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Editorial Note

Business Management is an evolving subject influenced by the emerging trends, transforming world societies, and developing economic structures. Understanding these changes to adapt them in the real world's business practice is a challenging task and requires an extensive research work. Businesses today spend a myriad on research & development to enhance their business systems, however, as business operations involve the human factor and decision making, the results of many research studies divulge the findings, which are somehow erratic in nature. To overcome this issue, researchers today not only need to observe and theorise these observations, but need to delve into the research subjects to find more precise, and predictable results. The changing business trends and fast evolving structures bring forth a need to adopt newest research methods for better precision and accurate results. Engagement with research subject to extract research experiences could be a remedy for this issue.

To foster research experience, researchers have to involve themselves into the business systems. However, the gap between the industry and academia limits the possibility of research experience to flourish. To improve the existing research norms and cultivate research tradition, especially in developing economies, there persists a dire need to link industry and academia. These collaborations could prove to be beneficial as academic researchers are primarily focused on creating new knowledge and businesses are focused on capturing this valuable knowledge. Strengthening these collaborations would support innovations in industries, and also enable industrial relevance in academic research.

This current edition of Journal of Business Strategies includes stimulating articles from scholars and students, entailing researches from diversified business management subjects. In spite of limited research resource availability and many challenges faced by researchers in developing economies, the innovative research topics and their findings, included in this journal, prove that research in Pakistan is thriving and, a promising research embracing society is foreseeable in the near future.

I would also congratulate JBS community for acquiring e-ISSN for the

journal. We are striving hard to enhance our journal quality, by introducing JBS accessibility in International platforms, through global databases and technological content. We are determined to enhance the discovery, sharing and management of our content to make it accessible to all, to appreciate the academic scholarship.

On a final note, I would like to thank our Board, faculty advisors and JBS publishing team for their guidance and support, to make our journal possible. My special thanks to the reviewers for their commitment towards increasing the quality and presentation of research in the journal. I am deeply indebted to all of them for their dedicated efforts and time that they have invested into improving the journal and helping JBS to strive for academic excellence.

Sadia Khurram

Editor

Journal of Business Strategies

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IMPACT OF SOCIAL NETWORKING SITES ON CONSUMER PURCHASE INTENTION: AN ANALYSIS OF RESTAURANTS IN KARACHI

Hafsa Abdul Hafeez, Dr. Amir Manzoor and Dr. Faryal Salman

ABSTRACT

Social networking sites (SNS) have become an integral element, of the daily lives, of a large number of youth around the globe. These sites are not only used for socialization. Marketers have also found that these sites can be tremendously beneficial for them to market their product and services and influence consumer purchase decision. The aim of this study was to analyze the impact of SNS on the consumer purchase intention of young customers of restaurants in Karachi. A self-administered questionnaire was administered to a sample of 500 respondents. The results of regression analysis revealed that information search, user experience, and eWOM communication on SNS significantly and positively influences consumer purchase intention. This study provides several implications for marketers. An increasing number of youngsters are using SNS and companies are embracing SNS in order gain better understanding of what the customers want. Marketers using SNS for marketing their products need to pay more attention to understand how they can utilize a better customer experience on SNS, make information search easier, and utilize eWOM communication effectively to better market their products.

Keywords: *Social Network Sites, Reviews/Feedback, Consumer purchase behavior/decision, eWoM, Information Search, and Experience.*

INTRODUCTION

Now a day, shopping has become more of a recreational activity that people perform to fulfill their material needs. Shopping today has become a play where the customer is at the center stage and is involved in the decision process and the shopping experience. The quick developments in online social networking have changed the way various purchasers associate with each other and the different brands and organizations. This

change in the association has resulted in changes in the way consumers make purchase decisions (Leung, Bai, & Stahura, 2015). Previously, marketers relied on publicity messages and used mass communication media with the expectation to inform buyers and build a favorable inclination towards their brands. Marketers also used mass media to publicize their products/services. Conventional media, such as TV, was heavily used to broadcast publicity information to a large number of consumers. One particular disadvantage of these conventional media channels was that it put consumers in a passive mode where they only absorb the information presented to them. They were not able to analyze the information presented. As such, this information provided them a little help in their purchase decision. While this marketing technique worked in the era of mass marketing, it has lost its worth in the modern world where consumers have access to large sources of information including social media. Online social networking sites have brought fundamental changes in the ways consumers select, share and evaluate data. With the coming of online networking, old-fashioned media, for example, TV and newspapers have lost a significant portion of their regular viewers and their impact as a marketing channel has become much less significant. Advertisers have quickly realized the power of online social media to gather intelligence regarding customer segments, shopping habits, and unlimited customer data (Chandra, Goswami, & Chouhan, 2013; Hampton, Lee, & Her, 2011).

As such, marketers are increasing their online marketing budget with special emphasis on online social networking marketing. According to an estimate, advertisers around the globe were expected to spend \$23.68 billion on paid media to reach consumers on social networks in 2015. That amount was 33.5% more than the amount spent in 2014. It was expected that, by 2017, the amount spent on social network ad spending would reach \$35.98 billion. That would equate to 16 % amount spent globally on all kinds of digital ads (Duffett, 2015). Besides, the Middle East and Africa regions were expected to spend the most on social networking ads in 2014 (Leeflang, Verhoef, Dahlström, & Freundt, 2014). The B2C electronic commerce was expected to reach \$1.5 trillion in 2014 with larger developments taking place in developing markets (Miyatake, Nemoto, Nakaharai, & Hayashi, 2016). Recent statistics show that Facebook is the dominant social networking platform. More and more people are using Facebook to socialize as well as to seek peer recommendations e.g. in

making purchase decisions. In Karachi, this trend has also taken its roots and an increasing number of people, especially youth, turn to social media to gather information e.g. when deciding which restaurant to dine in. The online orders for food are increasing because people find it more convenient, economical, and speedy to order food online. The increasing use of social media makes it more probable that consumers would shop from the businesses with which they have established close acquaintance online. Many researchers have found that electronic word of mouth (EWOM) significantly influences consumer purchase decision. For example, Hu, Liu, and Zhang (2008) found a strong positive link between eWOM and items purchased online by consumers. Investigating various prevalent motives, facilitators and barriers affecting purchase decision-making towards products, PADMAVATHI (2015) found that increasing number of online product analyses increased consumer's intention to buy the item.

Many researchers have concentrated on the use of social networking sites in purchase decisions. Studying the motives of individuals to connect with others on social networks, Ouwerkerk and Johnson (2016) found that there could be both positive and negative motives for individuals to socialize and connect with others on social media. Auker (2011) found that organizations use online social networking to build exclusive client relationships, expand their market, enhance their market reputation, and generate sales leads. Besides, online social networking sites are also being used for marketing research by organizations (Casteleyn, Mottart, & Rutten, 2009). Furthermore, clients get to explore organizations and brands via web-based social networking sites (Miller & Lammas, 2010; Wang, Chen, & Liang, 2011). In today's world, millions of youth invest a significant amount of their time on using these social networking sites and marketers have started to use these sites to build consumer communities around their brands and companies (Pate & Adams, 2013). According to Zhang (2013), consumers spend, on average, 3, 5 and 6 hours daily on Google, YouTube, and Facebook respectively. With increasing number of users on social networking sites, retailers are anticipated to increase their advertising spending on social media sites. The young generation is more comfortable with these digital formats. As such, the impact of these social networking sites on buying behavior of youth is very important when an organization decides to choose marketing on social media. Social networking sites can provide businesses a new set of marketing promotion tools and new ways to engage with the contemporary social world of their customers. Social

networking sites have become so important because of youth's need of constant connection with their friends and the world (Pate & Adams, 2013). The ad spending on Facebook increased from US\$1.87 billion to US\$ 3.15 billion in 2010. Google search continues to play a very important role in affecting the buying behavior of youth (Gangadharbatla, 2008).

The purpose of this research was to identify the factors of SNS that influence the young generation buying behavior. The examination is vital given that SNS use is increasing at an exponential rate and organizations/ brands are more actively making efforts to connect with their customers through this medium of communication. This research is going to help both the marketers and researchers. It would lead towards findings of the areas that really affect the buying intentions of youth in Karachi. Furthermore, this research especially focuses on the analysis of the restaurants of Karachi and how the SNS reviews about restaurants may shape the youth choice of a restaurant.

LITERATURE REVIEW

Social Media and Marketing

Web 2.0 refers to the change in the way web page are designed and used. Social media sites are examples of web 2.0 technologies (Kaplan & Haenlein, 2010). Web marketing or Internet marketing is an umbrella term that refers to the utilization of Internet for various marketing purposes. Erdoğan and Cicek (2012) suggests that social media marketing is a process of empowering individuals to market their products/services through online social media channels, to interact with larger communities, and expand market reach. Karjaluo and Jayawardhena (2012) found that the role of digital channels such as social media has increased over the years to support the traditional offline marketing objectives. Social media marketing is different due to various reasons (Järvinen, Tollinen, Karjaluo, & Jayawardhena, 2012). One reason is that social media marketing has many components that make it different from other marketing channels. It provides wider personal communication opportunities that marketers can use to attract a large number of audiences. It is a very important aspect because traditional marketing communication may not provide that level of personalized communication and can be very costly (Weinberg, 2009; Smith & Zook, 2011; Isbister, 2013)

SNS and Consumer Purchase Decision

SNS provides consumers opportunities to interact with other people.

