do you agree with each of the following propositions about this company? I have the impression that this company tries to... (between 1 = strongly disagree and 5 = strongly agree)

	strongly agree	**agree**	**neutral**	**disagree**	**strongly disagree**
Help developing countries					
Support social and cultural activities (arts, culture, sports) in the regions where it operates					
Develop projects in poor countries					
Support humanitarian cause(s)					
Reduce its consumption of natural resources					
Make its production process more					
Environmentally friendly					
Make its products as ecological as possible					
Look after consumers' rights (in terms of aftersales service, guarantees, information)					
Treat customers fairly					
Provide consumers with accurate information About the products' composition					
Treat workers fairly irrespective of gender And ethnic or religious background					
Create jobs					
Act in accordance with current laws and Legislation					
Protect employee rights					
Help all employees who so desire to receive Further training					
Guarantee employees' health and safety					
Respect human rights in all countries where the					
Company operates					
Not operate in countries where human rights are violated					

To what extent do you agree with each of the following statements about companies' responsibilities? Companies should... (between 1 = strongly disagree and 5 = strongly agree)

	Strongly agree	agree	neutral	disagree	Strongly disagree
Make profits					
Respect human rights					
Make their products as ecologically as possible					
Seek economic growth					
Not use environmentally harmful production Processes					
Guarantee employees' health and safety					

SECTION C (BRAND IMAGE)

For each of the following statements about the product chosen, which best reflects your opinion? (Between 1 = strongly disagree and 5 = strongly agree)

	Strongly agree	agree	neutral	disagree	Strongly disagree
Brand X makes me feel good					
Brand x makes me feel delighted					
Brand x increases my frequency of use					
Brand x gives me pleasure					
Usage of brand x prevents me from looking cheap					
Brand x enhances the perceptions that I have a desirable lifestyle					
Brand x helps me to better fit into my social Group					
brand x helps me feel accepted					
Brand x improves the way I am perceived by Others					
Brand x performs as it promises					
Brand x can be dependable for use					
Brand X makes a good impression of me on other people					

SECTION D (CONSUMER TRUST)

To what extent do you agree with the following statements about this company? (between 1 = strongly disagree and 5 = strongly agree)

	strongly agree	agree	neutral	disagree	strongly disagree
This company's products give me a sense of security					
I trust the quality of this company's products					
Buying this company's products is a quality Guarantee					
This company is interested in its customers					
This company is forthright in its dealing with consumers					
This company is honest with its customers					

SECTION E (CONSUMER SATISFACTION)

To what extent are you satisfied with this product? For each of the following statements about the product chosen, which best reflects your opinion? (Between 1 = strongly disagree and 5 = strongly agree)

	Strongly agree	agree	neutral	disagree	Strongly disagree
I think that I did the right thing when I used this brand					
I believe that using this brand is usually a very satisfying experience					
I am very satisfied with my decision to use this brand					
My choice to use this brand has been a wise One					
This brand does a good job of satisfying my needs					

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Strategic Resources and Firm Performance: An Application of the Resource Based View

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Abstract

Under the influence of the framework that defines the Resource Based View, the purpose of this paper is to examine the contribution of the strategic resources (intellectual capital) that create value for the firm. More specifically, we assess the effect of intellectual capital on operating, financial and stock market performance of the firms listed in the personal goods sector of Pakistan Stock Bourse, for the period of 2005 to 2014. The notion of intellectual capital is measured by intellectual capital efficiency, and the "value added intellectual coefficient" method proposed by Pulic (1998), which comprises of capital employed efficiency, human capital efficiency, and structural capital efficiency. The results depict that intellectual capital has a significant, positive effect on operating and financial performance of the firms, while capital employed resources have an insignificant, and mixed effect on operating and financial performance of the firms. This means that the more the firms will accumulate intellectual capital resources, the higher will be their operating and financial performance. Capital employed resources have a significant, positive effect on stock market performance of the firm, and intellectual capital also affects stock market performance, but this relationship is insignificant in nature. The accumulated effect of all the resources (physical & intellectual) shows a positive relationship with the performing areas of the firm in the sector.

Keywords: Resource based view; intellectual capital, capital employed efficiency, human capital efficiency, social capital efficiency.

JEL Classification: J24, L25, O34.

1. Introduction

The Resource Based View (RBV) is the outcome of the exertions of numerous researchers (Amit & Schoemaker, 1993; Eisenhardt & Martin, 2000; Henderson & Cockburn, 1994; Wernerfelt, 1984). Barney (1991), among others, argued that firm resources, including all assets, capabilities, organizational

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processes, firm attributes, information, knowledge, etc., generate a sustainable competitive advantage. These resources are controlled by firms that enable the firm to conceive, and implement strategies that improve its efficiency and effectiveness (Daft, 2012). These capabilities are bundled into tangible and intangible assets, and a sustainable competitive advantage can be generated by valuable, rare, imperfectly inimitable and non-substitutable resources (Barney, 1991). It is assumed by the Resource Based View that the available stocks of resources, whether in the ownership or control of the firm, and the potentiality of the firm to deploy these resources, are heterogeneously dispersed and improperly moveable (Amit & Schoemaker, 1993).

The Resource Based View states that the strategic resources are bound to enjoy returns that are greater than the average, preserving the sustainable competitive advantage to the firms having these resources (Peteraf, 1993; Wernerfelt, 1984). The explicit type, size and nature of these strategic resources define the profitability of a firm (Amit & Schoemaker, 1993). To assimilate, synchronize, and activate those resources and capabilities effectively, a firm needs to possess tacit knowledge that is rooted in the firm's internal procedures (Grant, 1991). Specific knowledge of the firm is reflected as a significant strategic strength that would be positively linked with greater levels of performance, (Bierly & Chakrabarti, 1996; Nonaka & Takeuchi, 1995; Teece, 1998). From this perspective, a new concept of strategic importance in the context of strategic management, i.e. The Knowledge-Based View of a firm, is initiated.

Referring to the studies conducted by Leonard and Sensiper (1998), knowledge is the information which is related, executable and based, at least somewhat, on experience. Due to the inclusion of circumstantial material, mounted experience, values, and expert understandings (Davenport & Prusak, 1998), knowledge decreases ambiguity (Uit Beijerse, 1999). Polanyi (1966) and, Nonaka and Konno (1998) deduced that knowledge is the most influential and powerful capability of a firm. A new, knowledge-based economy was a phenomenon that was attributed by Stewart (1997) and Zeghal (2000), in terms of an investment in employees, research activities, building customer relationships and administrative system. In the context of the knowledge based view, intellectual capital was referred to as the resources that were associated with knowledge, and were supposed to be the key drivers for superior firm performance (Sardo & Serrasqueiro, 2017; Curado, Henriques & Bontis, 2011; Díaz-Fernández, González-Rodríguez & Simonetti, 2015; Subramaniam & Youndt, 2005; Teece, 2000). The importance of Intellectual Capital (henceforth IC), for value creation, was also extended by Sveiby (1997) and Lynn (1998).

Kenneth Galbraith presented the concept of IC for the first time in 1969 (Bontis, 1998) however, there is still a need to establish a generally accepted definition, or categorization of IC (Bhartesh & Bandyopadhyay, 2005; Canibano, 2000; OECD, 2006). Considering its significance, the constituents of IC were defined, and categorized in the late 1990s. Stewart (1997) defined IC as "packaged useful knowledge", whereas, Edvinsson (1997) expanded the definition of IC to "knowledge that can be converted into value". Succeeding these authors, Zéghal and Maaloul (2010) describe IC as being the "totality of entire knowledge a firm is capable to use, in the course of steering business to create value – a Value Addition for the firm". Sheikh, Sheikh and Sheikh (2004), Sheikh and Sheikh (2004) took IC as a "knowledge that can be transformed into value or intellectual matters, like intellectual property". Value generated on the bases of knowledge refers to the extent of observation that a probable customer possesses. The research work led by Edvinsson (1997) and Stewart (1997) was aimed towards a standardized categorization of the constituents of IC. Conferring to their ideas of classification, IC is classified into human capital (henceforth HC), and structural capital (henceforth SC). The first category of IC, i.e. HC, refers to knowledge and expertise in the form of the qualifications and abilities of firm personnel. This knowledge moves with the employees, wherever they go and perform their duties; and whatever is leftover in the form of knowledge, after employees moves out of the firm, is referred to as the second constituent of IC, i.e. SC. This is primarily associated with business intelligence, data bases, transformational methods, models and various forms of techniques used for interaction between a firm and its stakeholders. As per the ideas presented by Ashton (2005), the mentioned classification is the one which is often referred to, and used in the literature. Empirical theories state that a firm can enjoy a competitive advantage, if it holds efficient strategic resources. Initially, the capital employed (physical and financial), was only considered to fall in the category of strategic resources. However, over a period of time, when the Resource Based Theory came under discussion with the scholars, HC and SC, under the umbrella of IC, were also regarded as strategic resources, and necessary for obtaining the competitive advantage. (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984)

Based upon the above literature, components of strategic resources under the Resource Based View are categorized into three categories: physical capital resources, human capital resources and organizational capital resources (Barney, 1991; Becker, 1964; Tomer, 1987; Williamson, 1975) whereas, as per the IC based view, strategic resources only include human capital resources and structure capital resources (Reed, Lubatkin &

Srinivasan, 2006; Riahi-Belkaoui, 2003). Therefore, the IC based constituents are in accordance and consistent with the Resource Based View. Pulic (1998, 2000, 2004) alongside other associates at the Austrian IC Research Center, augmented the significance of the IC, by building a technique to quantify firms' IC, which is now generally called the "Value Added Intellectual Coefficient" (VAIC) (Ozkan, Cakan, & Kayacan, 2017). The scheme was further advanced by Bornemann, Knapp, Schneider and Sixl (1999). The productivity and effeciency of the value addition in firms' total resources is effectively monitored and evaluated by this technique (Bornemann et al., 1999; Pulic, 1998). This method is regarded as a robust approach to calculate the contribution of each of the strategic resources – physical, financial, human, and structural – which add value to the firm. This method assumes that a firm is not a constant system, rather a dynamic and ever varying system, where employees are considered a prime resource for creating value for the firm.

Firms equipped with knowledge intensive resources are more competitive, as compared to those which do not have access to such resources. The global scenario of production is thriving on heavy competition, and is rapidly changing due to the achievements in terms of the technological advancements, and new competitive concepts that are a result of intensive research and development. Firms in the developed nations have consistently focused on knowledge based production, while this phenomenon is comparatively less followed, and studied in developing countries. Although developing economies usually do not focus aggressively on establishing knowledge intensive resources, they are now, somewhat seeking to acquire strategic resources through knowledge, perhaps because of the global, competitive pressure. The scientific studies focusing on the knowledge-performance relationship in the developing world context can add value to the policy debates in these countries. This study investigates this very relationship for an important developing country; Pakistan. To achieve sustainable growth, Pakistan is bestowed with all the required strategic resources (natural and man-made), with respect to the manufacturing, trading and servicing industries. Out of the thirty five listed sectors, the largest contributory sector, and exporter in the national exchequer of Pakistan is the textile sector. Despite its contribution with respect to the production of cotton, and the products associated with it, the number of firms, employment, and potential growth, this sector is ignored by the government and policy makers, when it comes to recognizing the role of knowledge in its performance. The core objective of this study is to bridge this gap, by analyzing the productivity of intellectual capital resources, in adding value to the performance of the firms, (operating, financial and stock market performance) in the textile sector of Pakistan.

The remaining layout of the paper is as follows. Section 2 provides the literature review, and the hypotheses construction. Section 3 discusses the measurement of variables used in this study. Data sets and the descriptive statistics are reported in section 4. Section 5 discusses the regression results, and section 6 concludes the paper.

2. Literature Review

The Resource Based View is at the heart of the research studies discussing the associations between firm resources and achievement of competitive advantage (Alexy, West, Klapper & Reitzig, 2018; Newbert, 2008). Carter and Toms (2010) argue that resource based view is a complete and consistent theory of firm behavior. Carter and Toms (2010) empirically studies the associations between value, rareness, competitive advantage, and performance by taking a sample of 664, micro and nanotechnology firms from 2003 to 2004. The results suggest that value and rareness are significantly linked to competitive advantage, and this competitive advantage, in turn, is related to the performance of the firm.

The empirical works show that human capital accumulations, and investments, can considerably affect organizational performance (Hitt, Biermant, Shimizu & Kochhar, 2001). But the literature available, provides fewer theoretical and experimental direction showing how human capital losses (resource depletion) can adversely impact the organizational performance. The Resource Based View scientists stress upon the building of human capital in order to reap competitive advantages, but they overlook the dangers associated with the efforts of resource accumulation (Shaw, Park & Kim, 2013). Analyzing the Resource-based standpoint on the interactions between human capital losses, investments and workforce productivity, Shaw et al. (2013) discover that when investments in employees are high, the adverse effect of human capital losses on firm's productivity is relatively weak. The relationship is insignificant when the investment in human resources are low, human capital losses.

Kamboj, Goyal, and Rahman (2015), taking the response from Indian managers, belonging to various sectorial firms, assert in their empirical studies, that marketing and operational capabilities of a firm have a significantly affirmative impact on its financial performance. Moreover, investigating the mediating role of competitive advantage and supply chain management on the above mentioned relation, they find a significant and positive mediating role. Measuring the mediating role of intangible capabilities between corporate responsibility, and financial performance on 599 firms, from 28 countries, Surroca, Tribó and Waddock (2010) strengthen the Resource Based View framework, by elaborating that socially responsible firms are more capable and profitable, as compared to the ones that are irresponsible in this aspect. In the context of non-profit organizations, Bontis, Bart and Kong (2007) analyze the suitability of the Resource-Based View, industrial organization, balanced scorecard, knowledge-based view and intellectual capital, on the non-profit sector, and conclude that IC is more operational as compared to other strategic management notions especially when it comes to achieving sustained strategic advantages.

Empirical work mostly illustrates that IC significantly increases the value addition (hereafter VA) created by a firm, and hence is significantly related to its performance (Pucci, Simoni & Zanni, 2015). The investigation of Pulic (1998) on Austrian organizations reports a high connection between VA and IC, while it is low between VA, and capital utilized (physical and financial assets). This relation advocates the concept, in a new, knowledge-based economy, that IC is an important cause of value creation for the firms. Stewart (2002) concludes that the capacity of the resources in a firm determines the direction of its performance, when it comes to generating VA. In a study conducted by Riahi-Belkaoui (2003) on IC as a vital asset to deliver VA for the US worldwide firms, a significant connection between IC, and prospect execution is featured. The outcome of the study of Chen, Zhu and Yuan Xie (2004) specifies that firms with more emphasized IC, are more competitive as compared to other firms, and also more lucrative in the sight of investors. After using statistics from 150 publicly operated firms in Singapore, the work of Tan, Plowman and Hancock (2007) endorsed the previously mentioned relationship between IC, and firm performance, although the input of IC, in firm performance, varies from industry to industry. Conversely, the work of Firer and Williams (2003), on 75 publicly operated firms in South Africa reveal that IC is adversely linked with the customary tools of analysis which pertain to performance, while the relationship between capital employed (physical and financial), and the measures of performance, is affirmative. The effect of IC is found to be positive and insignificant for firm performance, according to the past data, while it is found to be significant for the more recent years' performance (Hasan & Miah, 2018). Conducting the study on Gulf cooperation council countries' firms, findings support the effect of intellectual capital on accounting based performance, while negating the relationship with market based performance (Hamdan, 2018). Hsu and Wang (2012) have found the effect of dynamic capability on the components of IC, and display its partial effect on enhancing firm performance by analyzing pooled data of 242, high tech firms, from 2001 to 2008.

2.1 Operating Performance Model

Many researchers have advocated that the operating performance of a firm can be maximized by investing in IC (Bounfour, Bismuth & Tojo, 2008; Nimtrakoon, 2015; Ramond & Casta, 2007; Sydler, Haefliger & Pruksa, 2014; Z. Wang, Wang & Liang, 2014). Financial surplus, or monetary edge, which is basically the difference between revenue and generation costs, is called operating profitability.

Kamukama, Ahiauzu, and Ntayi (2011) stressed upon the competitive benefits of scholarly capital (i.e., IC), when it comes to the financial execution in Uganda's microfinance foundations. Similarly, Ling (2013), taking a valid questionnaire from a sample of 146 Taiwanese firms, established a positive relationship between IC, and business performance; similar results were found by Hejazi, Ghanbari and Alipour (2016). Cheng, Lin, Hsiao, and Lin (2010), analyzed the six-value creating interactions between the four constituents of intellectual capital, and suggested that there exists a significant relationship between intellectual capital and firm performance. Zéghal and Maaloul (2010), carried out their investigation, which pertained to the role of VA as an indicator of IC, and its effect on firm performance, by focusing on 300 UK, high tech, traditional and service based concerns. They concluded that IC has affirmative positive effect on the various indicators of firm performance.

Nakamura (2001) argues that if organizations spend in IC, the achievement of these firms will permit them to diminish their manufacturing costs. Production costs can decrease largely due to skillful human capital, and an efficient method of R&D. Moreover, while assessing the impact of IC, from Gu and Lev's (2011) work, it was revealed that there was another technique that was developed, and later on proposed, on the financial idea of "production function". This approach mirrored that there are three sorts of assets: physical, financial and scholarly, which lead to the creation of an organization's operating execution. The DTI (2006) study explains that the value invested in physical, financial and intellectual resources, in a value making framework, and the capability of these resources to produce VA, determine the company's operating performance.

In their model of IC valuation, Gu and Lev (2011) propose that the physical, financial and intellectual resources produce value for the effective operating performance of a firm. Their idea was based on a new methodology which revolved around the economic notion of the "production function". Mickey and Goo (2005), by employing the IC view, Resource Based View, and the financial perspective, via questionnaires and secondary data, observe that IC, and corporate performance have a positive relationship. Based upon the above literature, the following hypothesis is proposed to be tested:

Hypothesis 1: Intellectual capital has a positive effect on operating performance.

2.2 Financial Performance Model

Profitability, which is a statement of the limit of enriched venture, in order to influence a positive level of profit, can be named as the finance related execution. Numerous creators infer that IC affects an organization's financial execution (Hejazi et al., 2016; Ozkan et al., 2017; Sydler et al., 2014; Wang et al., 2014). Considering the asset based hypothesis, Chen et al. (2004) prescribe that, IC increases the value of financial performance of a firm. This hypothesis is additionally pooled by Youndt, Subramaniam and Snell (2004), who demonstrate that IC concentrated firms are more focused as compared to other firms, and are, subsequently, more prosperous as well.

Muhammad and Ismail (2009), making use of the data for eighteen companies of the financial sector of Malaysia, signify the positive relationship between knowledge based resources, and firm performance, and, hence, make a calculated revelation that the banking sector invests more in IC, as compared to other firms or sectors. Murale, Jayaraj and Ashrafali (2010), by analyzing Indian firms, postulate that human capital (main component of IC) has the most significant influence on a firm's value creation activities, and stock market performance. By the value-creation of human capital, firms can effectively increase their performance. Cheng et al. (2010) advocate a significant, positive relationship between the various constituents of intellectual capital, and a firm's financial performance. Tan et al. (2007) validated the same results, based on 150 publicly traded companies in Singapore. Zéghal and Maaloul (2010) comprehensively measured and asserted upon the affirmative contribution of traditional factors of IC, in creating value with respect to the financial area of performance, among UK high tech, traditional and service based concerns.

However, Riahi-Belkaoui (2003) and, Firer and Williams (2003) predict that the financial performance is determined by strategic resources, and a sustained competitive advantage is achieved by using intellectual, physical, and financial capital as well. Sydler Sydler et al. (2014), used monetary proxies for human, structural and relational capital, and longitudinal data, for 69 publicly-traded pharmaceutical, and bio-tech companies, and also augmented the idea that IC does not create expenses, rather IC creates assets which offer improved returns. Based upon the above discussion, the following hypothesis is proposed to be tested:

Hypothesis 2: Intellectual capital has a positive effect on financial performance.

2.3 Stock Market Performance Model

A few researchers depict that the failure to consider IC in financial proclamations is a gaping hole between an organization's market and book esteem (Lev, 2001; Skinner, 2008). The market-to-book ratio is a representation of this gap. This growing gap also signifies that IC, as a gauge of worth of a firm, needs to be recognized by the potential investors. In this situation, as proposed by Firer and Williams (2003) and Bontis, Wu, Chen, Cheng and Hwang (2005), firms with greater investment in IC are placed at a higher value by the investors, especially if the marketplace is efficient. This supposition is additionally shared by Youndt et al. (2004) and Skinner (2008), who express that the financial specialists in securities exchange give more significance to IC related firms, as compared to the others. However, Zeghal (2000) and DTI (2006) consider that in a highly creative environment, venture capitalists are not restricted to the financial expertise only, but consider take into consideration the intellectual capital as well. In other words, the organizations with reputation of persistently creating VA through IC are chosen for the portfolios.

In a study based on 4,254 Taiwanese listed companies during the period 1992-2002, Chen, Cheng and Hwang (2005) found that IC, and the capital employed have a positive impact on the market value, as well as on the current and future financial performance. Murale et al. (2010) studied Indian firms, and concluded that the stock return can be created by investing in human capital (one of the main components of IC). Cheng et al. (2010) analyzed a positive effect of the elements of intellectual capital, on market performance of a firm. Zéghal and Maaloul (2010) analyzed the relationship between IC, and stock market productivity, and revealed a positive input of conventional factors of IC in the UK's high tech firms' operating, financial and stock performance. Sydler et al. (2014) studied the longitudinal data for publicly-traded pharmaceutical and bio-tech companies, and summarized that the financial and market profitability can be shaped by focusing on human, structural and relational capital. These are permanent economic resources for the firm to attain sustainable growth. Based upon the above literature, the following hypothesis is proposed to be tested:

Hypothesis 3: Intellectual capital has a positive effect on stock market performance.

3. Variables

3.1 Dependent Variables

The operating, financial and stock market performance are used as dependent variables, and proxied by the operating income to sales (OIS), return on assets (ROA) and the market to book value of net assets (MB), respectively. OIS is the ratio of the income generated, through the operation to total returns (Lev, 2004; Zéghal & Maaloul, 2010). ROA is the proportion of the net pay that is accessible to regular investors (i.e., income after premium and expenses) in order to book the estimation of total resources (Bontis et al., 2005; Ozkan et al., 2017). MB is the proportion of the aggregate market capitalization (i.e., market value per share into outstanding shares) in order to book the estimation of net resources (i.e., total resources less aggregate liabilities) (Firer & Williams, 2003; Sougiannis, 1994; Zéghal & Maaloul, 2010).

3.2 Independent Variables

Intellectual capital is going to be taken as the independent variable for the purpose of this study. This variable is measured by using two proxies: Intellectual Capital Efficiency (ICE), and Value Added Intellectual Coefficient (VAIC). The former is used to check the accumulated contribution of primary components of IC (HC and SC) in VA, and the latter is used to measure every single resource that aids to crop VA. The coefficients of VAIC are the efficiencies of all the resources, and their VA ability.

As defined by Firer and Williams (2003), the following steps are laid down in order to facilitate the measurement of VAIC and its components:

- According to DTI (2006) and Riahi-Belkaoui (2003), the VA is determined as follows:

$$VA = OUTPUT - INPUT$$

Output signifies the total incomes, and incorporates the estimation of all the items and administrations that are sold in the market; inputs consist of all the expenses incurred for operating a firm, excluding the employees' costs, which are not observed as costs.

- Capital Employed Efficiency (CEE) measures the contribution of capital employed (physical and financial) in VA. As argued by Pulic (2004) and others, IC itself cannot produce value. So, it is crucial to consider the physical and financial capital in order to gather a complete understanding of the sum of VA that is produced by a firm's resources. This coefficient reveals how much new yield has been made by one unit of asset contributions, to capital utilized. This efficiency can be measured as follows:

$$CEE = \frac{VA}{CE}$$

- Human Capital Efficiency (HCE) measures the influence of human capital in VA. Human Capital resources contain knowledge, qualification, training, experience, and intuition of the employees of a firm. According to the strategic compensation concept, employees are compensated on the basis of every contribution they make towards the growth of the business. At the time of hiring, they are compensated with a periodic salary which is based upon their qualification and experience, and later on, they are also compensated with monetary benefits on every contribution they make in the form of skill enhancement through training, and bringing or pitching in new ideas through research work. Firms take care of their employees, not only while they are working, but also after they retire, in the form of retirement benefits. All these investments in the employees are mentioned in the annual financial reports of the firms, in the form of either employee cost, or salary and other benefits. Many scholars (e.g., Pulic, 2004; Lajili & Zeghal, 2006; Wyatt & Frick, 2010, etc.) regard employee cost as the best indicator to measure human capital. Hence, this paper also follows this tradition. The HCE is measured as follows:

$$HCE = \frac{VA}{HC}$$

- Structural Capital Efficiency (SCE) measures the involvement of structural capital in VA. According to Pulic (2004) and several other scholars, subtracting HC from VA obtains SC. SC is not a self-reliant capital, and the efficiency is calculated as:

$$SCE^{1} = \frac{SC}{VA}$$

- Intellectual Capital Efficiency (ICE) is to check the contribution of primary components of IC (HC and SC) in VA, by using the following mathematical expression:

$$ICE = HCE + SCE$$

- Value Added Intellectual Coefficient (VAIC) is to quantify every single resource that aids in cropping VA, and is measured with the following formula:

$$VAIC = ICE + CEE$$

3.3 *Control Variables*

To enrich our analysis, we use size (SIZE), age (AGE) and financial leverage (FL) of the firm as the control variables. The size of the firm affects all types of firms (high-tech, traditional and services) (Dženopoljac, Janoševic & Bontis, 2016**),** and all types of performances (operating, financial and stock market), with industry-specific differences intact (Zéghal & Maaloul, 2010). We measure the size of the firm as the log of book estimation of the aggregate resources (Riahi-Belkaoui, 2003). The older the firm, the more mature it is in its performance and hence, tends to perform better. We use age as a control variable, in order to represent this impact. The age of the firm is measured as the difference between the year of the information gathering, and year of the initiation of the business (Autio, Sapienza & Almeida, 2000). Financial leverage denotes the overall liability reported to the firm, which reflects its capacity to attract external financial resources (Bhardwaj, 2018; Goel, Chadha & Sharma, 2015; Lestari & Riyadi, 2018; Malshe & Agarwal, 2015; Sodeyfi, 2016).

It can be observed that our investigation centers around the impact of the intellectual capital (ICE and VAIC) on firm execution. More specifically, in order to analyze the performance effect of intellectual capital of the firms, regression models (given in subsequent section) are constituted in two ways: (1) Taking ICE as an independent variable, and

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[1] Note that HCE and SCE are not calculated in the same way. To calculate both in the same way, the underlying assumption is that by increasing one efficiency, another will be decreased, which is illogical. The logical argument is to perceive that both efficiencies increase in order to increase the contribution of IC in VA.

CEE, size, age and financial leverage as the control variables; (2) Taking VAIC as an independent variable, and size, age and financial leverage as the control variables. CEE is dropped as a control variable, when VAIC is used as an independent variable, only to avoid redundancy, because it is the component of VAIC.

4. Data and Descriptive Statistics

The data used in this study consists of all the firms listed in the personal goods sector on the Pakistan Stock Exchange (PSX), Pakistan, and also takes into consideration ten years of accounting data, specifically for the years between and including 2005 to 2014. The accounting data is extracted from the audited annual reports of the firms, which are downloaded from the official websites of the respective firms that are included in this study. Data for the stock market performance is obtained from the data portal of the Pakistan Stock Exchange. The personal goods sector is chosen by keeping in view the contribution of this sector in Pakistan's economy. The original data is screened by the following criteria. We have not incorporated the firms with a negative book value of equity, and negative HC or SC values, as suggested by Firer and Williams (2003) and Shiu (2006). The firms for which the information is missing (inaccessibility of yearly reports because of mergers, repurchase, suspension, delisting) are also not included in the study. PSX enlisted 33 sectors, comprising of 557 firms. The personal goods is a representation of all the textile units, and the largest sector with respect to the number of firms. There are 179 firms that are accumulated in the personal goods sector of PSX. After screening the firms, we have been left with 99 firms, with a totaling of 990 observations.

Table 1: Descriptive Statistics

Variables	N	Mean	S.D.
OIS	968	0.0409	0.4403
ROA	976	0.0328	0.1968
MB	977	0.8201	3.5401
CEE	915	0.8054	5.5592
HCE	917	2.334	6.2363
SCE	919	0.2255	5.1812
ICE	917	2.5582	8.2109
VAIC	94	3.3661	9.9624
AGE	989	30.4105	14.7821
SIZE	977	7.6299	1.1926
FL	977	0.7442	0.2932

The summary statistics of all the variables used in the study are reported in Table 1. Recall that OIS calculates the operating profitability of a firm, and hence, the mean of the said ratio is 0.041, which means that the firms considered in the study do not enjoy good profitability during the period of consideration of the data. It can also be observed that the trend of the profit over the period might be very volatile as the standard deviation is much higher than the mean value. Although the mean value of ROA (i.e., 0.032877) is low, it indicates that the firms in the sector are generating positive returns when it comes to utilizing all types of resources. How speculators do contrast market esteem per share, with book esteem per share, is specified as MB. The mean estimation of MB shows that the market estimation of the value is in abundance of the book estimation of the value of test firms, and investors give more weightage to the firms in the sample for investment purposes, and they are willingly paying 1.155 times more for the market price of shares, as compared to the book value of the shares. The CEE average indicates that the firms in the sample are generating a 0.81 value, by investing one dollar in their physical and financial resources. HCE is contributing more to the firms than the cost of human capital is absorbing. By comparing the contribution of ICE and CEE, it is observed that the intellectual capital resources are adding more value to the sample firms than the capital employed in physical and financial resources.

5. Regression Analysis

To address our research objectives, the following equations relating to the operating, financial and stock market performance are modeled:

$$OIS=b_{0o}+b_{1o}ICE+b_{2o}CEE+b_{3o}AGE+b_{4o}SIZE+b_{5o}FL+\mu\ldots \quad \text{Model 1)}$$

$$ROA=b_{0r}+b_{1r}ICE+b_{2r}CEE+b_{3r}AGE+b_{4r}SIZE+b_{5r}FL+\mu\ldots \quad \text{Model 2)}$$

$$MB=b_{0m}+b_{1m}ICE+b_{2m}CEE+b_{3m}AGE+b_{4m}SIZE+b_{5m}FL+\mu\ldots \quad \text{Model 3)}$$

$$OIS=c_{0o}+c_{1o}VAIC+c_{2o}AGE+c_{3o}SIZE+c_{4o}FL+\mu\ldots \quad \ldots\ldots\ldots\text{(Model 4)}$$

$$ROA=c_{0r}+c_{1r}VAIC+c_{2r}AGE+c_{3r}SIZE+c_{4r}FL+\mu\ldots\ldots\ldots \quad \ldots.\ \text{(Model 5)}$$

$$MB=c_{0M}+c_{1m}VAIC+c_{2m}AGE+c_{3m}SIZE+c_{4m}FL+\mu\ldots\ldots\ldots\ldots \quad .\ \text{(Model 6)}$$

Since we have panel data, we avoid using the straightforward ordinary least square (OLS) method for the regression analysis. To get more accurate results, we choose between the fixed-effect and random-effect models, after applying the Hausman test (The results of the Hausman test are reported in appendix in Tables A1-A6). The Hausman test preferred the fixed effect model for all types of models used in this study.