According to Ellison (2007), the uniqueness of social network sites comes from the fact that SNS enable users to articulate and make visible their social networks. With this visibility of social network, users can build connections that would otherwise not be made. However, this is not often the goal of social networking sites and that connections often involve some latent ties or offline connections among the people (Safko, 2010).

Consumers are the marketplace actors who purchase or consume products and services. However, there is a slight difference between the buyer and consumer. Buyers may or may not consume the product for ultimate use while the consumer purchases the products for ultimate use (Sterthal & Craig, 1982). Many times, businesses are unable to deliver their message to their consumers and prospects knowing that their consumers and prospects are facing significant difficulties in their decision process. Today, the decision-making process of a consumer is significantly influenced by the accessibility and transparency of information. In this context, Silverman (2001) provides a comprehensive model, which attempts to capture the critical aspects of individuals' consumption behavior. This model interprets consumer behavior into five stages – 1) Problem recognition, 2) search of information, 3) evaluation of alternatives, 4) final decision, and 5) post-purchase decisions. Problem recognition takes place whenever a consumer recognizes a significant difference between the desired and the actual state of affairs, which is of sufficient magnitude to arouse and activate the decision process. In information search stage, prospects have a certain interest in a product or service and then they identify available options, study information of selected options, and eventually judge which of these options can most likely deliver the best outcome. Once an option is identified as the best/suitable solution according to the individual's needs after accumulating sufficient information, they undertake the alternative evaluation. In the evaluation stage, consumers form their preferences among the product choices available. Two factors can interfere with the purchase intention and purchase decision. The first factor is the attitude of others and the second factor is unexpected situational conditions. The attitude of others means how much a person's preference towards a particular product is affected by another person's negative attitude towards this preferred product. This may result in the readjustment of the preference formed. Similarly, consumers preferences are also influenced by other people published evaluations of the preferred alternative. Once

the product or service is consumed, the consumer reviews his/her level of dissatisfaction with the product and service and evaluates the criteria used to choose this product/service in the product selection stage.

Information Search. The limited capacity of human beings have to process information can affect the various components of decision process such as information search. Many factors (such as the perceived costs of analyzing information) can affect when information search should be stopped. There are other factors as well e.g. information availability and information value. Individuals are generally not actively searching for information. In this case, advertising may lead to a goal reordering. By identifying the most commonly used channels/platforms marketers can better understand the source and type of information consumers are actually exposed to. Due to democratic and neutral nature of content on social media, consumers are increasingly turning to social media to search information and make purchase decisions. Understanding of consumer search behavior has long been a focus of researchers. Recently, social search, i.e., collecting information from peers, has gained a lot of attention partly due to easy access to data on from such platforms as Facebook and Twitter (Godes et al., 2005; Chan, Lei, Leong, Ng, & Wong, 2016). Therefore, we hypothesize that:

H₁: Information search about the particular restaurant in Karachi significantly influences consumer purchase decision.

Electronic Word of Mouth (e-WOM Communications) Amongst Consumers. On social media, the prime objective of marketers is to build consumer communities, generate discussion around these communities about the brands, and to spread these discussions. Customer reviews are one of the significant areas of social media. These reviews are widely available for products and services. These reviews generate significant value for both consumers and companies and companies continue to encourage customers to rate and review products and services on social media platforms (Godes et al., 2005). These activities produce electronic word of mouth (eWOM) and when provided through social media can help consumers in their purchasing decisions (Chen, Fay, & Wang, 2011). Online customer reviews have grown quickly and many companies (e.g. Amazon) are actively using these reviews to boost the sales of their products and services. Online communities are another form of social media that are now being used to share information and knowledge about

products and services (Holleschovsky & Constantinides, 2016). Potential consumers are also using recommendations as another tool to help them make the purchase decision. According to Nielsen, Spertus, and Drobychev (2010), potential consumers prefer other users' recommendations over product information provided by companies. As such, these interactions enabled through social media can boost consumer trust and reduced level of perceived risk.

In the phase of information acquisition, many external and internal source of information can influence consumers. Internal sources of information are previous users of product/service who are able to influence potential consumers by spreading word-of-mouth and function as role models (Silverman, 2001; Rehman, Ilyas, Nawaz, & Hyder, 2014). Word of mouth involves no cost, is self-generating and self-contained. Word of mouth can be spread through social media at a very fast space. According to Silverman (2001), individuals like to review products or services and engage in word of mouth and that's the reason customer review have becomes particularly important and word of mouth has become an attribute of a product. Delivery of word-of-mouth can make the purchase decision easier. Word-of-mouth removes confusion and improves the credibility of information (Silverman 2001; Holleschovsky & Constantinides, 2016). The Social Web has significantly altered people ability to gather unbiased information and to seek information from others about actual experiences both before and after purchase. Therefore, we hypothesize that:

H₂: Electronic word of mouth about the restaurants of Karachi significantly impacts consumer purchase decision.

Consumer Experience and its Role in Purchase Decision. There exist many theories that attempt to explain the role of the consumer experience in consumer purchase decision. Online shopping can be viewed as an effort to reduce uncertainty. Developed by Berger and Calabrese, Uncertainty Reduction Theory (URT) clarifies how communication among people is used to develop understanding by picking up information (Berger & Calabrese, 1975, Berger & Calabrese, 1982). According to this theory, people (known as "data seekers") accumulate significant data that permits them to foresee a state of mind or behavior. In relationship development, this reduction of uncertainty is particularly important. When people ask other acquaintances about their experiences with a particular product, they are actively seeking information, which requires the potential buyer to

make some effort on his/her own behalf (Brumfield, 2008; Park & Kim, 2016). Many times, this kind of information is the only information potential consumers seek. This is different from an offline world, where consumers generally have an offline relationship with the person whose experience with a particular product they would like to know. As such, they already have an assessment of that individual's trustworthiness, competency and the degree of confluence between the information provider's needs and those of the potential consumer. In online environments, potential consumers do not need to make great efforts to reduce uncertainty. This is because they can gain considerable information about experiences of others by reviewing information available online product review platforms. While the effort required of a consumer to get information is lower, the effort required to process that information is often higher. Researchers have found that on SNS, potential consumers often adopt passive information seeking strategies because it is easy to gather information from SNS profiles unobtrusively and because connections to the target's friends are visible, allowing for easier access to this social network (Antheunis, Valkenburg, & Peter, 2010; Hu et al., 2008). Therefore, we hypothesize that:

H₃: Consumer experience significantly influences the consumer purchase decision about the restaurants of Karachi.

Social Networking Sites (SNS) as a forum for consumer feedback. Social networking sites are helpful in fulfilling communication needs and wants. People can use them as a convenient method of communication and stay connected with friends and family (Urista, Dong, & Day, 2009). Users have tight control of their interaction schedule where they can decide when they want to read and respond to particular content. The Internet communication, in general, is an individual activity but due to its one-to-many communication methodology, it is more efficient. It is also easy for users to quickly spread the information. The virtual communication provided by social media sites can fulfill many needs and wants of consumers. This virtual communication is a convenient method of communication that users can use to stay connected with their family and friends on a schedule of their own (Urista, Dong, & Day, 2009). Social media is a highly efficient method of communication because users can quickly and widely disseminate information. Social media is a widely used method of communication amongst youngsters (Pookulangara & Koesler, 2011). There are multiple gratifications associated with the use of social media. Information exchange

is one such gratification. For example, Facebook is also used for the social search. In social search, people are looking for information regarding individuals they have met offline (Schivinski & Dabrowski, 2016; Urista, Dong, & Day, 2009; Miller & Lammas, 2010). Many times people derive satisfaction from browsing other people's social network. One benefit they could possibly derive from this is to know their friends and their profile content (Shang, Wu, & Sie, 2017). People may derive some positive psychological benefits by consuming such social information. For example, people may gain a feeling of socially involved in a large group of people. Many times this consumption of social information is merely for meaningless gossip about other people's profiles but none the less it is still one of the gratifications of social media use (Constantinides & Fountain, 2008). Social media is also considered as an effective way of disseminating practical information to many people simultaneously (Urista, Dong, and Day, 2009). One example of this practical information shared in Facebook is significant life events. Reviews and user-generated content (such as rating of a movie) involve a high degree of personal taste and subjectivity to users. Trust is the overriding attribute that makes these Reviews and user-generated content very influential in consumers' purchasing decision (Silverman 2001). According to Miller and Lammas (2010), individuals tend to trust these contents to filter, distil, and objectively evaluate the mound of information. Therefore, we hypothesize:

H4: SNS feedback and reviews about the restaurants of Karachi significantly influence consumer purchase decision.

CONCEPTUAL FRAMEWORK

Based on the literature review and hypotheses, this study developed the conceptual model as shown in figure 1. The conceptual model includes four independent variables (namely SNS site feedback, EWOM communication, Consumer Experience, and Information search) and one dependent variable (namely consumer purchase intention).

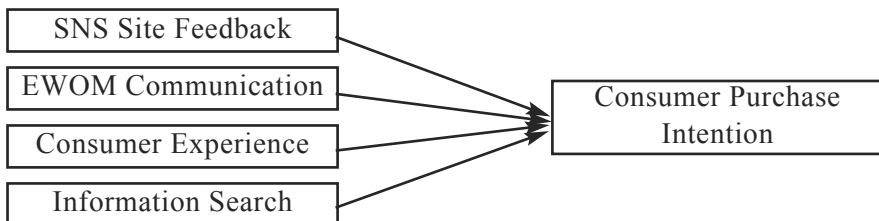


Figure 1. Conceptual Framework

RESEARCH METHODOLOGY

Sample Design

For this study, a self-administered questionnaire was designed for the survey purpose. The study was cross-sectional in nature. The target population was both male and female living in Karachi in the age group of 20-50 who dined in the restaurants of Karachi. The sample size of the research was 500. Convenience non-probability sampling method was used to select survey respondents. The research design was quantitative and data was collected through an online survey. Out of 500 respondents invited to fill out the survey, 304 completely filled and usable questionnaires were received. Therefore, a response rate of 61% was achieved. Table 1 shows the demographics of the survey respondents.