In the multiple regression analysis, it is desirable that the predictors should not be collinear. Therefore, before performing the analysis, we investigate the possibility of multicollinearity. In this regard, the Variance Inflation Factor (VIF), and Tolerance are used to check the existence of multicollinearity. The values of VIF and Tolerance, for all regression models, are reported in Table A7. We do not find the issue of multicollinearity in all our regressions.

Furthermore, we must recall that two proxies (ICE and VAIC) were used to measure the intellectual capital. **Table 2** reports the results when ICE is used as independent variable. Throughout the table, CEE, AGE, SIZE and FL are used as controls.

5.1 Results for Operating Performance (Model 1)

The results of the effect of ICE on operating performance (OIS) are reported in column 1 of **Table 2**. The significance of the F statistics reveal that the model as a whole is a good one in nature. The regression coefficient depicts that the ICE has a critical, beneficial outcome on the working performance, which supports the previously mentioned H_1. This result is consistent with the results of various scholars such as Chen et al. (2004), Riahi-Belkaoui (2003), Tan et al. (2007), Muhammad and Ismail (2009), Zéghal and Maaloul (2010), Casta, Ramond and Escaffre (2006) and, Wang, Wang, Cao and Ye (2016). The Control variables (CEE, AGE, SIZE and FL) have a mixed influence on the operating performance of the firms. CEE and age (Autio et al., 2000) and FL leave slightly negative effects on the operating performance of the firm in the personal goods sector, with an insignificant effect of CEE and FL, and a significant effect of age (consistent with Casta et al. (2006) and, Zéghal and Maaloul (2010)). Firm size has a significant and positive effect on the performance, as shown by Riahi-Belkaoui (2003), among others.

Pakistan is one of the developing nations of the world. These nations typically do not possess enough strategic resources to be able to enjoy a sustainable competitive advantage. In spite of this, they are paving their way towards success. Although, the personal goods sector of Pakistan is viewed as a capital intensive one, the impact of scholarly capital, on working execution, is critical and positive for this part. The likely interpretation here is that they have understood that the world economies have shifted their focus on knowledge based production, rather than merely centering their efforts on quantity. That is why they are now investing in knowledge intensive resources. The significant, positive relationship between ICE and OIS might indicate that the said sector has acquired and invested in knowledge concentrated resources, and hence, has been enjoying good profitability. CEE and OIS of the firms in the said sector have a negative, though insignificant relationship. This negative coefficient is somewhat surprising, since the physical resources of the firm in the personal goods sector, because of the very nature of this sector, are very important factors of performance. However, the negative coefficient of CEE does not have a significant importance, since the relationship is statistically insignificant.

Table 2: Regression Results: ICE as Independent Variable

Independent Variables	Operating Performance (Model 1)	Financial Performance (Model 2)	Stock Market Performance (Model 3)
ICE	0.006252**	0.014314**	0.000031
	(0.001338)	(0.000588)	(0.010658)
CEE	-0.000636	0.000568	0.427067**
	(0.001372)	(0.000875)	(0.015865)
AGE	-0.017908**	0.016700**	-0.077870*
	(0.003330)	(0.001986)	(0.035999)
SIZE	0.130071**	-0.146019**	0.0639491
	(0.025808)	(0.014963)	(0.271232)
FL	-0.027577	-0.176015*	-4.859041**
	(0.044626)	(0.027931)	(0.506304)
F Statistics	11.47**	180.76**	166.35**
No. of obs.	904	914	914

Standard Errors are shown in parentheses;
* and ** represent significant at 1% and 5% respectively

5.2 Results for Financial Performance (Model 2)

Column 2 of **Table 2** reports the results when the financial performance (ROA) is taken as a dependent variable. Again, the significance of the F statistics validates the model. The results show that ICE has a constructive and important impact on the financial execution of the firms in the personal goods sector, which supports the claim made in H_2. This outcome is consistent with studies such as, Firer and Williams (2003), Zéghal and Maaloul (2010), Riahi-Belkaoui (2003), Z. Wang et al.

(2014), Nimtrakoon (2015), Ozkan et al. (2017) and Tan et al. (2007), that report a constructive outcome of intellectual capital on firm execution. The influence of firm age, and CEE, on ROA is positive, significant and insignificant respectively. Whereas, the financial performance is negatively associated with the firm size and financial leverage of the firms, and the relationship is statistically significant at a 1% level. The ROA of the firm constitutes of the earning power of the total resources owned, or used by the firm. The significant relationship between ICE and ROA reveals that the personal goods sector of Pakistan gives importance to intellectual resources in order to yield optimal ROA. As the ICE comprises of HCE and SCE, the financial performance of the firms in the personal goods sector can further be enhanced by focusing on employees and the structural resources of the firms in this sector. The importance of human capital in this sector is established by the fact that it employs more than 20% of the total Pakistani labor force. In addition to using cotton bales in production, the personal goods sector has advanced its operations by instilling technological progression in the availability of raw material, by introducing man-made fibers to be used for blended fabrics, such as bed sheets. This shoes a glimpse of the importance of SCE. The significant, positive effect of ICE, and the importance of HCE and SCE suggest that the firms in this sector should focus more on the development of these factors, solely for the purpose of performing better for better performance.

5.3 Results for Stock Market Performance (Model 3)

The Operating performance and the financial performance (ROA) are the internal performance criterion, whereas stock market performance is considered to be a measure of external performance. Column 3 of **Table 2** depicts the results with stock market performance as a dependent variable. The value of the F statistics appears to be statistically significant at a level of 1%. The coefficient of the independent variable shows that there is a positive, but insignificant relationship between ICE, and the stock market performance of the firms. This means that the result does not support H_3. This finding corroborates the study of Zéghal and Maaloul (2010). CEE and SIZE have positive effects on the performance, whereas, age and financial leverage is negatively affecting the performance. The impact of CEE, AGE and FL on MB appear to be significant. The results of CEE are in accordance with the works of Shiu (2006), Bontis et al. (2005) and Firer and Williams (2003).

The above-mentioned relationships show how investors in the stock market of Pakistan visualize the strategic resources to be important assets for a firm. The results indicate that the investors give significant importance to the physical and financial resources (CEE), than to the intellectual resources. Maturity of the firm adds value, albeit negatively, to its stock market performance, even if this relationship is not statistically significant. Such firms are more willing to pay for those firms which are heavily equipped with capital employed resources, in lieu of the knowledge-related resources. The information is available easily, and quickly, for all the actual, and potential investors. Most of the investors trade shares on speculations. News about the Pakistani and international markets play a very vital role when stockbrokers are recommending a share for trading. There are very few investors who trade shares on the basis of fundamental and technical analysis, and this phenomenon might lead them to invest in those firms whose capital employed is more substantial than their intellectual capital.

Summarizing the regression results in **Table 2**, the ICE significantly, and positively effects the operating and financial areas of the firms, while the CEE has an insignificantly mixed influence on operating and financial zones of the firms. This means that the more these firms will accumulate intellectual capital resources, the higher will be their operating and financial performance. This study validates the importance of intellectual capital resources with respect to firm performance, and also agrees with various scholarly works like Barua and Whinston (1998), Tanriverdi and Venkatraman (2005), Zeglat and Zigan (2013), Bontis et al. (2005), Hitt et al. (2001), Wang, Tsui, Zhang and Ma (2003), Grant (1997). CEE has a significantly affirmative influence on stock market performance of the firm, while the ICE also positively affects the market performance, but the relationship is statistically insignificant. The addition of knowledge based resources (whether in the form of human or structure) in the operating processes of firms in the ginning process, where raw cotton is converted into fine cotton, in the spinning process, where purified cotton is converted into yarn, and in the clothing process, where yarn is converted into cloth and garments, enhances the operating and financial capability of the firms in the personal goods sector of Pakistan. The textile products of Pakistan are famous all over the world due to their cotton and yarn quality. If further research and development, technological advancement and employee training and development are added in the operating processes, the personal goods sector of Pakistan would achieve more success and competitive advantage. The relationship between ICE and stock market performance of the listed companies in the personal goods sector of Pakistan is positive, but statistically insignificant, meaning that the investors in the stock market of Pakistan do not appreciate investments in ICE intensive firms as compared to making investments in CEE intensive firms.

So far, we have discussed the impact of intellectual capital on different performing zones, measured by using ICE as a proxy for intellectual capital. Another important measure of intellectual capital, which is obtained by adding ICE with CEE, is VAIC. The subsequent analysis will observe the effect of VAIC on different firm performance measures. Throughout the **Table 3**, the analysis on the significance of model as a whole shows that the model is a good model.

5.4 Results for Operating Performance (Model 4)

Column 1 of **Table 3** describes the outcomes of the analysis on the OIS-VAIC relationship. The F-statistic reveals that the model as a whole is a valid one. Recall that the apparatuses of VAIC are physical capital, financial capital and intellectual capital resources. Keeping this in mind, the VAIC has a significant, positive effect on the operating performance of the firms, hence supporting the hypothesis H_1. The results depict that the higher the VAIC, the higher will be the operating performance of the firms. Age and FL of firms are affecting the firm performance negatively, with a significant and insignificant relationship, respectively. The Size of the firms has a significant positive influence. Results are statistically significant at a 1% level. The positive effect of VAIC infers that the personal goods sector of Pakistan should focus on the increment of accumulation of the strategic resources. Theoretically, it seems that increasing of age adds maturity in the performance of the firms, but the results reveal a different outcome. This may be due to some other factors of the economy of Pakistan, which affect the operating outcome negatively. The likely explanation of the significant effect of the six models is that the personal goods sector of Pakistan is capital intensive, which requires large capital goods to be installed for a positive working efficiency. The larger the firm is, the better is its operating performance.

5.5 Results for Financial Performance (Model 5)

Column 2 of **Table 3** reports the results of the impact of VAIC on money related performance. Again, the F-statistics appear to be significant. The VAIC affects the financial profitability of the firms in a positive manner, and the relationship is highly significant, which means that our second hypothesis, H_2, is being supported. Contrary to model 4, the age of firms has a significant, positive effect and the size of the firm has a significant, negative effect on the financial performance of a firm. The relationship between FL and ROA appears to be significant and negative.

The personal goods sector of Pakistan possesses physical properties, human capitals and structural possessions, which constitute of VAIC. According to the results, on the basis of these resources, value is being added in the financial performance of the firms. The maturity also adds value in the monetary performance of the firms. The VAIC, and age increment the earning energy of the organizations, as demonstrated in the table, whereas the acquisition of more resources (SIZE), and FL over the period created negative value for the firms in the area pertaining to the financial performance of the firms. This may be due to the internal problems, especially the shortage of utilities, and raw material at economical price, which are being faced since the last decade.

5.6 Results for Stock Market Performance (Model 6)

The Stock exchange performance of the organizations is computed on the basis of fluctuations in the market capitalization of the stocks. The results of the analysis of the VAIC-stock performance relationship are reported in column 3 of **Table 3**. Consistent with all previous regressions, the model as a whole appears to be a good model for performing the regression analysis. The outcomes demonstrate that there is a positive, and significant connection between the intellectual coefficient and the securities exchange execution of the organizations, hence, supporting the hypothesis, H_3. Recall that ICE alone is an insignificant determinant of MB in **Table 2**. The likely explanation of the significance of VAIC here is that it is a combination of ICE and CEE, and CEE came out to be highly significant in the previous regression on MB. This significance of CEE may lead to the significance of VAIC. The coefficient of AGE demonstrates that if firms achieve more age, their stock value plummets. This may be very difficult to justify. However, the personal goods sector of Pakistan has been suffering from various problems related to the availability of economical inputs. This may shake the advantage of becoming a mature firm. Stakeholders of the firms often voiced their concerns in order to get access to a bailout package for the restoration of those firms which were about to shut down, or had already shut down their operations. The size of the firms bring significant, positive changes in the stock performance, and the financial leverage brings significant, negative changes in the stock performance.

Table 3: Regression Results: VAIC as Independent Variable

Independent Variables	Operating Performance (Model 4)	Financial Performance (Model 5)	Stock Market Performance (Model 6)
VAIC	0.002894** (0.000969)	0.010018** (0.000533)	0.131489** (0.011114)
AGE	-0.017788** (0.003355)	0.018274** (0.002177)	-0.126038** (0.045325)
SIZE	0.124954** (0.025961)	-0.174514** (0.016259)	0.935896** (0.338434)
FL	-0.028327 (0.044959)	-0.201305** (0.030606)	-4.085158** (0.637101)
F Statistics	10.91**	152.32**	55.20**
No. of obs.	904	914	914

Standard Errors are shown in parentheses
* and ** represent significant at 1% and 5% respectively

The stock market of Pakistan is considered a weak form of an efficient market which operates on the basis of rumors, and firm specific internal politics, but the results indicate that the investors of PSX give significant weightage to VAIC. They might consider VAIC a value added resource in their wealth maximization process

It is obvious from the results that VAIC has a positive, significant contribution in the operating, financial and stock market actions of the firms, which are in line with the empirical findings of various authors such as Kamboj et al. (2015), Surroca et al. (2010), Firer and Williams (2003), Mickey and Goo (2005), Muhammad and Ismail (2009), Hsu and Wang (2012), Zéghal and Maaloul (2010), Kamukama et al. (2011), Sydler et al. (2014), Ling (2013), Nimtrakoon (2015), Ozkan et al. (2017) and DTI (2007). This also postulates that there must be a focus on the practical significance of the value added intellectual coefficient. Comparing the results of **Table 2 and Table 3**, the impression of the independent variable, and the control variables on different performance measures of the firms shows an inconsistent mixture which is shown in **Table 2**; however, the results become steadily significant and consistent in **Table 3**. The cumulative effect of VAIC is completely positive and significant.

6 Conclusion

In the contemporary age, knowledge is supposed to be a supreme strategic resource in accumulating benefit for the firm. Under the paradigm of the knowledge based view of the firm, the firms armed with knowledge concentrated resources are more competitive, as compared to the firms which do not have them. The firms in developing countries can also enhance their competitive advantage by focusing on these knowledge-oriented resources.

One of the most important resources associated with knowledge is perceived as intellectual capital. Although highly desirable, the intellectual capital-firm performance phenomenon is still less studied in developing countries such as Pakistan, and this was the primary motivation which led to carrying out this research study. More specifically, the objective of this study is to assess the effect of intellectual capital on the operating, financial and stock market performance of the firm.

ICE (a proxy for intellectual capital) has a significant, positive effect on both the operating and financial performance of the firms, while CEE has an insignificant, negative impact on the operating performance, and an insignificant, positive impact on the financial performance of the firms. This means that the firms in the personal goods sector, listed in PSX, that enjoy greater operating and financial benefits are those which accumulate more intellectual capital resources. The analysis of the stock market performance model show different results: the effect of ICE becomes insignificant, and CEE has a significant and positive effect on stock market performance.