Table 1. Respondents Demographics

Gender	Male (41.8%)
	Female (58.2 %)
Education	Matriculation (7.5%)
	Intermediate (8%)
	Undergraduate (34.2%)
	Graduate (29.6%)
	Postgraduate (20.7%)
Age	15-20 years (22.4%)
	20-30 Years (65.8%)
	Above 30 years (11.8%)
Monthly Earning	Less than 10,000 (12.8%)
	10,000-30,000 (17.1%)
	30,000-50,000 (14.5%)
	Above 50,000 (13.8%)
	No earning (41.8%)

Research Instrument

The research instrument developed contained five variables (or constructs) namely Social Network Sites feedback/reviews (SNSF), Information Search (IS), Electronic word of mouth (EWOM), Experience (EXP) and Consumer Purchase Decision (CPD). Table 2 summarizes the constructs and their respective sources.

Table 2. Constructs and their sources

Constructs	No. of Items	Source
Social Network Sites Feedback (SNSF)	5	Silverman (2001), Lee (2013)
Information Search (IS)	5	Silverman (2001), Lee (2013)
Electronic Word of Mouth (EWOM) Communication	2	Constantinides and Fountain (2008)
Experience (EXP)	1	Constantinides and Fountain (2008)
Consumer Purchase Decision (CPD)	2	Lee (2013)

The questionnaire's first section sought data on consumer demographics (such as Gender, Education, Age, and Monthly earning). The second section contained 15 research questions related to the objectives of this study. The first five questions were related to social network sites feedback and how/why they affect the consumer purchase decision. On the other hand, it was also needed to find that how often do the particular customers read the reviews and feedback of the restaurants in Karachi and do they always read the reviews of the new restaurant before trying. "You often read the reviews before ordering the food from any restaurant" was one of the questions asked. The questionnaire was based on a 5-point Likert scale starting with "1 = Strongly Disagree" to "5 =Strongly Disagree".

RESULTS

Reliability and Validity Analysis

SPSS V22 was used for data analysis. In order to ensure the validity of the research, the questionnaire was pilot tested, so that to refine the questionnaire and to assure respondents will not encounter problems in answering the questions. Before sending the questionnaire to the targeted respondents, the researcher consulted with different professors of different universities including Bahria University and got their approval of the questionnaire. In addition, it was sent out to few people in order to get suggestions and comments for modifications.

In the next step of data analysis, the reliability of the research scale was checked using Cronbach's alpha. The value of Cronbach's alpha for the overall questionnaire was 0.847 that showed a high level of internal consistency for our scale with this specific sample. The values of 'Squared Multiple Correlation' were examined to see if removal of any item from scale could provide an improvement in the reliability of the scale. Only one

item (i.e. IS4) had a very small value of ‘Squared Multiple Correlation’ equal to 0.083. However, if this item was removed, the possible improvement in the Cronbach’s alpha of scale was only 0.005. Therefore, we decided to keep the research scale intact for further examination.

Correlation and Regression Analysis

In the second step of data analysis, a correlation analysis and a multiple regression analysis was performed. The correlation coefficient between consumer purchase intention and EWOM was 0.461 with $p = 0.000$. That depicted a significant positive relationship between these two. The correlation coefficient between consumer purchase intention and customer experience was 0.424 with $p = 0.000$. That depicted a significant positive relationship between these two. The correlation coefficient between consumer purchase intention and information search was 0.508 with $p = 0.000$. That depicted a significant positive relationship between these two. The correlation coefficient between consumer purchase intention and SNS reviews and feedback was 0.467 with $p = 0.000$. That depicted a significant positive relationship between these two. A multiple linear regression analysis was performed to predict CPD (Dependent variable) based on SNSF, EXP, and EWOM and IS (Predictors). A significant regression equation was found ($F(4,297) = 42.371, p < .000b$, with an R^2 of 0.355. The predicted CPD was equal to $.355 + [.206 + .139 + .322 + .170]$ (SNSF, EXP, EWOM, IS measures). CPD when SNSF, EXP, EWOM, IS are measured in different criteria. Average CPD increased 0.837 ($.206 + .139 + .322 + .170$) for each predictor (i.e. SNSF, EXP, EWOM and IS) respectively. Table 3 provides the regression coefficients.

Table 3. Coefficients

Model		Coefficients						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.355	.239		1.488	.138		
	EWOM	.206	.056	.204	3.670	.000	.693	1.443
	EXP	.139	.044	.170	3.144	.002	.737	1.356
	IS	.322	.082	.241	3.949	.000	.577	1.733
	SNSF	.170	.063	.161	2.687	.008	.599	1.670

DISCUSSION

This research was conducted to analyze how the SNS reviews about the restaurants of Karachi really affect the consumer purchasing behavior. It also highlighted the relationship among the consumer purchase decision

and the other variables like the experience of the consumers, information search about the restaurant and the electronic word of mouth regarding the particular restaurant outlet of Karachi.

This study found that consumer purchase decision was significantly and positively impacted by information search. This finding is in accordance with previous studies (Chan, Lei, Leong, Ng, & Wong, 2016; Shang, Wu, & Sie, 2017; Silverman, 2001). Silverman (2001) indicated that information search plays a strong and significant role while making the purchase decision. Shang, Wu, and Sie (2017) also recognized that information search plays an important role in consumer purchase decision.

This study found that EWOM communication significantly and positively impacted consumer purchase decision. This finding is in line with previous studies (Godes et al., 2005; Chen et al., 2011; Erkan & Evans, 2016; Holleschovsky & Constantinides, 2016) that found a significant relationship between EWOM communication and the consumer purchase decision. Godes et al. (2005), Chen et al. (2011) and Erkan and Evans (2016) argued that in today's world where social media networks are the easiest and convenient way to communicate with each other; the electronic word of mouth plays a significant role in shaping consumer choices. People can easily communicate and widely disseminate their different opinions and experiences through electronic word of mouth. Businesses also need to maintain their reputation by satisfying consumer needs and encouraging them to spread positive EWOM about them.

Consumer purchase decision and consumer experience were also significantly and positively linked to each other. The finding is in line with the findings of previous studies (Constantinides & Fountain 2008; Park & Kim, 2016). According to Constantinides and Fountain (2008), the experience is the key to getting to favorable consumer purchase decision. The different sites that provide reviews of various food service providers share the information of the restaurant outlets and food based on consumer experiences. Park and Kim, (2016) provide further support to this idea by suggesting that past consumer experience can help shape consumer purchase decision.

Lastly, this study found that consumer purchase decision is positively and significantly impacted by social network sites feedback and reviews. This finding was supported by the findings of previous studies (Urista et

al., 2009; Ellison, 2007; Schivinski & Dabrowski, 2016). This means that the social network sites reviews and feedback about the particular restaurant outlet in Karachi do affect the consumer purchase decision. According to Urista et al. (2009) and Ellison (2007), the youth mostly spend the majority of their time on the social network sites. As such, it makes sense that youngster purchase decision is significantly affected by feedback and reviews on SNS. This finding is in line with the findings of Schivinski and Dabrowski (2016) who found that young customers attached significant values to the feedback on SNS while making a purchase decision. On the other hand, it is very much possible that the loyal customers do not care about the different positive/negative reviews, and continue to order the food from the same food outlet because it does satisfy their needs (such as taste). However, foods outlets cannot solely rely on these brand loyal customers. They must take into account the relationship between SNS reviews and consumer purchase decision in order come up with appropriate strategies to expand their market base.

CONCLUSION

The objective of this study was to understand the aspects of SNS that affect the online consumer purchasing behavior. This study found that different factors of SNS do affect consumers' purchase decision. Consumers utilize online social networking sites to have discussions and build relationships. This study found that the effect of social network sites reviews on the consumer purchase decision is significant and positive. Repeatedly, researchers have demonstrated that purchasers utilize online social networking to connect with family and companions and seek others experiences and reviews about different products and services. Today, consumers have become more skeptical about companies and they carefully develop their spending plans. Thus, it is very improbable that organizations can possibly influence consumer purchase decision by just having the presence of their companies and brands on online social media sites such as Facebook and other social network sites like Instagram, LinkedIn etc. Most importantly, online social media sites are not principally about driving deals or affecting consumer's choices. A company tied up in such an approach will be in a state of disillusion. The company's social media presence should be about making passionate consumer communities through positive engagements with the consumer and involving them in healthy and active discussions. This would help build a community of loyal customers that in turn can help increase business.

RECOMMENDATIONS

The results of this study demonstrate that information search about a particular restaurant and eWOM significantly influences consumer's purchase decision. However, it is not necessary that every single time the reviews about the restaurant, either positive or negative, will affect the consumer purchase decision. This is because the loyal consumer will continue purchasing from the restaurant, which has the bad reviews too on social network sites (Rassega, Carlo, Valentina, Antonio, & Nicola, 2015). However, restaurants should not rely only on their brand strength among loyal customers but also focus on their reputation among other customers. This would be very important in increasing their market reach and extend their loyal customer base. The results of this study provide significant implications for the marketers looking to promote the products in the food sector. This sector is sensitive and especially in developing countries such as Pakistan, a negative EWOM can quickly destroy the established reputation of any food service provider. Marketers can use the results of this study to further enhance their understanding of consumer purchase decision, They can develop a granular understanding of the consumer's habits of information sharing on social media and how this information sharing pattern can be utilized to develop better marketing campaigns for food service companies. Marketers should come up with better strategies to build consumer communities and consumer engagement on social media. This community building and consumer engagement can help build stronger brands. This could also provide marketers an efficient and cost-effective way to market their products of food service providers. It is also important to note that youngsters may not have the purchasing power but they can act as very strong purchase influencers. As such, marketers need to pay special attention to understand the way youth use social media and share information on social media. A good understanding of the process of their opinion formation on social media can help marketers find ways to influence the actual purchasers in the food sector. This can also help marketers come up with better approaches to developing compelling advertisements.

LIMITATIONS AND AREAS OF FUTURE RESEARCH

Every study has certain limitations and this study is no exception. For instance, the findings of this study may not be completely generalizable because the data was gathered from the participants from Karachi only. It is possible that the results are applicable to other cities that share similar

demographic patterns but may not be applicable to other smaller cities. Future studies could consider a comparative study among different cities. Another limitation is that the sample was collected from the young generation of Karachi only and the adult population was not considered. The sample was a mixture of employed and unemployed youngsters and as such, the results of this study may not be the representation of the whole population. The present research suggests that youngsters consider eWOM, Information search, experience and SNS reviews important in their purchase decision. It is possible that the factors important for youngsters differ from factors important for more mature consumers. A comparative study between young and mature consumers could be an interesting topic for future studies. Future studies can also take into account variables other than eWOM, Information search, experience, and SNS reviews to provide deeper insight into consumer choices for foodservice marketers. The inclusion of more social benefit factors, such as a desire for reference group influence, sense of belonging or interconnectivity, may be necessary to assess eWOM intentions (Willemsen, Neijens, & Bronner, 2013). In addition, gender differences in eWOM, information search, SNS reviews, consumer purchase decision, and experience could be meaningful, perhaps women are more likely to use social media and have a higher intention to engage in eWOM than men. Finally, future studies could identify eWOM intentions in various food service segments.

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EFFECT OF VISUAL MERCHANDISING ELEMENTS OF RETAIL STORE ON CONSUMER ATTENTION

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ABSTRACT

The main purpose of the study was to determine how visual merchandising influences consumer attention. Visual Merchandising is a technique to visually making the brand attractive and highlights the unique features of the store. Brands hire specialized marketers who focus on visually enhancing the brand and provide them with a good shopping experience in the stores. The study focuses on four important factors of visual merchandising and the hypotheses are based on these i.e. store layout, window display, color & lighting and store interior, and how it influences the attention of consumers. Nonprobability sampling technique was used to conduct this research and a structured questionnaire was designed to collect responses. 280 individual responses were collected with their contact details to have an authentic individual feedback. Since store layout had a negative but significant impact on gaining consumer attention, the hypothesis for store layout was rejected. The rest of the hypotheses for window display, color and lightning and store interior have been accepted that they have a positive and significant impact on consumer attention. The study concludes that marketers should focus on visual merchandising strategies for attracting customers and increase the footfall of store which may also lead to gain an edge over competitors.

Keywords: *Visual Merchandising, Retail store outlet, Consumer attention.*

INTRODUCTION

Visual attraction and communication have been considered vital components of retailing suggested by researchers and practitioners both (McGoldrick, 1990, 2002). Therefore, Visual Merchandising is an activity that is given interest in Retailing. In order to remain in the market and

achieve a competitive edge over the competitors, retailers are incorporating various differentiating strategies and techniques in their operations (Kerfoot, Davies, & Ward, 2003). Visual merchandising is one of those benefiting strategies that is considered as one of the determinants of success for a retail store. In visual merchandising the management ensures that both the exterior and interior of their store is appealing enough to attract the customers. Both the exterior and interior deem to have a major impact on consumers buying behavior and is observed to stimulate interest and desire to purchase them. This technique also helps in the selling of the right kind of the product to the right kind of customer by developing attraction and displaying products accordingly (Wanninayake & Randiwela, 2007).

Pegler (2011) stated in their paper that visual merchandising influence the psychological behavior of consumers by visually communicating the product to customers. One of the crucial factors in this regard is that the product and the message that Merchandiser is trying to communicate through visual merchandising is properly reaching out the customers or not. It's considered as one of the silent sales people in marketing and in a case of any flaw or miss communication the purchase behavior of consumers might get negatively influenced. Some primary factors that contribute in this regard are the selection of right color, lighting effects, shelving of the product etc. that as a whole enhance the impact of visual merchandising. These attributes that are an important component of visual merchandising increases the sales in the retail industry by attracting the consumers towards the products displayed. The primary job of this technique is to highlight all the differentiating elements of all the products in such a way that it not only attracts the customer but also communicate all the attributes of all the products effectively (Pegler, 2011).

The primary reason behind conducting this research is to analyze the influence that visual merchandising and its element on consumer attention. Brand name, window display, color and outlook of the store are some elements of the visual merchandising whose role in gaining consumer's attention would be specifically discussed in this research (Wanninayake & Randiwela, 2007).

SIGNIFICANCE OF THE STUDY

Visual merchandising is a major way of communicating with the customers. It has become an essential tool in today's era where marketers find new and innovative ways to grab the attention of customers. The key

elements of visual merchandising which contribute in attracting customers are window display, store layout, color & lighting and store design. This research paper will contribute to visual merchandising literature especially in the Pakistani retail context by analyzing and finding the influence of visual merchandising on gaining consumer attention in the local context of Pakistan.

LITERATURE REVIEW

Visual Merchandising

The quality of store atmospheric elements of the retail environment is considered to be part of visual merchandising (Kotler, 1974). Donovan and Rossiter (1982) extended the concept of store atmosphere by categorization of physical in-store variables such as store layout, architectural design, wall color and social factors such as how interaction takes place and behavior of people.

In general, Visual Merchandising has two major areas the store exterior and interior and other variety of factors like the color combination, lighting scheme, product placement, store layout and design, mannequin placement and props selection, furniture and fixtures). All these factors play an important role in creating a favorable shopping atmosphere (Law, Wong & Yip, 2012). For instance, Baker, Grewal, and Levy (1992) found how lighting and background music alter a consumer's perceptions and reactions to a store design. Similarly, Babin, Hardesty, and Suter (2003) found that the combination of colors and lighting has an important role in influencing the consumer purchase intention. Intangible store elements, such as scents or fragrance, can also stimulate one's emotional state and mental imagination (Fiore, Yah, & Yoh, 2000).

Matilla and Witz (2008) stated visual merchandising as a marketing technique in which the retailers enhances both the exterior and interior of their store in order to attract their target customers. It helps the retailers constructing a strong and positive image for their store as well as helps in generating the required amount of attention and desire among the consumer. They also explained that both the exterior and interior of the store must be in coordination with each in order to create a lasting impact and must be designed keeping in mind the target market of the store specifically. He further stated that this technique of visually making the brand attractive has proved to be extremely beneficial in connecting the target market with the brand by visually highlighting the distinctive and unique features of the store over the competitors. Chandon, Hutchinson,

Bradlow and Young (2009) highlighted that visual merchandising is one those in-store marketing tools that actually triggers unplanned buying among the consumers. In this technique, the marketers visually enhance their outlet by creating an aesthetic atmosphere, appropriate shelf arrangement, attractive window display, cleanliness etc.

In visual merchandising marketers' targets and influence all the five sense of human being that is sight, hearing, touch, smell and taste by determining the overall atmosphere of the store accordingly. This visually pleasant atmosphere of the store not only gathers the customer's attention but also helps in achieving a high level of sales for the store. However, it is not a single day process and the store management or marketer is required to continue upgrading their store's outlook as per the demands of their consumers and requirement of their products. The atmosphere must be such that it acts as the driving force behind the return of the customer towards the store. For this purpose, it is necessary that management design both the interior and exterior of the store as per their target market. Evaluation of consumer's perspective must be done on a continuous basis in order to incorporate all the changes that the target market wishes visualizes for their favorite store (Stanley, 2010).

Visual merchandising is basically a way of gaining consumers attraction by visually making the brand attractive for target customers. Retailers use this as a tool to grab consumers' attention by presenting the merchandise in such a manner that it will boost sales. Marketers use this technique to highlight the products & services for walk-in customers because it also plays a major role in impulse buying behavior.

Park, Jeon, and Sullivan (2014), discussed that the proper use of visual merchandising makes the retail brand differentiate to competing brands, establishes brand preference among consumers. Pillai, Iqbal, Umer, Maqbool, and Nunil (2011) found in their research that consumers do get influenced by attractive window displays, properly designed store layout, and overall appealing visual merchandising and companies can convert the potential visitors into actual buyers.

Color & Lighting as a stimulus In-store Visual Merchandising. Unexpectedly very little research can be found on how a store's principal color choice affects consumer reactions (Crowley, 1993). Baker et al. (1992) research in which they described how lighting and background music alter a consumer's perceptions and reactions to a store design. This research examines how color and lightening as variable combine, influence consumer attention.