Human capital stands for the knowledge, qualifications and abilities of the personnel and the firms' compensation of their staff in an appropriate manner. Structural capital refers to the knowledge which remains with the organization after its staff members leave for their homes. VAIC comprises of both CEE, and ICE. According to the results, VAIC has a positive effect on all the performance measures of the firms. According to the composite effect of VAIC, the regression results suggest that the more firms invest in physical and intellectual resources, the more profitability they enjoy in all three areas of performance.

This study contributes to the research on intellectual capital in many ways. In the larger context of things, the results support the previously argued positive role of intellectual capital on firm performance. Moreover, this study extends the empirical literature by analyzing the intellectual capital-firm performance relationship in a relatively less researched area: Pakistan. Other than that, the study is helpful in understanding the role of strategically critical factors of firm growth and profitability. The results are important for managers/decision makers to have a confident direction in deciding the optimal knowledge-oriented resource allocation, and in investing firm sources to acquire such optimal resources, which are still ignored in the developing world.

The results of the study imply that firms in emerging markets such as Pakistan (only manufacturing companies are included in the sample) need to focus more on intellectual capital resources, as compared to physical and financial capital resources, in order to increase their operating and financial performance. Operating performance mainly relates to the operating profit margin of the firm, and financial performance refers to the net profit available for all stockholders, generated using all the assets of the firm. By keeping in view the results of the stock market performance model, investors in Pakistan may give more importance to those firms which invest more in physical and financial resources, as compared to those that invest more in intellectual capital resources. Firms need to shift their focus towards developing knowledgeable individuals, by making investments in the form of financial benefits, training for the adoption of more advanced approaches of working, and providing better working conditions. Accountants can adopt the VAIC approach to disclose the value addition items in the form of value added statements, or as a part of the financial statement analysis. Other than that, the stock market investors can make decisions regarding investments in a more efficient manner by comparing the value added capital employed resources, and value added intellectual capital resources using the stock market performance model.

It must be noted that no study comes without certain conditions and limitations. Some limitations, and the future courses of action are as follows. Only a single structural approach (i.e., VAIC) is used in this study to evaluate the relationship between intellectual capital components and the firm performance indicators. More methods can be incorporated in order to validate the concept in which the effect of intellectual capital on firm performance can be analyzed. Secondary data sources are used widely in the study. For future studies, primary data sources can be incorporated to further elaborate, and operationalize the concept in more detail. The efficiency of IC is limited to two components, i.e., Human Capital and Structural Capital. Structural capital can further be elaborated into various capital components, which contribute in value addition. Only one sector, i.e., personal goods, is sampled in the study for analysis. More sectorial studies and comparative analysis can be carried out as well.

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Appendix

TableA1: Hausman Test for Model 1

Dependent Variable: OIS				
	Coefficients			
Independent Variables	**Fixed-Effect**	**Random-Effect**	**Difference**	**S.E.**
ICE	0.006252	0.0066765	-0.0004241	0.0003725
CEE	-0.000636	-0.0000251	-0.0006109	0.0004033
AGE	-0.017908	-0.0003957	-0.0175123	0.0032638
SIZE	0.130071	0.0287296	0.1013422	0.0243459
FL	-0.027577	-0.0513746	0.0237975	0.0323695
Prob>chi2	0.0000			

Table A2: Hausman Test for Model 2

Dependent Variable: ROA				
Independent	Coefficients			
Variables	**Fixed-Effect**	**Random-Effect**	**Difference**	**S.E.**
ICE	0.0143148	0.0151746	-0.0089222	0.0012029
CEE	0.0005683	0.000585	-0.0012211	0.0010626
AGE	0.0167003	0.0011471	-0.1906854	0.0033001
SIZE	-0.1460191	-0.0309146	0.1609864	0.0251848
FL	-0.176015	-0.1312619	0.1036847	0.0396641
Prob>chi2	0.0000			

Table A3: Hausman Test for Model 3

Dependent Variable: MB				
Independent	Coefficients			
Variables	**Fixed-Effect**	**Random-Effect**	**Difference**	**S.E.**
ICE	0.0000315	0.0039318	-0.0039003	0.0024004
CEE	0.4206747	0.4270866	-0.0064119	0.0037014
AGE	-0.0778704	-0.0109193	-0.0669511	0.0348652
SIZE	0.0639491	-0.043955	0.1079041	0.2480712
FL	-4.859041	-3.111247	-1.747794	0.3320326
Prob>chi2	0.000			

Table A4: Hausman Test for Model 4

Dependent Variable: OIS				
Independent Variables	**Coefficients**			
	Fixed-Effect	**Random-Effect**	**Difference**	**S.E.**
VAIC	0.0028949	0.0033996	-0.0005048	0.0002771
AGE	-0.0177808	-0.0003533	-0.0174275	0.0032892
SIZE	0.1249549	0.0291506	0.0958042	0.0245070
FL	-0.028327	-0.0571269	0.0287999	0.0327718
Prob>chi2	0.000			

Table A5: Hausman Test for Model 5

Dependent Variable: ROA				
Independent Variables	**Coefficients**			
	Fixed-Effect	**Random-Effect**	**Differences**	**S.E.**
VAIC	0.0100188	0.0105747	-0.0005559	0.0000264
AGE	0.0182744	0.0012426	0.0170318	0.0021259
SIZE	-0.174514	-0.0333195	-0.1411945	0.0151386
FL	-0.2013052	-0.1532942	-0.048011	0.0214292
Prob>chi2	0.000			

Table A6: Hausman Test for Model 6

Dependent Variable: MB				
Independent Variables	**Coefficients**			
	Fixed-Effect	**Random-Effect**	**Difference**	**S.E.**
VAIC	0.1314898	0.1375442	-0.0060544	0.0026992
AGE	-0.1260381	-0.014875	-0.1111631	0.0441569
SIZE	0.9358962	0.0848217	0.8510745	0.3136316
FL	-4.085158	-2.211391	-1.873767	0.4429846
Prob>chi2	0.0000			

Table A7: Variance Inflation Factor and Tolerance

Independent Variables	VIF	Tol.	VIF	Tol.	VIF	Tol.
	Model 1		**Model 2**		**Model 3**	
ICE	1.02	0.98	1.02	0.98	1.02	0.98
CEE	1.00	0.99	1.00	1.00	1.00	1.00
AGE	1.03	0.97	1.03	0.97	1.03	0.97
SIZE	1.12	0.89	1.11	0.90	1.11	0.90
FL	1.09	0.92	1.10	0.91	1.10	0.91
	Model 4		**Model 5**		**Model 6**	
VAIC	1.01	0.99	1.01	0.99	1.01	0.99
AGE	1.03	0.97	1.03	0.97	1.03	0.97
SIZE	1.12	0.89	1.11	0.90	1.11	0.90
FL	1.08	0.92	1.09	0.92	1.09	0.92

Abbreviations

CE	Capital Employed
CEE	Capital Employed Efficiency
FL	Financial Leverage
HC	Human Capital
HCE	Human Capital Efficiency
IC	Intellectual Capital
ICE	Intellectual Capital Efficiency
MB	Market to Book Value
OIS	Operating Income to Sales
PSX	Pakistan Stock Exchange
RBV	Resource Based View
ROA	Return on Asset
SC	Structural Capital
VA	Value Added
VAIC	Value Added Intellectual Capital Coefficient
VRIO	Valuable, Rare, Inimitable and Organization

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Are Bank Employees Satisfied with Perceived Leadership and Empowerment?

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Abstract

One of the reasons affecting job satisfaction is the leadership style that engages the employees on a daily basis. Although perceived leadership has been studied well in the past, but there are fewer studies focusing on the mediating effect of employee empowerment. The key objective of this research is to study the relationship of perceived leadership, employee empowerment and job satisfaction of the employees, and also to study the mediating role of employee empowerment on the relationship between perceived leadership, and job satisfaction of the employee. A sample of 200 professionals from different banks was selected for the purpose of this study. Moreover, the Smart PLS 3.0 software was used to analyze whether the model was fit by referring to the PLS-SEM. The results of this study revealed that the independent variable (perceived Leadership) has a significant and positive influence on job satisfaction. All the hypotheses were accepted, and there were none that could be rejected after the results were revealed. The study proves that a partial mediating effect of employee empowerment exists between perceived leadership and job satisfaction. This study can help managers in designing the right strategies for retaining their employees by empowering them according to the boundaries set by their organizations. The results can help organizations to identify the potential reasons for job satisfaction, which will eventually lead to higher productivity and profitability.

Keywords: Perceived leadership, employee empowerment, job satisfaction, mediating effect of empowerment, and Pakistani banks.

JEL classification: J2, M10, M12.

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1. Introduction

Over the years, the business environment has changed rapidly around the globe. Increasing competition calls for organizations to allocate their resources in the most efficient way in order to gain a competitive edge over others in the market. Just as there has been a dynamic change in other sectors, the banking sector of Pakistan also requires development and research, so that it can achieve outstanding growth (Shahid, Rehman, Niazi & Raoof, 2010). Looking back at the history, it can be observed that the banking sector has continuously grown for almost ten years. Financial institutions such as banks face day to day challenges, so as to endure in this strong, competitive business environment which is paving its way into Pakistan as well. It must be noted that in order to sustain in the market, banks face the challenge of providing high-quality products/services that give the best value for money and are economical in terms of prices (Sohail, Iqbal, Tariq & Mumtaz, 2013). If one observes keenly, the employees of a bank are mostly engaged in public dealing and relationship management. If these employees are happy and satisfied with their job, they will keep the customers satisfied otherwise, their attitudes will reflect in their demeanor towards the customers (Kundu, Kumar & Gahlawat, 2019). Traditionally, banks tend to invest in training their employees because well-trained and skilled employees are one of the main priorities of the banking system. However, employees are constantly inclined towards better opportunities in the financial sector, and switch their jobs very frequently, which has become a critical issue in such organizations (Saeed et al., 2013). Hence, there is a need to retain valuable employees by empowering them so that job satisfaction and retention can increase.

The reason for selecting the banking industry of Pakistan for this research is that this sector is facing continuous disruptions in its payment systems. These disruptions include the worsening economic conditions, political instability, and energy crises which affect the banking sector in a negative way. These factors become a cause of additional stress for employees, due to which their job satisfaction is decreasing with each passing day (Saeed et al., 2013). Pakistan is quite a diverse country, and is a motherland to the inhabitants of different cultures, traditions, religions, and economies. The reasons of motivation, and satisfaction of the people of Pakistani are different from the other countries of the world. For this very reason, the studies conducted in other countries on employee empowerment, leadership and job satisfaction cannot be fully applied to the Pakistani context. Several times, the organizational culture does not allow employees to make decisions on their own (Gokhan & Kuzey, 2019), and this is why they are bound to follow the commands of their superiors. Therefore, it is a need of the time to study the effect of perceived leadership on the level of job satisfaction of employees, in relation to the effect of employee empowerment.

In previous studies, employee empowerment is well-defined in several ways, but generally, it is a procedure of giving control to employees, so as to manage their work, to openly share their ideas about work, and to improve the organizational processes (Baird & Wang, 2010; Greasley et al., 2005). Empowered employees are considered to be more committed, loyal and hardworking. They serve as strong representatives of their organizations. According to research on employee empowerment and job performance, it is evident that if employees feel empowered and contented with their job roles and responsibilities, their work performance and productivity increases. This eventually benefits the organization, and is a win-win situation for all the stakeholders involved in the organization (Greasley et al., 2005; Singh & Singh, 2019). One of the main reasons behind decreasing job satisfaction among the bank employees is due to the leadership role that engages the employees. Although the perceived leadership has been studied, there are only a few studies which analyze the mediating effect of employee empowerment, on job satisfaction. There are other factors as well which may affect the job satisfaction. These mainly include teamwork, work environment, job autonomy, nature of the job, and the behavior of the management (Danish & Usman, 2010; Hanaysha & Tahir, 2016). However, this study has specifically considered the perceived leadership in order to predict the employees' job satisfaction, based on the theoretical ground of the empowerment theory. The empowerment theory suggests that leaders have a capacity to exert control, and influence organizational decisions that affect employee job satisfaction (Kundu et al., 2019; Qing, Asif, Hussain & Jameel, 2019; Rajotte, 1996). When employees have a good interpersonal relationship with their managers/leaders, they become more satisfied with their jobs. Hence, effective leaders are the main reason behind the satisfaction of employees (Michael Ba, 2015; Pigg, 2002).

Another significant contribution of this study is to highlight the mediating role of employee empowerment in the relationship between leadership and employee job satisfaction. The theory of empowerment also suggests that the level of employee job satisfaction increase when employees get empowered and encouraged by their leaders/managers. Moreover, the empowerment theory also emphasizes that empowerment holds a central position in reciprocating the influence of employees on their leaders. In today's contemporary era, employees truly expect, and demand a sense of autonomy, competence, and regulation authority from their leaders. Once employees perceive effective leadership, they feel psychologically empowered, and become more committed and satisfied with their organizations and role in the company (Elnaga & Imran, 2014; Rajotte, 1996; Salek & Khoeini, 2016).

Past studies suggest a significant and strong relationship between job satisfaction and leadership. Both variables have been studied numerous times in the past (Bushra, Usman, & Naveed, 2011; Saleem, 2015), but there is a dearth of research that explains that employee empowerment can perhaps play a mediating role in the leadership and job satisfaction of employees. Moreover, the banking industry in Pakistan is less studied with respect to such relationships. Hence, the research questions raised in this study are: (i) What is the role of Perceived leadership affecting the job satisfaction of the bank's employees? (ii) What is the role of employee empowerment in the relationship between perceived leadership and job satisfaction?

The main reason for carrying out this research is to further understand the role of the management and leadership, especially when it comes to motivating the workforce to perform well, specifically in the banking industry of Pakistan. High turnover can be observed due to the rigidity of the rules that define the professional commitments of employees, which often seep into their personal lives as well. Several studies suggest that in instances where employees seem dissatisfied with their jobs, the next probable result of this sentiment would be the low work performance, absenteeism, high turnover intentions and other behaviors affecting the overall productivity of organizations (Danish & Usman, 2010; Saeed et al., 2013). Hence, the key objectives of this research include the identification of the effect of perceived leadership on the employees' job satisfaction at the bank, and the identification of the mediating effect of employee empowerment in relationship between the perceived leadership and the job satisfaction of the banks' employees.

2. Literature Review and Hypotheses Development

It is noticeable, that a lot of research work has been carried out in order to investigate the phenomenon of job satisfaction, especially over the last 50 years, with respect to the attitude of people within the organization. It is a complex subject and has attracted many researchers to shed light over the issues that surround it (Loi, Yang & Diefendorff, 2009). An employee's job satisfaction is not only good for the organization, but is also important for the organization's culture (Saeed et al., 2013). Job satisfaction, leadership, and empowerment have been studied widely in different domains and contexts (Qing et al., 2019; Shaista, Muhammad, Muhammad & Syed, 2019; Yong, Peiwei, Jingying & Hui, 2019) however, the mediating effect of employee empowerment and perceived leadership with the job satisfaction of the employees is an area of study that has not been studied in depth.