Colors do have effects on human resource performance and cognitive interpretation that lead to creating desired consumer reactions (Jacobs & Suess, 1975; Babin et al., 2003). Crowley (1993) reviewed the literature and concluded that color has an influence on both consumers' evaluation (affective tone) and activation (arousal tone).

Research in the field of Retail has found these results consistent. The experimental research proposes that cool-colored in store settings are favored more over warm-colored store settings (Bellizi, Crowky, & Hasty, 1983; Crowley, 1993). Furthermore, in one of the experimental research where hypothetical television purchase suggested there can be a decrease in the likelihood of postponing the purchase decision in the case of blue background as compared to a red background (Bellizi & Hite, 1992). Hence, it is believed that violet/blue interior walls will generate a higher level of positive affective tone and increased purchase intentions than compared to darker tone like red/orange.

Lighting along with color has been tested in various experiments, in one of the research, it was revealed that as a classical music and soft lights combination signals consumers to expect pay higher prices (Baker, Grewal, & Levy 1992), lights also moderate color's effect. In an independent lighting research, it's suggested that bright fluorescent (soft) lights and warm (cool) colors are more used by discount stores (Baker, Grewal, & Levy 1992; Bellizi & Hite, 1992; Schlosser, 1998).

Color & Lighting and Consumer Attention. Consumer attention is a phenomenon which means bringing something to the notice of consumers. It is a reaction of consumers in return of the awareness a marketer provides in promoting his product or service.

The influence that colors and lighting of the store have on the consumer has been a topic of investigation among the researchers since the past few years. According to a research conducted by Olson (2005), it has been observed that both these components of visual merchandising greatly affect consumers' psychological behavior. It has been evaluated that the impact of cool colors such as blue and green are more attention gaining than the warm colors. It was further highlighted through the research that stores with red or yellow paints are considered negative and unappealing to consumers in contrast to the blue or green wall paints. However, Solomon, Gary, and Askegaard (2006) contradicted in this regard by stating that the preference of color for a store must be done keeping in mind the demand and the ongoing trend as it hugely attracts the customers.

Moreover, Aspfors (2010) firmly believes and has stated the significance of having appropriate lighting in the store numerous times in his research. Through the past researches, it has been observed that those stores that contain brighter lights are more attention gaining compared with the stores containing low lights. It is because of the simple fact that consumers can easily determine their desire product in bright light in comparison with the lower light. Even the minute details about the product such as the ingredient incorporated in its making and all the labels are important to consumers and can only be observed if proper lighting is provided to the customers.

Aspfors (2010) stated that lighting is necessary to grab the attention of the consumers and encourage them towards initiating the purchase. He further stated that it is the responsibility of the store management to ensure that the lighting of the store is such that it manages to create a pleasant and calming atmosphere for the customers as vision is one of those senses that facilitate the purchase process and hence, holds extreme significance in the visual merchandising technique.

Color and lighting are one of the important factors of visual merchandising retail setting. In light of all the previous research findings, color and lighting as a variable have been adopted to check how it affects consumer attention; hence following hypothesis has been created:

H₁: Color & lighting of the retail store have significant positive impact on consumer attention.

Store Layout as a stimulus In-store Visual Merchandising. The layout or outlook of the store holds a significant importance in a success of the outlet. It is the responsibility of management to make sure that store layout is done in such a way that finding the desired product is not difficult for customers. The entire outlook and ambiance of the store interior are said to be store layout in retail merchandising. Products placement and spacing of floor is an integral part of store layout and design. In an empirical study Garaus, Wagner, and Kummer (2015) stated that a good store layout increases the probability of consumers to stay longer in the store and enjoy the traffic free shopping experience. Aspfors (2010) highlighted that those products that are placed at a convenient position tend to generate more sales for the store than the products situation at a distant unfavorable position.

All the large stores make sure that the layout of their store is such that

it helps in generating large in-store traffic but minimize the need for an unnecessary motion for customers. The different types of store layout that are free flow, grid, race track, and spine layout. These entire store layouts help different type of business respectively. The free flow layout facilitates impulse buying and is usually observed in stores like Nike while grid layout is mostly practiced at grocery stores, retail outlets etc. as it has counters and shelves. One of the biggest advantages of this type of layout is that it's easily accessible for customers. The next in line that is race track layout facilitate a loop area where the exit and entrance are at the same end while lastly the spine layout has aisle starting from the front till the very end of the store and is usually adopted by retailers opening on a huge scale (Carpenter & Moore, 2006).

According to Grewel, Baker, Levy and Voss (2003), the selection of store layout must be done keeping in mind the requirement of the target market and products available while it should be able to stimulate impulse buying among the customers instantly. It should be that influential that customer unintentionally spends more money than they intend to. The layout must be such that it a customer entering the store conveniently finds all the goods required to him (Ebster & Garaus, 2011).

H₂: Store Layout of the retail store has significant positive impact on consumer attention.

Window Display as a stimulus In-store Visual Merchandising. It is the art of displaying the products in a manner that increases consumer attention. Marketers use this technique to increase footfall in store by exhibiting the products creatively. Good window display also leads to unplanned buying. Marketers also use this as a strategy to convey promotional messages to their consumers.

Razzouk, Seitz, and Chaudhuri (2001) contributed through his research by stating that there are numerous retailers out there offering the same kind of products to the consumers. However, the thing that differentiates one retailer from another is the way he exhibits his products that draw the attention of the customers. The window display is one of those attractive measures highlighted by Mopidevi and Lolla (2013). It is now being considered as one of the most used and beneficial ways of drawing customer's attention. Retailers are working hard in order to make their displays attractive and dynamic than their competitors as they have realized that it's one of those things that leave a positive impression on

their customers. They further explained in their research that the image of the store is built by its window display and whether the customer prefers to walk into the store or not highly depends on the display that is being put forward to him. Moreover, the display could easily portray anything that a retailer wishes his customers to observe such as any promotional or seasonal discount, new arrivals, sales etc. (Mopidevi & Lolla, 2013).

It is because of the increasing level of competition all around the world that competition in this industry is also rising alarmingly. In such situation providing customers with unique and distinctive window displays is the only mean through which retailers can keep up the attention of consumers (Mehta & Chugan, 2013). Surprisingly, it has been observed that window displays can play a lot major role than traditional advertising methods. Furthermore, retailers can target the right kind of customers through this way by displaying according to the perception of their target market. Moreover, this also helps the customers as they can decide which store to enter making the decision process is easier for them and saving their time. Kim (2013) contradicted regarding window display increasing sales by stating that no prior research has proved the effectiveness of window display in increasing sales but it has been observed to stimulate impulse buying behavior among consumers. However, it is significant that the display should be appealing enough to trigger this stimulation rather than just a decorative art piece.

The art of displaying the product in such an aesthetic manner that it stimulates the desire of purchase among consumers is known as visual merchandising. This technique helps in generating larger store traffic increasing the sales of the products eventually. Customers are highly imaginative and develop a certain image of a store in their minds. It is the primary responsibility of the management to ensure that both the exterior and interior of their store is designed keeping in mind the image that their target market has developed in their minds. The outlook of the store should be designed in such a way that it is not only appealing but is highly convenient for the customers as well. In order to successfully implement this technique marketer must conduct a thorough research and indulge into a proper planning considering all the details that are required in order to establish a visually pleasing store for their target market. The outlook of the store should portray the true essence of the brand and must highlight those attributes that make the store distinctive from their competitors (Stanley, 2010).

Bashar and Irshad (2012) in their study revealed that window display and floor merchandising have a positive correlation with impulse buying behavior and overall Visual merchandising has a significant impact on the consumer buying behavior. In light of above literature, following research hypothesis has been created:

H3: Window Display of the retail store has positive and significantly impact on consumer attention.

Store Interior Design as a Stimulus In-Store Visual Merchandising.

The interior design of the store plays a vital role in the shopping experience. Proper signages, fixtures, seating arrangements are few fundamental elements of store interior and décor.

The interior décor is one of the key elements of visual merchandising. According to a study conducted by Hoch and Purk (2000), the interior of the store or the shelving of the product must be done in such a way that it contributes towards increasing the in-store traffic for the outlet. This can be easily achieved by situating the shelves at the right height where they are easily visible as well as accessible to the customers. Those products that are high in demand must be placed at the lower end while the low demand product must be placed at a high altitude where they are easier to grab the attention of consumers. However, Davis and Tilley (2004) highlighted that shelving in a store is a challenging job and is often considered as one of the basic element behind the success or failure of a store.

As mentioned by Carpenter and Moore (2006), one of the biggest factors that drive the customer either towards or away from the store is the cleanliness and hygiene of store. However, If the management is concerned about their outlet's hygiene they are more likely to draw many customers towards their store while unclean stores stimulate opposite reaction among them. Moreover, it also helps in constructing a positive image of the store in the mind of the consumers.

According to Yun and Good (2007) along with the color scheme and theme, there are various other things that help the management in the interiors of the store such as seating arrangements, various props, fixtures, and signage. The signs placed at different spots are considered extremely significant as it helps the consumers with the direction as well as the management in promoting the brand.

H4: Interior design of the retail store has significant positive impact on consumer attention.

RESEARCH METHODOLOGY

Sample Size & Sampling Technique

280 respondents were selected as the sample size for this research. The questionnaire included close ended questions and instrument was distributed randomly. The ethical use of respondents' data and information was also ensured. The sampling technique used for the research was non-probability and the respondents were chosen on the basis of convenience. The respondents were general consumers at different retail markets.