2.1 Theoretical Underpinnings

The theoretical background of this study is based on the concepts put forth by the two-factor theory of satisfaction (Herzberg, 1959). This theory helps in the identification of several factors which affect the job satisfaction of employees. Herzberg (1959) divided these factors into two categories of motivational factors; extrinsic and intrinsic factors. The extrinsic factors, also known as the hygiene factors, are not directly linked with the job design. The extrinsic factors include pay, supervision, work environment, and the relationships enjoyed with an employee's peers and supervisors. The absence of these extrinsic factors is the main reason that leads to employee dissatisfaction (Dartey-Baah & Amoako, 2011). On the other hand, there are intrinsic factors (Ewen, Smith, Hulin & Locke, 1966), which are directly related to the job. The Intrinsic factors may include nature of the work, promotion, recognition, achievement, communication, career growth, and responsibilities. These factors are the main motivators influencing the job satisfaction level of the employees. On the basis of the theoretical underpinnings, given below is the discussion about job satisfaction, perceived leadership, and employee empowerment, as a series of three different constructs used in this study:

2.1.1. Job Satisfaction

In general, the employees' satisfaction is a factor that is used to mention people's psychological situations, when their needs have been met. The satisfaction of employees is one of the important factors, which links the organizational demands with the needs of employees, and hence, also enhances their happiness (Crawford, Lepine & Rich, 2010). Scholars suggested that the job satisfaction of an employee lays the whole emphasis on the fact whether "the rewards received, actually meet or exceed the received equitable level of rewards" (Porter & Lawler, 1968, p.31). Therefore, it would be appropriate to say that job satisfaction is a combination of different expectations of employees, such as a handsome pay, autonomy, career growth, etc. These combinations, however, may be different for different individuals, that too in different situations. The other dimensions of job satisfaction reflect its positivity in terms of various factors, such as, for example, the positive emotions associated with the job. It is a pleasurable state that is achieved because of the professionally sound experiences and appraisals on the job (Locke, 1976). Other scholars share the opinion that there is an emotional reaction that takes place in either liking or disliking the work experiences that one comes face to face with, and such emotional feelings can impact the employees' social behavior (Buitendach, 2005). According to Rad and Yarmohammadian (2006), the greater the difference between work experience of employees and their level of expectations from their job, the greater are the chances of dissatisfaction associated with their respective job roles/positions. Another orientation of job satisfaction is the combination of different work attitudes and work statuses. These work attitudes drive the behavior of the employees during their work hours. Positive attitudes reflect higher job satisfaction, and negative attitudes reflect the signs of job dissatisfaction (Armstrong, 2006; Yong et al., 2019).

2.1.2 Perceived Leadership

In the field of social sciences, it is important to note that 'Leadership' is one of the most extensively studied subjects. It has gained prominence almost everywhere, from the field of education to social organizations, as well as from politics to business. It is one of the critical components affecting an employee's job satisfaction, because of its role in creating the good/bad perceptions of employees at the workplace (Macey & Schneider, 2008; Wang & Walumbwa, 2007). Leadership in organizations is actually a relationship of the management with their subordinates. The leadership of a boss or a leader is not separated from the perception of employees, as the leadership style is crucial for the empowerment, encouragement, and engagement of employees (Attridge, 2009). It is believed by several scholars that a supervisor can enhance an employee's level of engagement at work. Distance between the employees and their supervisors affects the perceptions, and this, as a result, have an outcome of positive or negative performance and attitudes (Avolio, Zhu, Koh & Bhatia, 2004). A better or more acceptible (according to the organizational culture) leadership style of supervisors predicts better outcomes for an organization. Moreover, better and more effective leadership of the supervisors affect the employees' job satisfaction, turnover intention, empowerment and performance (Gerstner & Day, 1997). If a supervisor acts as a leader with his behavior, and leads by exemplary actions, he may strongly influence the employees of an organization.

2.1.3 Employee Empowerment

Employee empowerment is not a new construct to be studied in the Pakistani society. This construct was taken as an independent variable in most of the studies that were conducted earlier. In Pakistan, employees empowered as much as they should be, therefore, their job satisfaction may decrease due to the mediating effect of empowerment (Elnaga & Imran, 2014; Qing et al., 2019). Empowerment is important, as well as beneficial for the organization as well as its employees. Organizations must provide a culture where self-managed and accountable teams can emerge. Employees who feel empowered within an organization, turn out to be more effective in their work, as they see themselves as individuals who are innovative and highly competitive (Quinn & Spreitzer, 1997). When organizations empower their employees, their efficiencies tend to increase. This is because employees perceive this empowerment as a constructive initiative from their employer, and feel that they are in total control of their job designations and performance. They start feeling more connected to their employer, as their commitment and loyalty gets aligned with the vision of their organization (Shaista et al., 2019; Sternberg, 1992). When managers empower their employees, such employees have a chance to develop their self-worth, which helps these managers ignore negative emotions such as helplessness and powerlessness within the given role that they are performing within the organization. Empowered employees become intrinsically excited to work, and become more energetic in performing up to the mark (Fernandez & Moldogaziev, 2013).

2.2. Effect of Perceived Leadership on Job Satisfaction

When we talk about increasing the level of productivity of employees in an organization, the concept of job satisfaction holds critical value. Not only for employees but for the overall benefit to the organization, managers need to lay great emphasis on ways to increase employees' satisfaction level at their respective workplaces (Ahmad & Yekta, 2010; Danish & Usman, 2010). So it is necessary to gain an understanding of an organization's leadership, and how its followers think about their leaders because the previous studies have suggested that perceived leadership may positively affect the employees' level of job satisfaction. Several studies have already been conducted in different countries, pointing towards a positive relationship between employees' job satisfaction and the role of a supervisor as a leader in an organization (Ahmad & Yekta, 2010; Qing et al., 2019). Leading organizations aim to collaborate more with their employees and make them "partners in the businesses". The main objective behind this collaboration is to develop a sense of mutual trust among the employees and the organization. When employees feel that they are being valued by their employer, only then they would deliver that exponential performance, which organizations seek in their employees, and this is exactly what benefits the corporation in the long run (Cabrera & Cabrera, 2002; Shaista et al., 2019; Sternberg, 1992). On the basis of the past literature, the following hypotheses for this study is derived:

Hypothesis 1: Perceived leadership positively affects employees' job satisfaction.

2.3 Mediating Effect of Employee Empowerment

Previously, Employee Empowerment has been considered a mediating variable in several studies, for example, a research was conducted in the Netherlands which concluded that the psychological empowerment of a follower plays a mediating role between leadership types (Pieterse, van Knippenberg, Schippers & Stam, 2010). As a mediating variable, Employee Empowerment was also used in a study that affected the job satisfaction of employees. Similarly, empowerment has also been used as a mediating variable in several other studies (Carless, 2004; Kundu et al., 2019; Qing et al., 2019). For example, in a study conducted previously, psychological empowerment was found as a mediating variable in the relationship between leadership and employee's attitude towards the job (Castro, Periñan & Bueno, 2008), and it has also been taken as a mediating variable in the relationship between the independent variable i.e. leadership style, and the dependent variable i.e. organizational commitment (Avolio et al., 2004; Lee & Kim, 2008). Furthermore, empowerment has also been taken as a mediating variable in a study which concluded that empowerment mediates the relationship between leadership and job satisfaction (Ugboro & Obeng, 2000).

2.4 Empowerment and Job Satisfaction

Scholars have studied the relationship between employee empowerment and job satisfaction, and discovered that the dimensions of empowerment strongly influence job satisfaction. It has been observed that when employees find a similarity between their objectives and the goals of their particular organization, their capability of performing well becomes better by manyfold. Through research, it has been found that a positive relationship exists between empowerment and job satisfaction (Fulford &

Enz, 1995; Oluwaseun, 2016; Qing et al., 2019). Structural empowerment in organizations affects the employee's job strain, and psychological empowerment acts as a mediating variable between structural empowerment and job satisfaction (H. Laschinger, 2008; Pelit, Öztürk, & Arslantürk, 2011). Another study revealed that the changes in psychological empowerment, and job satisfaction are directly affected by the perceived structural empowerment (H. K. S. Laschinger, Finegan, Shamian & Wilk, 2004). Furthermore, a deeper investigation into the literature revealed that the employees' perception of empowerment is directly influenced by the perception they have of their work environment, and this empowerment, ultimately influences their level of job satisfaction. Many scholars studied this phenomenon and came to the conclusion that psychological empowerment, and job satisfaction are positively related, and a strong direct relationship exists between these two variables(H. K. S. Laschinger, Finegan & Shamian, 2002; H. K. S. Laschinger et al., 2004).

2.5 Empowerment and Perceived Leadership

This study has taken perceived leadership as an independent variable, so as to study its effect on job satisfaction, whereas empowerment has been considered a mediating variable in this relationship. Previous researches have also considered empowerment as a mediating variable between perceived leadership and job satisfaction (Kundu et al., 2019; Ugboro & Obeng, 2000). The empowerment theory has been referred to in several studies, in order to investigate the relationship between leadership and empowerment (H. K. S. Laschinger et al., 2004; Rajotte, 1996). Empowerment has widely been researched with respect to perceived leadership, and different styles of leadership. One of the studies has highlighted the critical role of empowerment in such organizations, where management styles vary (Michael Ba, 2015). The role of perceived leadership and employee outcome (empowerment) has also been discussed by measuring job satisfaction in the chemical industry (Nel, Stander & Latif, 2015). On the basis of the previous studies and discussion, the following hypotheses are derived:

Hypothesis 2: Employee empowerment mediates the relationship between perceived leadership and job satisfaction.

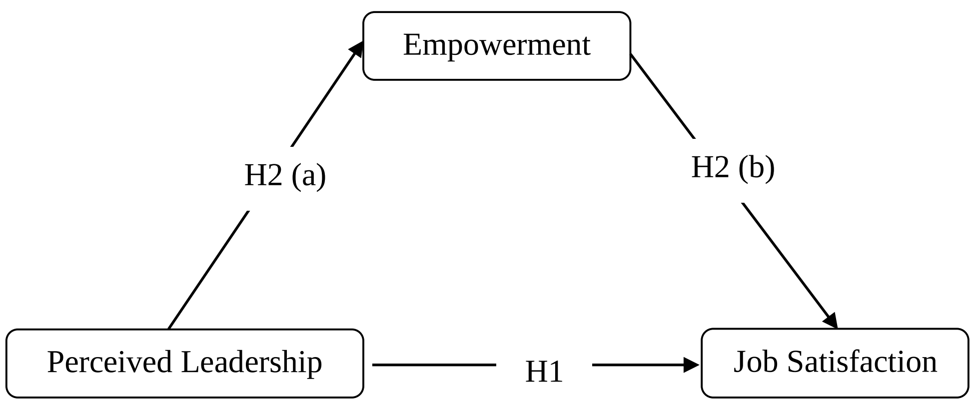
Hypothesis 2a: Perceived leadership positively affects employee empowerment

Hypothesis 2b: Employee empowerment positively affects job satisfaction.

2.6 Conceptual Framework

The literature above considers perceived leadership as an independent variable, employee empowerment as a mediator, and job satisfaction as a dependent variable. On the basis of the theoretical underpinnings, this study derives some of its hypotheses which are related to the empowerment, perceived leadership and job satisfaction. These constructs have been discessed in several studies which have proposed models which show that job satisfaction can be directly predicted by employee empowerment and perceived leadership (Barroso Castro, Villegas Periñan & Casillas Bueno, 2008; Dickson, Lorenz & Illinoisan, 2009; Kundu et al., 2019; Oluwaseun, 2016). On the basis of the discussion mentioned above, the conceptual framework of this study was develped using three variables; job satisfaction, empowerment, and perceived leadership as shown in Figure 1.

Figure 1: Conceptual framework



3. Methodology

The methodology of this study includes its research design, sampling technique, sample size, instruments used for data collection, reliability, validity and other strategies that are adopted for testing of the constructed hypotheses. This is a quantitative study, for which the empirical testing of the hypotheses is deemed appropriate (Fernandez & Moldogaziev, 2013). To collect the data, a representative sample of the population is required, as it is impossible to get responses from a large group, which typically constitutes of the targeted population of the study (Bechwati & Baalbaki, 2011). The population selected for this research includes all the banking sector employees working in any commercial bank of Pakistan, which number to around 162,629, as mentioned in the annual report of state bank of Pakistan, published in 2016. There are different opinions that have been presented when it comes to the selection of the sample size. Sekaran (2000) suggests having at least 30 respondents for each variable, in order to conduct a multivariate analysis. Similarly, various scholars also suggest that a sample size of 250 firms is one that should be deemed to be appropriate for a study, whereas some scholars suggest selecting a sample size on the basis of a confidence interval and confidence level (Hair, Black, Babin & Anderson, 2006). In this research study, we have used the 'convenience' sampling technique, in order to collect data from the targeted respondents. This technique enables a researcher to select the respondents according to their ease, however, the sample should represent a subset of the selected population (Sekaran, 2000). After the collection of data, tests, which are statistical in nature, were conducted to empirically evaluate the relevant data. For this purpose, the descriptive test, reliability, and validity tests were conducted using SPSS 17 and Smart PLS 3.0.

3.1 Instrument Development

The instrument developed on the basis of the three constructs, perceived leadership (11 items), and job satisfaction (7 items) were adopted from Almandeel (2014), and employee empowerment (5 items) was adopted from Oluwaseun (2016). In total, there were 27 items in the questionnaire, including the demographics, and 22 items were representing the selected constructs. The scale used to get the questionnaires filled is a 5-point Likert scale, in which 5 stands for 'extremely disagree', and 1 represents 'Strongly Agree'. The adopted instrument for this research has already established the reliability, which means that the Cronbach alpha is greater than 0.7, which is on the positive side (Sekaran, 2000). The questionnaire was divided into 4 parts i.e. demographics, perceived leadership, empowerment and job satisfaction.

4. Results

According to the demographics depicted in this study, the marital status of the respondents is shown as 128 (64 percent) of respondents who were single and 72 (36 percent) were married. All of these respondents belong to the banking sector of Pakistan. In terms of education, the respondents having graduate degree were 120 (60%) in number, and other respondents amounted to 80 (40%) people, who had at least a postgraduate degree.

4.1 Descriptive Statistics

Typically, the regression analysis cannot be conducted on the data if it does not follow the normal distribution. To ascertain the univariate normality of the collected data, the descriptive analysis is resorted to. If the ranges of skewness and kurtosis are between -2 and +2, the data is considered as normal data (George & Mallery, 2003). Table 1 depicts the overall results of descriptive statistical analysis, which includes the sample mean, standard deviation, kurtosis, and skewness.

Table 1: Descriptive Statistics and Reliability Analysis

	Mean	**Std. Dev.**	**Skewness**	**Kurtosis**	**Cronbach's Alpha**
Perceived Leadership	3.84	3.84	-0.78	0.51	0.78
Employee Empowerment	3.72	0.75	-0.60	0.14	0.71
Job Satsfaction	3.59	0.76	-0.68	0.79	0.82

4.2 Reliability of the Constructs

The internal consistency and closely related items in a normally distributed data are checked by the Cronbach's alpha value, which ensures that the data is reliable, if the value of alpha is greater than 0.7. Although, the instrument used in this study was taken from a previously conducted research, it is still required to conduct the reliability test again due to the variation in the culture, and the respondents' level of understanding (Santos, 1999). Therefore, the reliability test by using the Cronbach alpha was conducted for the purpose of this study, and the summary of the results is presented in Table 1.

The Table 1 above shows that the reliability of job satisfaction towards perceived leadership is highest (α=.82, M=3.59, SD=0.76) while the reliability of employee empowerment is the lowest (α=.71, M=3.72, SD=0.75). The overall reliability (i.e. Cronbach Alpha) value of the instrument taken in this study is 0.83, which includes both the independent and dependent variables.

4.3 Correlation Analysis

Whether a relationship between variables exists or not is usually checked by the correlation analysis. The test of correlation analysis ensures the multi-collinearity among variables, and is a prerequisite in order to conduct the regression analysis. Scholars suggested that correlation amongst the constructs should lie between 0.20 and 0.90, otherwise the item should be discarded. If the correlation coefficient is greater than 0.90, the items can be also merged together (Bryman & Bell, 2007). The correlation analysis results are presented in Table 3.

Table 2: Correlation Results

	PL	EE	JS	Age	Marital
Perceived Leadership	1				
Empowerment	0.30*	1			
Job Satisfaction	0.46*	0.44*	1		
Age	0.47*	0.25*	0.27*	1	
Marital	0.23*	0.21*	0.29*	0.21*	1
Education	0.35*	0.40*	0.47*	0.45*	0.20*

Note: * Values are significant at p-level < 0.05

Table 3 shows that the relationship between variables is distinguishing and unique, as perceived leadership has a positive correlation with job satisfaction (r=.46), whereas employee empowerment shows a weak correlation (r=.30) with job satisfaction. The values shown in the bold font represent the Cronbach's Alpha values, which were re-ascertained as this research is conducted in a different country and culture. All values of the reliability analysis satisfy the condition of alpha > 0.7 (Hair, Black, Babin, & Anderson, 2009).

4.4 Construct Validity

When constructs are adopted in any research, their validity must be ensured due to the variance which might occur because of cultural and demographical differences. The constructs used in this study were previously used in different studies as well, so administering them according to the Pakistani environment may affect the results. Therefore, to maintain the uniformity of the study, it was required to ascertain the validity of the respondents' data. Construct validity is determined by conducting the tests of "convergent validity" and "discriminant validity" (Fornell & Larcker, 1981). The test of convergent validity can be ascertained by checking the AVE (average variance explained), the values of which must be greater than 0.40. Since all the values of AVE in this research are greater than 0.4, it means that the data fulfills the requirements of the convergent validity (Hair et al., 2009).

4.5 Discriminant Validity Test

The uniqueness of the correlated variables is identified by conducting the test of discriminant validity. The discriminant validity test ascertains that the variables are distinct in nature (Hair et al., 2009). The process of conducting discriminant validity test includes the calculation of the square root of total variance explained, which must be greater than the value of each pair of correlation (Ansari, Khalid, Jalees & Ramish, 2017; Fornell & Larcker, 1981). The respondents' data in this study fulfills the requirement of discriminant validity, as summarized in Table 4.

Table 3: Discriminant Validity

	PL	Emp	JS
Perceived Leadership	0.83		
Empowerment	0.09	0.88	
Job Satisfaction	0.21	0.19	0.81

4.6 Structural Equation Modeling and Mediation Analysis

As this is a cross-sectional data analysis, Harmon's Single Factor test is recommended to check the common method bias. The specified test recommends that a single factor should explain more than 40% of the variance, which reduces the chances of the common method bias (CMB), hence this study fulfills the requirement of CMB (Ali, 2016; Reams, 2013).

The overall model was tested through the PLS-SEM analysis, using the Smart PLS 3.0 software. The Confirmatory Factor Analysis CFA was carried on the PLS-SEM in order to test the model. All factor loadings were found significant and above the acceptance criteria i.e. 0.5. The values of reliability and validity analyses were also found to be positive in nature i.e.

composite reliability > 0.7, AVE >0.5, and Cronbach's alpha > 0.7. Moreover, the multicollinearity test indicates that all VIFs >= 1, hence no chances of multicollinearity were found (Ansari et al., 2017; Fornell & Larcker, 1981; Hair et al., 2006). The model fit indices show the result that NFI = 0.81 and SRMR = 0.08. The approximate fit indices include the Standardized Root Mean Square Residual (SRMR), which is recommended to be less than 0.08, however, the cutoff value is 0.1 (Henseler et al., 2014). Hence the model represents an acceptable goodness of fit.

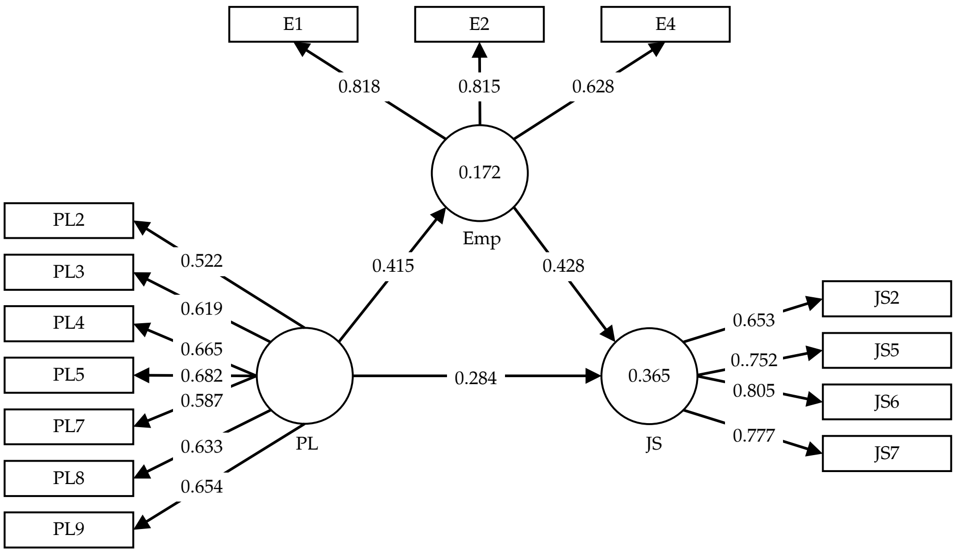
Table 4: SEM Coefficients and Specific Indirect Effect of Perceived Leadership on Job Satisfaction

	Coefficient	t-Statistics	Hypothesis
Emp → JS	0.43	5.87	Supported
PL → Emp	0.42	5.74	Supported
PL → JS	0.28	3.57	Supported
PL → Emp → JS	0.17	4.24	Supported

The results of the test indicate that there is a significant effect of empowerment on job satisfaction, perceived leadership on empowerment, and perceived leadership on job satisfaction (See Figure 2). Therefore, empowerment can be considered as a mediating factor between perceived leadership and job satisfaction. For testing the mediation analysis, the bootstrapping method with subsamples of 2000 is used in this research. After conducting the bootstrapping test, it was found that the specific indirect effect of perceived leadership on job satisfaction is significant, but the effect has been reduced from 0.28 to 0.17 (See Table 5), which shows that a partial mediation of Empowerment exists between perceived leadership and job satisfaction (Baron & Kenny, 1986).

It is found that empowerment (mediator) and perceived leadership (predictor), both, are creating a positive effect on the dependent variable i.e. job satisfaction, as identified in Table 5. The regression analysis indicates that the overall model is significant, and the predictor variables i.e. empowerment and perceived leadership, significantly affect the dependent variable i.e. Job satisfaction explains 34.8% of the variance (R^2= 0.259, F (2, 197) =25.9, p<.05). These results represent a larger, more expansive effect, as suggested by Cohen (1988).

Figure 2: Structural equation modeling using Smart PLS



5. Discussion and Conclusions

Through this study, we tried to explain the significance of perceived leadership, and the effect it has on the employees' job satisfaction. Results of both the selected hypotheses of this study were found to be consistent with the results observed in previous studies. To further explain the substantiation of the hypotheses, in connection to the previous studies, the specified findings of this study are discussed below:

5.1 Hypothesis 1

Hypothesis 1 was stating the effect of perceived leadership on the employees' job satisfaction. The selected hypothesis was substantiated in this study (Refer to, Table 5). The results reveal that if the level of perceived leadership of the supervisors/bosses increases, then it will positively affect the employees' job satisfaction. This outcome is also consistent with the revelations of the previous studies, which state that the lesser the hierarchical distance between the followers and leaders, the better would be the performance of the employees (Avolio et al., 2004; Fernandez & Moldogaziev, 2013; Hanaysha & Tahir, 2016).

5.2 *Hypothesis 2*

Our analysis shows that a partially mediating and significant effect of employee empowerment exists in the relationship between perceived leadership, and the employees' job satisfaction. Results show that the second hypothesis is also substantiated. This means that employee empowerment, indeed, has a mediating effect in the relationship between the employees' perceived leadership, and the employees' job satisfaction (Refer to Table 5). This answers the second research question as well. Furthermore, results are also consistent with the previous studies that were conducted on this subject (Qing et al., 2019). Another study states that "Empowered employees see themselves as more productive in their work, with an increase in the level of commitment, and enhanced ability to try new things at work" (Quinn & Spreitzer, 1997, p.42).

This research, along with the previous literature, will contribute to the work coined in by other researchers. This is because employee empowerment, as a mediating variable, has been found in a few studies. This is especially true in the context of the banking sector where perceived leadership significantly affects empowerment by increasing the satisfaction of employees.

The concept of empowerment does not mean, specifically in the context of this study, that the employees and staff are given extraordinary power, rather, it involves a way of defining oneself, along with a capacity to complete the tasks in the given time and environmental conditions. Organizations having a strong competitive environment, such as banks, should focus on their employees, as they are the most important resource they possess, especially in a country like Pakistan. All organizations should empower their employees, along with improving their rules and policies for empowering the current and future leaders as well. Identification of the criteria, and a plan to practically implement the same is critical for an organization in order to empower its employees.

5.3 *Implication for Managers/Policy Makers*

Several studies in the past studied the different factors affecting job satisfaction in the Pakistani culture, but the mediating effect of empowerment is less studied in the Pakistani context. Managers, supervisors and human resource officials should consider this study as an important guide to motivate their employees by empowering them, and should also continue to assess the perceived leadership of the supervisors, leaders and management. The results of this study suggest that Pakistani banks should empower their human resources because the leadership effect is partially mediated by empowerment. Managers in a bank may not be considered good and effective leaders, but if they are empowered in the appropriate manner, they can run their operations smoothly because of higher job satisfaction. Continuous assessment will help banking institutions to improve their processes, and to achieve their goals in a timely fashion as the employees will be happy with their current jobs. Training and development activities are required in order to guide the supervisors and managers on how to treat their subordinates in a professional manner. Empowerment needs to be supported at all levels, and it should be reflected within the employees and the values that they reflect.

5.4 Research Limitations and Scope for Future Research

This study focuses on the employees of banks, within the geographic boundary of a metropolitan city. Not all variables, that may affect the perceived leadership and employee empowerment, were considered in this research. Moreover, psychological factors affecting the responses of the respondents were not considered in this research. It must also be noted that other dimensions of perceived leadership, job satisfaction, and employee empowerment still need further investigation. Also, the leadership styles were not considered in this study, which can be investigated in future research. Future research in this area can help to gain a deeper understanding of the effects of leadership, and empowerment, on job satisfaction. Moreover, there could be other factors which may be related to the leadership and empowerment of professionals within an organization. For instance, future studies can include demographics as mediators or moderators, in order to explain those relationships that have been examined in this research.

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The Role of Price and Promotion in Creating Brand Equity

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Abstract

The purpose of this study is to ascertain the influence of price and promotion on brand equity, which eventually leads to the determination of consumer's preference for a particular brand. This research aims to add value to the current field by testing this relationship under the influence of three other mediating dimensions including the brand image, brand loyalty and quality of the product. In order to test the proposed model, the Structural Equation Modeling technique was used in this study. Within this realm, the CFA and path analysis were used to assess the validity and reliability of the latent constructs. The results of the research revealed that the price and promotion of a particular product have a statistically significant relationship with its brand equity. The results also seem to reject the mediating effect of brand image, perceived quality and brand loyalty between price and brand equity. The relationship of promotion, however, does allow for mediation by the perceived quality of a brand, but rejects the other two hypotheses. A number of researchers in Pakistan have previously conducted research on brand equity, albeit using different predictors in different industries. It must be noted that this proposed model of price and promotion, and its effects on the brand equity has not been thoroughly tested in the Pakistani context. Hence, this study proves to be a preliminary basis for further research on the linkages between price, promotion actions and brand equity.

Keywords: Perceived quality, brand image, brand equity, price and promotion.

JEL classification: L10, L20, M19, M31.

1. Introduction

In today's era of rapid globalization, branding has become an imperative part of successful and distinguished business practice. Branding is omnipotent in all different types of industries. It occupies a unique position in business at both national and international levels. What

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is also quite intriguing being that brands can be bought, sold, rented and borrowed (Majerova & Kliestik, 2015). They are an essential component of a business – one that expresses the product in the form of a name, term, sign, symbol, design or logo, and hence, creates a strong and stable link of communication with the consumers (Misankova & Chlebikova, 2013). A brand is a distinguished form of product information which incorporates how the consumers react to different marketing activities that are performed on the particular brand (Keller et al., 2011).

Since the early 1980s, extensive research has been conducted, specifically focusing on brand equity measurement (Erdem, Swait & Valenzuela., 2006; Kamakura & Gary, 1993). Other than this, there have also been a number of other studies, particularity emphasizing on brand value estimation (Ailawadi, Lehmann & Neslin, 2003; Simon & Sullivan, 1993). According to Keller (1993), brand equity is defined as "the differential effect of brand knowledge on consumer response to marketing of the brand." In Keller's (1993) research, this concept is particularly specified by the dissimilarities that exist between responses of consumers, when the marketing of branded / unbranded products is in question. His findings reveal that a more favorable response is given by consumers to brands with high brand equity, as compared to brands which possess low equity. In this regard, Farquhar (1989), p.24 "Brand equity is the "added value" with which a brand endows product; this added value can be viewed from the perspective of the firm, the trade, or the consumer".

The concept of brand equity holds critical importance for many organizations, as it has now become a priority for successful product marketing, and also aids the firms in developing a significant identity in the market (Aaker, 1991). The marketing strategies applied in order to strengthen the brand equity of a particular product are very useful, as they create value for the product's customers (Kim & Damhorst, 2010). The brand equity of a particular brand, as a factor, is developed as a result of consumers' perceptions about the brand, and as a result, it symbolizes the position of the product in the minds of the consumers. In the empirical world where markets exist, we come in contact with different types of products on a daily basis. Due to the advent of different modes of advertisement, some brands are familiar to us, while others are not; therefore, launching a new brand can either lead to a product's and subsequently, a business's success, or failure. According to Cass and Grace (2003), branding helps in reducing the research cost, perceived risk, and the signal quality of the product for the consumers. Moreover, as we build upon this concept, it is noteworthy that, Aaker (1991, p.65) suggested that, "the set of brand assets and brand liability is related to the brand and its symbol, sign and brand name, and it also takes role of increasing or decreasing the values that a product or service offer to corporations or customers." He also proposed that brand assets are an amalgamation of brand loyalty, brand association, perceived quality, brand awareness and other properties. Other researchers (Heding, Knudtzen & Bjerre, 2015) also classified brand awareness, brand image, perceived quality and brand loyalty, as a part of the brand equity realm (Shin, Kim, Lim & Kim, 2014).