Data Collection Method

For this study quantitative data was collected through a survey based on a questionnaire which was self-developed to suit the nature and objective of the study.

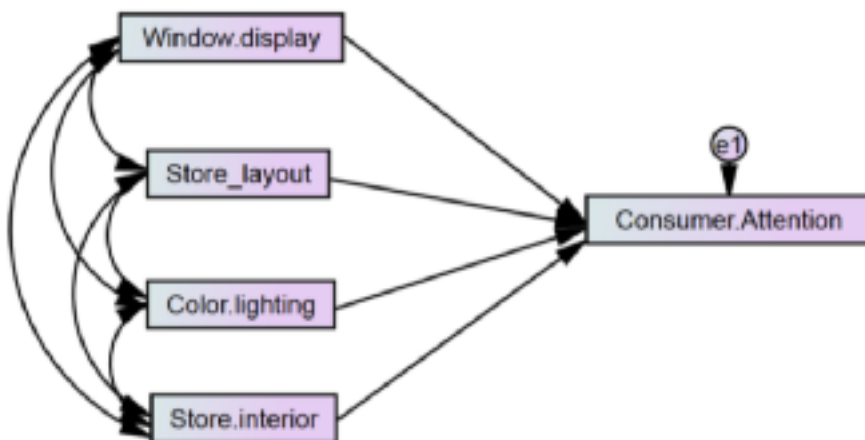
The Instrument of Data Collection

In order to gather data for this research the instrument of a questionnaire was used. The questionnaire has been developed using a Likert scale of 1 to 5. The target population for this survey was general consumers.

Research Model

The idea behind the research was to study and analyze how visual merchandising variables such as store layout, window display, color & lighting and store interior design effect in gaining consumer attention. Figure 1 represents the model developed to conduct the study.

Figure 1. Research Model



Reliability and Measurement of Variables

Table 1. Constructs and Items Reliability

No	statements	p-value	Correlation Coefficient	Cronbach's Coefficient Alpha
Store Layout				0.856
1.	A good store layout makes it easy for consumers to find desired products.	0.000	0.824	
2.	The aisle (passageway) should be designed in a way that avoids in-store traffic jams.	0.000	0.898	
3.	Consumers often intend to buy unplanned products if the store has proper product shelving.	0.000	0.845	
Window Display				0.841
1.	Window displays explain the image of the store.	0.000	0.828	
2.	Good window display influence consumers to visit the store.	0.000	0.894	
3.	Window display is a good source for retailers to advertise promotional campaigns (seasonal discounts, new arrival, sales, etc.)	0.000	0.791	
4.	Window display leads to impulsive (unplanned) buying.	0.000	0.854	
Color & Lighting				0.837
1.	Brightly lit stores are more attractive than dimly lit stores.	0.000	0.894	
2.	Stores with cool colors such as green and blue are more attractive than stores with warm colors such as red and yellow.	0.000	0.792	
3.	Proper lighting of the store helps consumers to easily observe the labels and details of the desired product.	0.000	0.781	
4.	Good lighting impacts the atmosphere of the store.	0.000	0.841	
5.	Good Lightning encourages consumers to visit the store	0.000	0.878	
Store Interior Design				0.891
1.	Color and lighting of the store should be aligned with the furniture of the store in order to reflect a basic theme.	0.000	0.854	
2.	The interior design of the store should be aligned with the theme of colors that are used in the company logo.	0.000	0.893	

3.	Direction signs are necessary for customers to easily locate their desired product in the store.	0.000	0.887
4.	The store should maintain proper cleanliness in order to gain consumer attention.	0.000	0.874
5.	The store atmosphere makes consumer comfortable to stay longer in the store?	0.000	0.951
Consumer Attention			0.864
1.	The infrastructure of the store affects consumer attention.	0.000	0.872
2.	Attractive visual merchandising plays a major role in seeking consumer attention	0.000	0.905
3.	The design and interior of the store play an important role in gaining consumers attention to visit and stay longer in the store.	0.000	0.794
4.	Effective color and lighting of the store lead to consumer attention.	0.000	0.887

Table 2. Reliability Statistics

Cronbach's Alpha	N of Items
.858	21

The reliability of the collected data of the study is given in Table 2. The reliability test was applied and the results show that the gathered data of the research is 85.8% reliable and data can be used for testing hypotheses.

Statistical Test Applied on Data

All the variables were analyzed using SPSS 19 and AMOS 18 version both were used. For the first two models, AMOS was used while for the third double mediated model Process macro of Hayes (2013) was used. Multiple Regression analysis was applied to evaluate the impact of variables of visual merchandising on consumer attention.

ANALYSIS AND RESULTS

Findings and Interpretation of Results:

Table 3. Descriptive Statistics

	Mean	Std. Deviation	N
Consumer Attention	4.0875	.52229	280
Store layout	4.1821	.46776	280
Window display	4.0152	.52704	280
Color lighting	3.9257	.48687	280
Store interior	4.0457		

Table 3 represents Descriptive Statistics showing independent and dependent variables and their values. Based on the data, the mean value of consumer attention is 4.08, store layout is 4.18, window display is 4.01, color & lighting is 3.92 and store interior design is 4.04. While the overall mean of the data is 4.04. Any value less than 4 shows the rejection of the hypothesis. According to the results, there is an impact of store layout, window display, color & lighting and store interior design on consumer attention. Further to check the direction of impact of the variable on dependent variable multiple regression was carried out on AMOS. Results are presented below with interpretation.

Table 4. Model Summary

Change Statistics									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.581 ^a	.337	.328	.42829	.337	34.973	4	275	.000

Predictors: (Constant), Store interior, Window Display, Store Layout, Color lighting

The model summary of the analysis is provided in Table 4. The value of R square is 0.337 which means that 33.7% variation is explained by the model.

Table 5. ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	25.661	4	6.415	34.973	.000 ^a
Residual	50.445	275	.183		
Total	76.106	279			

a. Predictors: (Constant), Store interior, Window Display, Store Layout, Color lighting.
Dependent Variable: Consumer Attention

Table 5 represents ANOVA which shows the significance of the model fit. Since the significant value is 0.000 which is less than 0.05, the model is said to be significant for further analysis to check the effect of each independent variable on Consumer Attention.

Table 6. Regression Coefficients

		Estimate	S.E.	C.R.	P
Consumer Attention	← Window display	.137	.061	2.247	.025
Consumer Attention	← Store layout	-.210	.068	-3.082	.002
Consumer Attention	← Color lighting	.249	.067	3.700	.000
Consumer Attention	← Store interior	.453	.060	7.567	.000

Table 7. Intercepts of the model

	Estimate	S.E.	C.R.	P
Consumer Attention	1.603	.272	5.892	.000

Table 8. Total Effects of all four IV's on DV

	Window display	Store layout	Store interior	Color lighting
Consumer Attention	.137	-.210	.453	.249

Table 9. Direct Effects of IV's on DV

	Window display	Store layout	Store interior	Color lighting
Consumer Attention	.137	-.210	.453	.249

The table 6 of coefficients shows the significant values and the beta value of all independent variables. The sig value of the entire four variable used in the model are less than 0.05 and are significant. Furthermore, Color & lighting in the table has 0.000 sig value and 0.249 beta value of which explains that it is significant and positively affect consumer attention. Hypothesis 1 which states that Color & lighting of the retail store have significant positive impact on consumer attention, is accepted.

Likewise, store layout has sig value of 0.002 which is significant but the beta value of store layout is -0.21 which shows that it has a negative impact on consumer attention. It reveals that if the store layout has not been planned out and the consumer is not able to figure out how to roam inside the store, the bad layout will have a negative effect on consumer attention and experience.

The sig value of window display is 0.026 which is significant and beta value is 0.137 which shows that it has a positive impact on consumer attention. Hence hypothesis 3 that Window Display of the retail store has positive and significantly impact on consumer attention was accepted.

The sig value of store interior design is 0.000 which is significant and its beta value is 0.453 showing a positive impact on consumer attention. Therefore hypothesis 4 that Interior design of the retail store has significant positive impact on consumer attention was accepted.