The importance of brand equity, in the field of marketing, cannot be overemphasized, as it is advantageous on multiple facets. A brand's strong equity will satiate the customers' wish to spend on top quality products. It will also encourage product documentation. Moreover, positive brand equity aids the performance of promotion interaction that is part of a firm's marketing strategy. From a retailer's point of view, strong brand equity will translate into a collaborative effort by the retailers as they will tend to work together and provide support to the business. Other than this, there will be a versatility of clients when pricing the discount rates. Lastly, a brand's positive equity will help make the clients' demand for the particular product, inelastic in nature, i.e., they would be willing to purchase the same or perhaps even more, despite the increase in price (Pitta & Katsanis, 1995; Simon & Sullivan, 1993; Yoo, Donthu & Lee, 2000).

This research aims to explore whether price and promotion play a pivotal role in increasing brand equity. This paper has also attempted to explain the relationship between price and the promotion mix, and the growth of brand equity. A number of researchers (Aqeel et al., 2017; Shahzad, 2017) have conducted research on the concept of brand equity, using different predictors in different industries. The main contribution of this paper to the current research is an attempt to fill in the existing gaps in literature. This is undertaken by testing the impact of price and promotion on the brand equity, primarily by using three mediators in the context of Pakistani businesses. Moreover, it must be recognized that this research provides a basis for further research on the linkage between the different deciding factors which include the price, promotion actions, brand equity.

Section two of this paper gives a comprehensive review of the literature, along with the proposed hypothesis regarding price, promotion, brand image, perceived quality, brand equity, brand loyalty. Going further, section three presents the methodology used to conduct this research. Section four provides the background of the data sources, followed by the descriptive analysis and explanation of the research findings of this study. Finally, section five comprises of the discussion and conclusions drawn from the research conducted for the purpose of this study.

2. Theory and Hypotheses

This research aims to explore whether price and promotion play a critical role in increasing brand equity. Moreover, this paper also attempts to explain the relationship between price and promotion mix, and the growth of brand equity. The following section highlights the importance of these variables, and the hypotheses have been developed based on the reviewed literature, using references from past and future directions.

Brand equity is considered as an added value feature in the market that is targeted by a brand. It can either take the form of a product or a service (Ghantous & Jaolis, 2012). The purpose of brand equity is to improve the brand loyalty, by taking into account the customer's feedback (Tan, Devinaga & Hishamuddin, 2012). Brand association, brand awareness, perceived quality, brand image and brand loyalty are the basic drivers of brand equity (Aaker, 1991). Nam, Ekinci and Whyatt (2011) presented in their study the influence created by brand loyalty on brand equity, along with the facilitating effect of brand satisfaction in the hospitality sector, specifically focusing on the branch level which includes restaurants and hotels. It is thus stated that the major components of brand equity, in this case where the argument is narrowed down to the case of restaurants and hotels, includes the physical quality, brand identification, the conduct of the staff, ideal self-image and the ideal life style of the targeted customers. According to Atilgan et al. (2005), the brand equity can be measured in two ways, that is to say that it can either be finance centric or consumer centric. O'Loughlin and Szmigin (2007) suggest that the staff conduct, and physical quality are the two factors that can be used to measure effective management and administration for restaurant and hotel businesses. These two factors are directly involved in satiating the practical, on ground needs of the customers, while they are present in the premises of the hotel or restaurant. The paper explains the concept of brand equity in terms of assets and liabilities that are connected with the name, icon and value of the services of the brand (Pouromid & Iranzadeh, 2012). The quality of the administration, or in other words, the administration quality can be measured by using five different factors. These include the accurate responsiveness, compassion, dependability, substance and certification of the brand in question (Parasuraman, Zeithaml & Berry, 1988). Brands usually make their identities in the business sector, and different customers try to link themselves with these particular brands, due to which these brands eventually develop the ability to expend their brand and its presence in the market. When the shoppers expend the service or utility of their preferred brands, they are, at the same time, identifying their unique social personas from all other available social personalities that they can choose to identify with. The brands that possess a secured brand personality in their respective market tend to develop esteem and value in the eyes of the shoppers (Long & Shiffman, 2000). A company can get access to high profits as its brand equity increases over time. Brand loyalty, brand image and brand awareness are then combined to form brand equity, which greatly influences the brand awareness of a particular brand

2.1. Price

Price is considered as the value or cost consumers need to pay in exchange for product or service. It is considered as the ultimate value of a consumer's ability and willingness to pay for a certain brand (Rajh, 2005). Usually, brands which have the highest price points attached to them are considered better, or more superior, because there is a positive relation between brand image and price. This perceptive relationship ultimately increases the brand equity of a particular brand. According to Yoo et al. (2000), the price of a product is considered an effective tool which can be used to differentiate one product or brand from another. Although price has a positive relationship with quality, it must be noted that it has an inverse relationship with brand loyalty. This is so because usually, the high price point does not reflect the product's quality, but it shows that a lot of money is going to the industrial sector. As a result, it affects the brand loyalty attached to it (Cretu & Brodie, 2007; Michell, King & Reast, 2001). On the contrary, according to a study, price reveals the satisfaction level for the brand, and thus this leads to an increase in the brand loyalty (Van et al., 2005). Therefore, the following hypotheses were proposed.

Hypothesis 1: Price is positively related to brand Image.

Hypothesis 2: Price positively affects perception of product quality.

Hypothesis 3: Price positively affects brand loyalty.

2.2. Promotion

Promotion is a marketing strategy that is used to communicate the targeted image of the product and its underlying message to the targeted consumer market. All the possible tools that aid in the brand's image building efforts are used including the communication mix. Brand loyalty and brand image carry a positive relationship with promotion (Al-Dmour, Zu'bi & Kakeesh, 2013). Milgrom and Roberts (1986) also presented the idea that product quality can be easily and effectively judged through the brand promotion. Yoo et al. (2000) put forward a concept, which basically states that product promotion helps the companies to ensure a positive brand image in the eyes of the consumers. Hence, this leads to the belief that brand promotion is an easy way to increase brand equity, as it provides a platform to develop and create a positive brand image in the minds of the people.

The marketers in today's digital age come face to face with new prospects, opportunities and challenges every single day. By utilizing the electronic media sources (e.g. mobile phones SMS and MMS, social media marketing, display advertising, tablets, digital billboards, internet marketing, search engines optimization etc.) marketers promote different products and services to a wider customer base on a national as well as a global level. The basic aim of digital promotion is to provide a platform for customers to interact with brands on a direct basis, and as a result, attract more customers as there are no defined boundaries in the digital world. The effectiveness of digital promotion has a significant impact on the sales of products as proposed by Yasmin, Tasneem and Fatema (2015). Mangold and Faulds (2009) support the effective use of digital promotion as it improves and builds up on a brand's loyalty, it is more cost effective, creates a better brand image, and improves customer satisfaction. According to Van Riel, Pahud de Mortanges and Streukens (2005), there is a positive influence of promotion on the perceived quality, and brand loyalty towards a particular brand. As per the above discussion, the following hypotheses were proposed.

Hypothesis 4: Promotion is positively related to brand Image.

Hypothesis 5: Promotion is positively related to quality perception.

Hypothesis 6: Promotion is positively related to brand loyalty.

2.3. Brand Image

Brand image can be perceived as a set of relations that are formed in a special way, in the minds of the consumers, so that they leave a cognitive impact especially in the form of future recollection of the particular brand in question. It also refers to the perception about the product, that may or may not be real and accurate (Keller, 1993). Brand image also provides the customer with the required information that he or she may need in order to make a decision to buy the product. The concept is also important because it differentiates one product from another, and creates uniqueness between them as well. It develops an optimistic approach for the consumer as well (Hsu, Oh & Assaf, 2012). According to a study, the relationship between brand image and brand equity holds lesser importance, as compared to any of the other determinants (Atilgan, Aksoy & Akinci, 2005). Al-Dmour et al. (2013) explains brand image as a reflection of a brand's position in the minds of the customers. The research also explains that the brand image can be considered as one the measures of brand equity, and thus, it studies how the marketing mix affects the brand image. These efforts can contribute towards making the relationship between brand equity and marketing mix a little more clear and relevant. Consequently, another research revealed that a positive relationship existed between the brand image and marketing mix (Shabbir & Rehman, 2013). The following hypothesis proposes that brand image mediates the link between price and brand equity. Similarly, the hypothesis 7a postulates that brand image can act as a mediator between promotion and brand equity.

Hypothesis 7: The brand image mediates the relationship between price and brand equity.

Hypothesis 7a: The brand image mediates the relationship between promotion and brand equity.

2.4. Perceived Quality

"Perceived Quality is considered as the judgment of the consumer about a product's overall excellence or superiority" (Zeithaml, 1988). Al-Dmour et al. (2013) explain that perceived quality is an essential component of brand equity. Moreover, the concept also holds a positive relationship with the marketing mix. According to Bamert and Wehrli (2005), service quality and product quality are both required to measure the perceived quality of a brand, and it must be noteworthy that they are both dependent on the consumer's perception. If the things that determine the quality of the product in the consumer's mind are taken into account, and as a next step, their perceptions are managed effectively; this information can prove to be a key factor which impacts the perceived quality of a brand. The results (Bamert and Wehrli (2005), revealed that service quality has an important relationship with both, brand image and brand loyalty, whereas, product quality indicates no significant relationship with either the brand image or the brand loyalty. Hence, the results proved that not just brand equity but service quality is also an important factor with which customers measure the brand equity. Aghaei, Vahedi, Kahreh and Pirooz (2014), in their research, determine whether brand equity and marketing mix are positively related.

Hypothesis 8: The perceived quality mediates the relationship between price and brand equity.

Hypothesis 8a: The perceived quality mediates the relationship between promotion and brand equity.

2.5. *Brand Loyalty*

Bianchi, Pike & Lings (2014), explained brand loyalty as the repetitive purchases of the same brand. The attachment of the customer with the brand is known as brand loyalty (Aaker, 1991). Al-Dmour et al. (2013) describes brand loyalty as a special feeling that is felt by the customer, especially for a particular brand. Nenycz and Romaniuk (2011) deemed the measurement of brand loyalty to be very important as the results of this measurement ultimately reveal that the number of people who buy that brand upsurge its brand equity. As customers are very important for the brand's productivity, it is also equally critical to maintain the purchase intent of the customers for a particular brand. There are certain decisions that customers make, which leads them to repurchase a brand, which shows evidence of their loyalty towards their preferred brands. According to Nam et al. (2011), there is a positive relationship between brand loyalty and brand equity, including the intervention effect, which is related to the brand satisfaction. It is usually believed that getting a new customer on board is much more expensive and costly then retaining an old one. The maintenance of customers is usually assumed to be linked with their leap into a higher income bracket, or a decline in their expenses. As a result, every service or product provider is given a vote of sympathy, as it is actually the customer's situation and not the marketer's competency that is inconsistent (Woisetschläger, Lentz & Evanschitzky, 2011). In a study by Pan, Sheng and Xie (2012), it is explained that customer loyalty is very important for an organization, as it helps in developing a strong base of customers. An organization can create a strong bond with its customers by creating, nurturing and protecting their confidence in them. As per the above discussion, the following hypotheses were proposed.

Hypothesis 9: The brand Loyalty mediates the relationship between price and brand equity.

Hypothesis 9a: The brand Loyalty mediates the relationship between promotion and brand equity.

3. Theoretical Framework

Figure 1 and Figure 2 demonstrate the relationship of each construct with brand equity.

Figure 1: Framework demonstrating the relationship between Price and Brand Equity

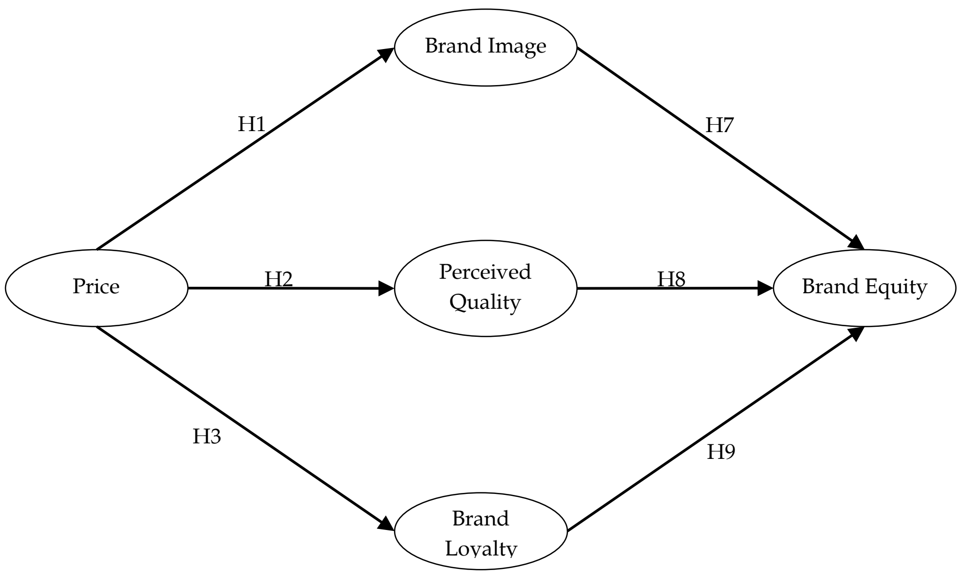
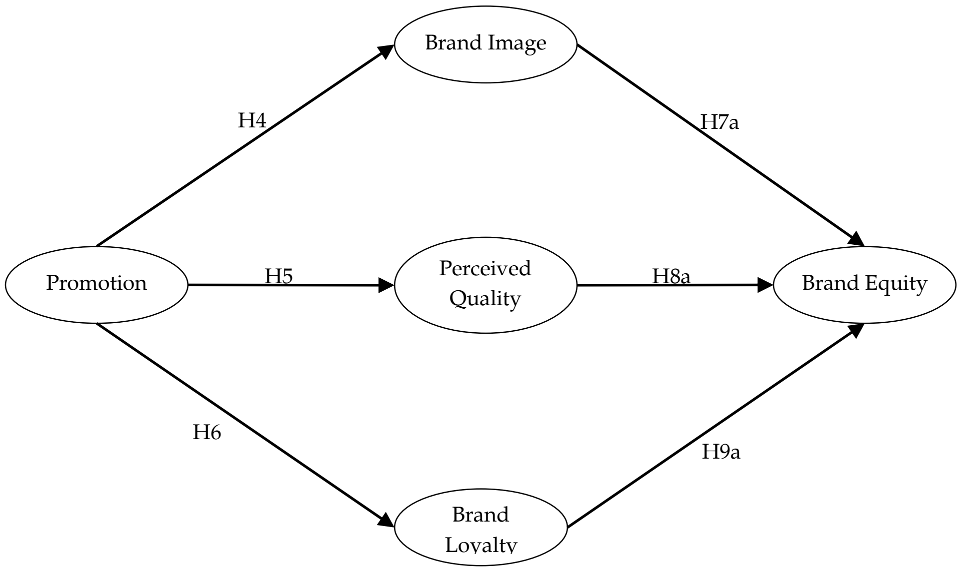


Figure 2: Framework demonstrating the relationship between Promotion and Brand Equity



4. Methodology

The following section discusses the data collection and analysis techniques used to test the proposed hypotheses of this study. It recapitulates the methods adopted to collect the data, and the expertise used to test it.

4.1. Sample Size

A questionnaire was distributed among the general public in the urban areas of Lahore. A sample size of 215 was selected through convenience sampling. Sample size is the key component required in order to use the structural equation modelling. In order to procure the sample size, two principals have to be taken into consideration. For SEM, the large sample model is used and the sample that comprise of more than 200 samples, unites together and is considered to be large. Moreover, the complexity of the structural model when selecting the sample size also needs to be taken into considered. The ratio between the parameter number, and the sample size should be at least 1:10, as a ratio less than 1:5 does not give any significant results (Kline, 1998, p. 343).

4.2. Data Collection

The research has been conducted using SPSS 20 and AMOS 18 in order to observe the impact of price and promotion, on brand equity. For this purpose, a questionnaire was designed consisting of questions regarding the socio-demographic factors. These factors were selected on the basis of the literature reviewed. Therefore, sample of items was generated and measured on a scale ranging from 1 to 7, where 7 refers to the respondent strongly agreeing to the statement, and 1 referring to the respondent to strongly disagreeing to the statement.

5. Results and Discussion

5.1. Descriptive Analysis

The primary source of the data for this study is the 215 questionnaires that were filled in by the general public in Lahore's urban residential housing societies. Respondents belonged to different ages, education, gender and localities. The questionnaire included the socio-demographic information of all the respondents.

A total of 260 respondents participated in the survey, while due to incomplete responses, 45 of these questionnaires were excluded from the study. The table shows that 63.2 % of respondents belonged to the age group of 20-25 years. The number of male respondents was 36 %, while the female respondents amounted to 64% of the total sample. Moreover, 66% of the respondents were students of bachelors' level of education. The highest number of respondents fell into an income bracket of PKR 10,000-25,000, respectively.

Structural Equation Modelling The Confirmatory factor analysis (CFA) is used for the purpose of analyzing the data and also verifying whether the questionnaire items are reliable and valid or not. For the purpose of this study, the benchmark for the factor loading test was 0.5 (Chang & Chen, 2008). The reliability of the study was tested using the Cronbach alpha and composite reliability measures. The cut point for the Cronbach alpha was set at 0.6, as proposed by Slater (1995) and Taber (2018), whereas the benchmark for composite reliability was kept at 0.6, as proposed by Singh at al. (2011). In order to fulfill the set requirements, items with a factor loading of less than 0.5 were removed from the model fit. The analysis was carried out on the basis of 6 measures, and these included the Price, Promotion, Brand loyalty, Brand Equity, Perceived

Quality and the Brand Image. Several items were discarded from all the variables, and the model fit was completed for this particular study. Table 1 shows the factor loading of the items, which is above 0.5. Initially, the questionnaire comprised of 36 items for all the variables, but due to less than 0.5 factor loading, 9 items were discarded and the measurement was further narrowed down to the remaining items.

Table 1: Reliability Analysis

Variables	Items	Factor Loadings	Cronbach Alpha	Composite Reliability
Price	Q6	0.615	0.641	0.842
	Q7	0.700		
	Q8	0.514		
Brand Equity	Q1	0.950	0.784	0.807
	Q2	0.679		
Promotions	Q10	0.740	0.802	0.801
	Q11	0.650		
	Q12	0.702		
	Q13	0.741		
Brand image	Q15	0.785	0.788	0.788
	Q16	0.821		
Perceived Quality	Q27	0.674	0.808	0.814
	Q28	0.787		
	Q29	0.846		
Brand Loyalty	Q32	0.821	0.694	0.788
	Q33	0.682		
	Q35	0.543		

The value of the Average Variance Extracted (AVE) is used for testing the reliability and validity, with standardized solutions in CFA (Hult, Ketchen & Slater, 2004). For the validity of this study, both the convergent validity and discriminant were evaluated. The Convergent validity was tested, using the average variance extracted (AVE) method with a benchmark of 0.4, as suggested by Verhoef, Franses and Hoekstra (2002), whereas the discriminant was tested by comparing AVE to the squared correlations of all constructs as suggested by Fornell and Larcker (2011).

Table 2 indicates the AVE values for price, brand equity, promotion, brand image, perceived qualityand brand loyalty. The AVE values for all the 6 constructs fell in the acceptable range hence, the convergent validity also showed evidence of validity. It also assured that reliable items have been used in order to measure the constructs. Hence, all constructs in this study were reliable and valid.

Table 2: Reliability and Validity

Variable	AVE	Convergent Validity	Composite Reliability
Price	0.792	Holds	Holds
Brand Equity	0.744	Holds	Holds
Promotion	0.827	Holds	Holds
Brand Image	0.817	Holds	Holds
Perceived Quality	0.846	Holds	Holds
Brand Loyalty	0.743	Holds	Holds

The measurement of the model fits were assessed by making use of several indices. By examining the past literature, the benchmark criterion for each value was determined. The Maximum Likelihood method was employed in the initial estimation in order to test the proposed model. By examining the past literature, the benchmark criterion for each value was determined, and used in the current research as shown in Table 3.

Table 3: Benchmark Criterion

Indexes	Criterion	References
CMIN/d.f.	Less than 5	(Sharma, Young & Wilkinson, 2006)
RMSEA	Less than 0.11	(Smillie, Jackson & Dalgleish, 2006)
Goodness-of-Fit Index (GFI)	Greater than 0.6	(Rafferty & Restubog, 2011)
AGFI	Greater than 0.8	(Nsairi & Khadraoui, 2013)
Non-Normed Fit Index (NNFI or TLI)	Greater than 0.6	(Donaldson, Everitt, Newton, Steele, Sherriff & Bower, 2008)
Comparative Fit Index (CFI)	Greater than 0.6	(Donaldson, Everitt, Newton, Steele, Sherriff & Bower, 2008)
Incremental Fit Index (IFI)	Greater than 0.6	(Abaied & Rudolph, 2010)
Reliability and Validity	Greater than 0.5	(Hair, Hollingsworth, Randolph & Chong, 2017)

The model fit results seemed to be satisfactory and there was no uni-dimensionality noticed in the revelations (CMIN/df = 1.887, RMSEA= 0.065, GFI= 0.90, AGFI= 0.854, CFI= 0.919, NFI=0.846, TLI=0.894, IFI=0.921).

Results revealed that the relationship between price, and brand image was found to be significant (p value< 0.05). Price is a very important component in building the commercial value of a particular brand, especially in terms of its market position and perception with customers and competitors. In branding literature, generally, the symbolic meanings of brands are more often highlighted (Biel, 1992; Hamiln & Wilson, 2004). Some researchers believe that brands provide customers with the foundation to express themselves (Anselmsson, Vestman Bondesson &

Johansson, 2014; Temporal & Lee, 2000).This idea has been supported by empirical work in this field, and hence proposes that the brand image, indeed is a very vital feature which impacts the responses of customers in a variety of categories (Kandampully & Suhartanto, 2000). Beyond its direct relationship with the sales and profits of a company, price has a significant impact on the brand itself, as higher prices lead to a premium brand image (Yoo, Donthu & Lee, 2000). On the other hand, lower price points serve to undercut the competition, and sometimes tend to spoil the brand image as well.

According to the results of the study, a significant positive relationship between price and perceived quality (p value< 0.05) shows the importance of this very relationship. These findings are also consistent with the previous findings (Bei & Chiao, 2001; Nisbett & Ross, 1980). That is to say that the price of a particular brand is a very critical aspect, which the customers of specific brands enjoy. Price tends to enhance the value and meaning of a product, along with distinguishing its brand from its competitors. Buyers usually assume that there is a positive relationship between the price and the perceived quality, as they compare the price of a specific product with that of the other alternatives in the market (Collins-Dodd & Lindley, 2003). The higher priced brand is perceived, by the customers, to be a better, premium quality product, as compared to a lower price alternative product (Rao & Monroe, 1989; Zeithaml, 1988).

The price and brand loyalty demonstrate a strong positive relationship with each other and are found to be significant (p value < 0.05). Loyalty is defined as an essential variable of segmentation, and a crucial element of long term brand viability (Delgado & Luis, 2001). The Purchase quantity decision, and brand choice decision are two decisions that lead to the ultimate brand purchase decision (Krishnamurthi & Raj, 1991). The traditional view point suggests that loyal customers of a specific brand will always be price insensitive. The relationship between loyalty and price sensitivity is inseparable, i.e., there is a direct relationship between these two variables. Regardless of the price, the loyal customers will choose their preferred brand more often because of strong its brand attributes. Non loyal customers will be expected to behave in the opposite manner when it comes to making choices in decision making (Chaudhuri, 1999; Gounaris & Stathakopoulos, 2004).

According to the results, promotion and brand image showed a significant and positive relationship with each other (p value<0.05). As advertising has drastically increased over the years, in today's era, it is presumed that brand image is a deliberate asset for organizations. In order to break this image, companies should consider different promotional strategies so as to attract and establish the brand image in the consumer's subconscious mind (Villarejo & Sanchez, 2005; Wu, Yeh & Hsiao, 2011). This is critical because strategic business asset such as brands have gained importance over the course of the past years. According to Aaker (1996), the high value brands aid the companies in terms of the competitive advantage that they offer. Several past researches also support the relationship between promotion and brand image (Montaner & Pina, 2011; Villarejo & Sanchez, 2005).

Promotion and perceived quality also showed a positive relationship with each other. Brands attain recognition through marketing communication and advertising, as these are their core promotional mechanisms in the consumer market (Villarejo & Sanchez, 2005). Promotion is one of the strategic external indicators of product quality (Dew & Huebner, 1994). The relationship between promotional activities and quality has not only been observed in perceived quality of the brands, but also proved to be significant in the purchase decision in terms of actively increasing the value of product (Nandan, 2005).

Promotion and brand loyalty showed a highly significant (p – value <0.05) positive relationship which primarily indicates that the promotional and communicational activities play a vital role in creating brand loyalty along with positive brand equity. This relationship is also justified by different studies which were conducted previously, and revealed similar results (Casaló, Flavián & Guinalíu, 2010; Gedenk & Neslin, 2000).

The relationship between brand equity and the perceived quality was found to be statistically significant, and this revelation is supported by other studies that were conducted previously (Aaker, 2009; Severi & Ling, 2013; Yoo, Donthu & Lee, 2000). Perceived quality plays a mediating role between the price, promotion and brand equity of a particular brand (Chi, Yeh & Yang, 2009).

The consumers bonding with the brands that they like to consume can be defined effectively as loyalty, happiness or love, and is primarily dependent on the amount of affection displayed towards a specific brand (Albert et al., 2008; Albert & Merunka, 2013; Batra, Ahuvia & Bagozzi, 2012; Carroll & Ahuvia, 2006; Kanga, A., 2015; Keh et al., 2007; Shimp & Madden, 1988; Thomson et al., 2005; Whang et al., 2004).

The relationship between brand image and brand loyalty, along with its affiliation with brand equity was found to be insignificant (p-value > .05). These results basically proved that brand image and brand loyalty cannot act as mediators in the proposed model.

Table 4: Hypotheses Results

		Standardized Estimates	Hypothesis	Significance
Price	→ Brand Image	0.373	H1 Accepted	**
Price	→ Perceived Quality	0.862	H2 Accepted	***
Price	→ Brand Loyalty	0.427	H3 Accepted	***
Promotion	→ Brand Image	0.216	H4 Accepted	***
Promotion	→ Perceived Quality	0.234	H5 Accepted	**
Promotion	→ Brand Loyalty	0.170	H6 Accepted	***
Brand Image	→ Brand Equity	0.105	H7 Rejected	Insignificant
Perceived Quality	→ Brand Equity	0.240	H8 Accepted	**
Brand Loyalty	→ Brand Equity	0.149	H9 Rejected	Insignificant

*** p<0.00, ** p<0.05

6. Mediation Results

The mediation results (table 5) were based on Baron & Kenny (1986) methodology. The results of the mediation hypothesis show that there is no mediation, as the direct route shows a significant relationship between promotion and brand image, while the indirect route shows an insignificant relationship between brand image and brand equity. The hypothesis which proposed the route from promotion to perceived quality to brand equity is, thus, partially accepted, as it shows significant results in both routes. There is no mediation as the direct route between price and brand equity is significant, while the indirect routes show insignificant results.

Table 5: Mediation Analysis

Variables	Direct Effect Without mediator (p- value)	Direct Effect with mediator (p- value)	Indirect Effect with mediator (p- value)	Final Results
Promotion to Brand Image to Brand Equity	0.013	0.021	0.310	No mediation
Promotion to Perceived quality to Brand Equity	0.013	0.012	0.041	Partial Mediation
Promotion to Brand loyalty to Brand Equity	0.013	0.015	0.129	No Mediation
Price to Brand Image to Brand Equity	0.021	0.211	0.143	No mediation
Price to Perceived quality to Brand Equity	0.021	0.073	0.112	No mediation
Price to Brand loyalty to Brand Equity	0.021	0.104	0.165	No mediation

*** $p<0.00$, ** $p<0.05$

7. Conclusions

The findings of the study suggest that price and promotion have a significant impact on brand equity. It is therefore concluded that brand image has no mediation effect in terms of the promotion to brand equity. This was also identified from the direct effects, as there was a significant relationship, whereas on the other hand, the indirect effect confirms a negative relationship. Results revealed that there is a significant relationship between the paths of promotion, starting from the perceived quality to brand equity. Moreover, brand loyalty is found not to be a mediator between promotion and brand equity, since the direct route shows a significant relationship between the two, however, the indirect route shows an insignificant relationship.

This study offers many managerial suggestions and points to ponder for the service oriented businesses and corporations. Brand equity serves as a valuable tool for evaluating the marketing activities of companies. This particular evaluation will assist its audience in getting valuable feedback from the customers and in return benefit in terms of the problems that they identify in relation to the services that they provide and their advertising and marketing endeavors. This systematic approach provides a pathway for the managers to establish and exercise mechanisms of brand equity, and consequently gauge the effectiveness of their branding strategies (Ishaq, Hussain, Asim & Cheema, 2014).

In order to strengthen the brand image and loyalty, the brand image plays through the various marketing activities that are undertaken to get the brand to resonate in the minds of the consumers. Due to strong brand awareness, the managers are forced to increase their service quality and consumer satisfaction, which as a result, increases their positive brand reputation, brand loyalty and overall profitability of the organization.

It must be noted that the research experienced a few limitations. This research does not include all the variables present in the marketing mix. The other variables, including the place, product and placement, if considered, will certainly offer a greater insight into the topic. One of the most significant flaws in this research is that it emphasizes only on one sector of Pakistan's service industry, i.e. the restaurant and hotel industry. Also, future studies can further test the relationship between brand equity and brand love through sequential mediation analysis of this model.

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Appendix

Table 1: Construct Definitions

Constructs	Operational Definition	References
Price	Price is the value at which the restaurant service is consumed (Al-Dmour et al. (2013)). The research will measure the importance a customer gives to brand equity on the basis of his willingness to pay. Four items have been extracted from the literature.	Yoo et al. (2000)
Promotion	Promotion is the act of transforming the message of the product strategy to the target market, using all the available tools- including communication mix- by the marketer (Al-Dmour et al. (2013)). 6 items were selected to measure promotion.	Yoo et al. (2000)
Brand image	Brand image can be defined as the impression made up of a product or brand by a customer (Keller (2008)). 7 factors selected from the previous study.	Kim & Kim (2005)
Brand loyalty	The study measures brand loyalty as a customer's preference for a certain brand over other brands, Aaker (1991). This variable is measured using 10 items from the study.	Kim & Kim (2005)
Perceived quality	Perceived quality is the consumer's perception about a product's overall quality and supremacy, Zeithaml (1988). This variable is measured using 10 items from the study.	Kim & Kim (2005)
Brand Equity	Aaker (1991), defines brand equity as "a set of brand assets and liabilities connected to a band, name and its symbol that add to or subtract from the value provided by a product or service to a firm". 4 items selected for measurement.	Yoo & Donthu (1997)

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