Figure 2. Research Model tested

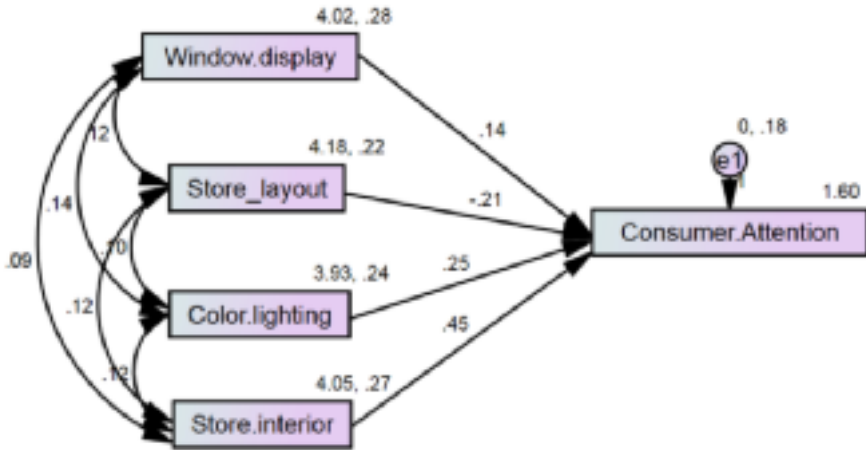


Table 10. Hypotheses Assessment Summary

Hypotheses	Beta Value	Sig Value	Empirical Conclusion
<i>H₁: Color & lighting of the retail store have significant positive impact on consumer attention.</i>	0.249	0.000	<i>H₁ Accepted</i>
<i>H₂: Store Layout of the retail store has significant positive impact on consumer attention</i>	-0.210	0.002	<i>H₂ Rejected</i>
<i>H₃: Window Display of the retail store has positive and significantly impact on consumer attention</i>	0.137	0.026	<i>H₃ Accepted</i>
<i>H₄: Interior design of the retail store has significant positive impact on consumer attention.</i>	0.453	0.000	<i>H₄ Accepted</i>

DISCUSSION & CONCLUSION

The study was conducted for evaluating the impact of visual merchandising on consumer attention in the retail store in the Pakistani context. Analyzing and examining the influence of visual merchandising variables i.e. window display, store layout, color & lighting and store interior design of different retail outlets in attracting consumers were done by collecting responses of the consumer in a retail setting through a questionnaire. Results were revalidating the findings of previous researchers that Visual merchandising is a very important tool and has effect on impulse buying behavior (Kim, 2013) and Bashar and Irshad (2012) revealed that window display and floor merchandising have positive correlation with impulse buying behavior and overall Visual

merchandising has a significant impact on the consumer buying behavior and in increasing the footfall of the stores. This research was carried out with consumer attention as a dependent variable to add new findings in the visual merchandising literature.

People are usually attracted towards the stores that look attractive and eye-catching. This results in impulsive buying as well. The findings of this research that window display has a positive significant effect on consumer attention supported the previous findings that providing customers with unique and distinctive window displays is the only mean through which retailers can keep up the attention of consumers (Mehta & Chugan, 2013). The color and lighting helps in making people step in the store as the findings of this research were that color and lighting has significant and positive effect on consumer attention similar to findings of Aspfors (2010) in which it was stated that lighting is necessary to grab the attention of the consumers and encourage them towards initiating the purchase (Olson, 2005; Jacobs & Suess, 1975; Babin et al., 2003). Lastly, the layout of the store should be designed in an organized way with a good interior as it makes the consumers stay longer in the store. The layout must be such that it a customer entering the store conveniently finds all the goods required to him (Ebster & Garaus, 2011). In an empirical study Garaus et al. (2015) stated that a good store layout increases the probability of consumers to stay longer in the store and enjoy the traffic free shopping experience. Findings of this study also signify that if store layout is bad then it will have a negative impact on consumer overall experience. Visual merchandising is one of the techniques which are used to attain competitive advantage as well. People are more likely to visit or shop from the store which can gain their attention. Marketers are using the visual merchandising strategy to bring more customers in the store to that of the competitors.

This study concludes that visual merchandising has an impact on consumer attention along with enhancing the consumer behavior. To gain the attention of consumers' window display, color & lighting and store interior design play a very vital role. If we conclude the research, it is seen that H1, H3, and H4 were accepted while H2 was rejected. Getting consumers attention and consideration is something very important for the store managers to increase their buying. Store managers should use visual merchandising strategies to communicate with the customers and making them visit their stores.

POLICY IMPLICATIONS & FUTURE RESEARCH

Retailers and other store managers should focus on implementing the elements of visual merchandising. This should be included in their marketing practice as this is a very unique and innovative way of communicating with customers in this increasing retail space in malls. Based on this research, the marketers should focus on the window display of products, color & lighting along with store interior design to gain and increase the attraction level of consumers and prospect customers. It ultimately has an impact on consumer buying behavior and consumer attention as well.

This research was carried out with a lot of limitation. Future study can be carried out on a broader perspective of visual merchandising to increase consumer attention and buying behavior. Carpenter and Moore (2006) have used the cleanliness and hygiene of store as variable in visual merchandising, this variable can also be used in future. Furthermore, music and scents inside the store as mediating variables can be added in the model and tested to give new insights and broader research in visual merchandising. In this study, simple aspect of lighting and color were taken into consideration, in future researchers can include categories of color and lighting like dark or bright color and bright fluorescent (soft) lights as variables used by Baker et al., (1992) and Schlosser, (1998). The inclusion of these entire variables in the Visual merchandising model can reveal very interesting and useful findings for the retail industry.

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MEASURING STOCK MARKET PREDICTABILITY WITH IMPLICATIONS OF FINANCIAL RATIOS: AN EMPIRICAL INVESTIGATION OF PAKISTAN STOCK MARKET

Abdul Samad Shaikh, Dr. Muhammad Kashif, and Sadia Shaikh

ABSTRACT

This paper investigates the financial ratios prediction on Stock Market Returns for Pakistan Stock Exchange. The research includes three financial ratios; Dividend Yield (DY), Earning Yield Ratio (EYR) and Book-to-Market Ratio (B/M); that have been observed through past researchers as predictors of Stock Market Returns. The theoretical framework is based on Arbitrage Pricing Theory and Capital Asset Pricing Model CAPM by Roll and Ross (1977) and Fama-French 3 factor (1992). Generalized Least Squares (GLS) is applied to estimate the predictive regressions, Co-integration runs are applied to evaluate the long-term relationship, and Generalized Methods of Moments (GMM) to measure the moments over the years and fluctuations in stock returns. The study results show financial ratios as strong predictor of stock return in Pakistan Stock Exchange, the GMM analyses reveal that the EYR has the higher predictive power than DY and B/M respectively. Furthermore, it is found that the financial ratios predictability is enhanced when ratios are combined in the multiple predictive regression models. The research findings are useful for the stock market investors to evaluate their decisions and for academic researchers to evaluate the stock market and investment predictability.

Keywords: *Stock Market Returns, PSX-100 Index, Earning Yield Ratio (EYR), Dividend Yield (DY), and Book-to-Market Ratio (B/M).*

INTRODUCTION

The Stock Market plays a critical role in the development of national savings and provides an opportunity to increase the national and individual

profitability. The Stock Market is the place of Investment which performs a vital role for economic development especially in emerging economies and helps increase the economic wealth. The Stock Market paves way for investors to invest in various sectors, increasing the savings ratio which in turn increases the output of Nations. The Stock Market is affected by various Economic factors and concurrent financial conditions of the economy; however, these factors can be predicted in various ways. Robert (2016) state that the macroeconomic conditions of the economy can be measured by the understanding of Exchange rates, External Debts, GDP of the Country, Per Capita Income, Living standards and employment rate. It has been observed that the investors' Decisions in investing stock market are affected due to the fluctuations in prices. However, the change in prices and volatility can be measured through the behavior of changes in the macroeconomic scenario of the country. Thus, changes in macroeconomic scenario lead to investor's investment decisions in different sectors of the economy (Kheradyar, Ibrahim & Nor, 2011).

This research explicates the premise that the financial ratios can predict the stock returns, and volatility in stock prices, over a period of time. The financial ratios presumed to predict the stock returns include the Dividend Yield Ratio (DY), Book-to-Market Ratio (B/M) and Earning Yield Ratio (EYR). According to McWilliams (2006) these ratios can predict the overall validity and changes in stock returns based on time series data. The research explicates the findings of fluctuations in Pakistan Stock Exchange with all registered Index companies by taking the monthly DY, B/M, and EYR ratios and applying the econometric techniques of multiple linear regression and Co-integration Approach.

The Pakistan Stock Market role in economic growth has been strengthened through past years and it maintains its position as the best trading market in South Asia in 2016 (Robert, 2016). The Pakistan Stock Exchange with 955 listed total companies and 656 companies is active with market capitalization of 8079.598 billion Pak rupees with 35 sectors of listed organizations which include the diversified businesses and companies from Oil & Gas sector, fast moving consumer goods Industry, Telecom sector, hospitality sector and others. The stock market returns predictability research has been conducted in US and Malaysia, however, there is no such research evidence in Pakistan stock market scenario (Kheradyar, Ibrahim & Nor, 2011). The researcher thus strives to conduct similar research, in order to predict the stock market returns based on financial ratios.

RESEARCH PROBLEM

The Stock Market returns predictability in emerging markets is the most dynamic and challenging issue (Fama & French, 2004). The Stock markets returns can be predicted through various ways as Stock markets returns are affected by different financial and Macroeconomic variables which include the Exchange Rate Volatility, Inflation rate, Economic Growth (GDP) and many other variables which instigate the volatility in stock market prices (Fama, 2001). The Stock market returns' fluctuations can be anticipated through financial ratios, in order to measure the certainty level and risk of investment by measuring the profitability ratios (Fama & French, 1988). These profitability ratios include the dividend yield ratio, earning prices ratio and Book-to-Market Ratio. Thus this research will imply the predictability of stock returns with the help of these three financial ratios, in order to gauge stock returns profitability and fluctuations over time.

RESEARCH QUESTIONS

The research questions provide the framework and focus of conduct the research in particular direction (Creswell, 2011). The Research questions explicate the purpose and limitations of research in field or area of investigation (Denzin, 2007). The Research questions for this study are as follows:

- What is the relationship and impact of financial ratios with Pakistan Stock Market returns?
- To what extent the predictability of stock market returns could be measured through financial ratios in Pakistan Stock market returns?
- What is the construct validity of stock returns predictability measured through financial ratios in Pakistan Stock market returns?

LITERATURE REVIEW

The Stock Market returns have greater volatility in variations and changes in prices in emerging markets. The empirical researches evaluated the findings based on various ways to measure the stock market returns by incorporating the different financial ratios. The financial ratios also depict the variations and methods to evaluate the different relationships based on changes in stock market returns. The predictive power of Earning Yield evaluates the change in stock returns and is considered as Independent variable for forecasting. The relationship of Dividends yield and Book-to-Market value has been observed as significant predictor in

various emerging markets including Malaysia, India, and Pakistan.

Stock Market Returns in Developing and Developed Economies

The Korean Stock market has direct positive relationship between the stock market returns with the Dividend Yield and Book-to-Market Ratio. The size of the firm and market capitalization has direct relationship with stock market returns (Mukerji, Dhatt & Kim, 1997).

The Dividend yield is the significant predictor of the Korean stock market returns in the period 1992-2002 monthly time series data. The expected growth and return have direct relationship with the stock market returns. The greater the risk the greater the profitability and investor have to maintain the high passions for the growth. In Japan the Market to Book ratio is observed as economically statistically significant sample is judged for the period of last 10 years of data. The Korean Stock market returns can be predicted with the B/M ratio, PE ratio and but in the Korean market, it has the less trustworthiness indicator than BM and Shares Price ratio (SP).

Lewellen (2002) the predictive power of financial ratios has significant predictor in the US Markets, the stock returns is more than P/E and B/M ratios. The study also forecast interest rates with the predictive power of dividend. The short-term forecasting, dividend yield predictive power is more than the long-term forecasting. Bekaert (2006) analyzed the firm importance based on size and ratios helps to determine the relationship and impact of stock market returns. The expected growth is expected with growth of cash flows and prediction also increases increase in dividends yield.

It is reasonable to say that opinion of professionals' on predictability of returns of stock has been shaped by empirical studies on U.S. stock market. Thus, this article contributes to constructing validity of predictability of returns of stock which is still unidentified in developing market. Furthermore, the validity of predictability of returns of stock hinges on sample choice. Hence, for developing the validity of predictability of returns of the stock demands more research in several samples (Schall, 1998).

Financial Ratios and Stock Market Returns

Amongst preset financial ratios on predictability of returns of stock literature, Dividend Yield (DY), Earning Yield Ratio (EY), and Book-to-Market ratio (B/M)

has a robust theoretical background based on predictive model since ratios constituted exact characteristics. Firstly, each ratio has stock price in denominator, therefore when stocks are overpriced; ratios present lower value & forecast low returns of stock. Secondly, the ratios follow time difference in discount rates; therefore, ratios ought to be positively associated to discount rates. Thirdly, the statistical properties' of ratios have a huge impact on predictability of returns of stock, since the majority part of movement of ratios is produced by price changes in denominator (Schall & Pontiff, 2007). Finally, theories of finance lay huge importance on role of risk on returns of stock as connection between returns of stock and financial ratio is because ratios caught information about risk. Thus, these three financial ratios are supported by theoretical basis of finance.

Dividend Yield (DY) Ratio and Stock Returns

By the empirical research, the dividend yield has a predictive power on returns of the stock as the connection between dividend yield & returns is established by tempting patterns. Likewise, dividend yield track variation in returns can forecast future returns in 36 global markets. To demonstrate the forecasting power, dividend yield introduced explosive new test for improving forecasting capability of financial ratios particularly DY during 55 years (Robert, 2016). Thus, dividend yield is considered as a good forecaster of returns of stock in China, Canada, and U.S. stock markets (Chen, Chiang, & So, 2003). Subsequently, DY as a strong predictor can contribute to predictability of returns of stock. Bekaert (2006), in his study tried to predict interest rate & returns of stock with the assistance of forecasting power of DV. Moreover, they found that: for short-term forecasting, DV's predictive power is more than long-term forecasting. But, as far as expected growth of cash flow is concerned then the dividend yield (DY) is a good predictor variable. Lewellen (2002) conducted his study in U.S. and found that dividend yield's predictability power of forecasting returns of stock is more than P/E & B/M ratios.

H₁: There is a significant relationship of Dividend Yield (DY) Ratio in predictability of stock market returns' in Pakistan Stock Market (PSX).

Earnings per Share Ratio (EPS) and Stock Returns

More than seventy years back stock price valued based on price to earnings ratio (the contrary work of EY) as a standard method of that era. Moreover, the seminal work presented witness of return gain to a low price to earnings ratio & shown that: stocks with negative price to earnings ratio have distinctive risk to return characteristics. Likewise, (P/E) ratio is arguably the price multiple, which regularly quoted by media & used by analyst and investors; and P/E ratio is undoubtedly the

most acquainted valuation measure nowadays. Moreover, the changes in price to earnings ratio (opposite to EY) are linked to significant variables i.e. expected earnings growth, expected earnings risk, dividend per share & dividend payout since the price earnings ratio effects on value strategy of market investors. Fama and French (2004), acknowledged the key factors which effect on P/E ratio by transforming dividend discount model to theoretical calculation model.

Nevertheless, P/E and B/M ratio becomes the base for indirect connection amid stock returns firm's size. Kothari and Shanken (1997) in their study for the US market that DY and B/M ratios have reliable proof for predicting real return over a period of 1926-1991 and there exists a path of time series variations. Schall and Pontiff (2007) specified in their study that as far as predicting power is concerned, B/M ratio has some forecasting power of predictability of returns of stock.

H2: There is a significant relationship of Earning Yield Ratio (EY) in predictability of stock market returns in Pakistan Stock Market (PSX).

Book-to-Market (B/M) Ratio and Stock Returns

Substantial witnesses recommended that book-to-Market ratio is connected to future returns & signified that predictive power of Book-to-Market ratio on returns of stock caused by the connection amid book value & future earnings and provided witness that B/M ratio forecast negative expected returns & track variation in returns. Moreover, the consequence of recent survey affirmed prior result that Book-to-Market ratio is positively connected to returns of stock (Schrimp, 2010). Nevertheless, it has been found that Book-to-Market ratio has a major role in the establishment of returns of stock, and the connection amid returns of stock and Book-to-Market ratio is owing to the attraction of B/M ratio to the implications of market leverage which constitute the risk factors that plays an effective role in predictability of returns of the stock. Thus, Book-to-Market as a predictor has a significant impact on returns of stock (Kheradyar, Ibrahim & Nor, 2011).

H3: There is a significant relationship of Book-to-Market Ratio (B/M) in predictability of stock market returns in Pakistan Stock Market (PSX).

Financial Ratios as Strong Predictor of Stock Returns in Developing Economies

This study discovers witnesses of predictability of returns of the stock with financial ratios stresses two key points. Firstly, alike to finding of prior research in developed market, financial ratios are able to forecast returns of future stock in Malaysia market as an essential emerging market. Secondly, the blend of financial ratios augments the predictability of returns of stock.

Campbell and Shiller (1988) specified their study that: as dividend yield has the capability to restrain expected return & expectation about growth in dividend yield as dividend yield is good predictor of returns of stock. Chan, Hamao and Lakonishok(1991), found that Japanese market essential variable such as dividend yield, P/E ratio, price to earnings ratio, Book-to-Market ratio & size of firm have substantial impact on expected returns of stock. Moreover, they inform that: there is an indirect association amid earnings yield & returns of stock in Japan. In comparison of size of the firm & earnings yield; the book-to-market & dividend yield (cash flow yield) are significantly connected with stock returns'. Moreover, they further added that an essential variable both statistically & economically is Book-to-Market ratio, and this needs to be observed because either the subsequent half of the sample is judged or for the first time test is applied to Book-to-Market ratio which reveals its continuation. Mukerji, Dhatt, Kim (1997) on Korean Stock Market for a period of 1982-1992, found a direct connection amidst of stocks' return. Moreover, they established that P/E, S/P and B/M and an indirect connection amid firm's size and stocks returns. Pilinkus and Boguslauskas (2009) discovered that P/E ratio is less dependable indicator than B/M and S/P. Beta is a weak proxy for assessment of risk when compared with debt to equity ratio. B/M and S/P are accountable for direct connection amid stocks' return & debt to equity.

Adarmola (2012) analyzed the effect of size of firm, beta and Book-to-Market value on returns of stock in Istanbul stock exchange. Moreover, he used data from July 1983- December 2005- for Istanbul Stock Exchange, and used Fama and French (1992) for building portfolios signified exactly by size beta & then size to the book market. He found that the book-to-market & Beta of firms have no effect on returns of stock in Istanbul Stock Exchange. Likewise, size of the firm was the only variable which was negatively connected to returns of stock in Istanbul stock exchange. Furthermore, he also revealed that Book-to-Market, size & beta is not associated with January effects. Alam and Uddin (2009) in his study tried to seek out worldwide predictability of returns of stock. Moreover, he took twenty thousand monthly observations from forty global stock returns, of which 24 were of developed economy.

RESEARCH METHODOLOGY

This research is conducted in Epistemological philosophy with Post-Positivism Research paradigm (Suanders, Thornhill, & Lewis, 2009). The research is Quantitative in nature, based on Secondary research with time series data of monthly frequency of Pakistan Stock Market Returns. The methodology provides the choices of methods to conduct the Quantitative research (Zikmund,

2012), among the deductive, explanatory research design. The research approach is deductive in nature as research is conducted through secondary data of Pakistan Stock Market returns and data of financial ratios of all Pakistan listed companies.

Variables and Data

The Research was conducted through time series data extracted from Thomson Reuters, with monthly frequency of last 10 years, from July-2006 to June-2016. The Financial ratios included in the study are Dividend Yield Ratio (DY), Earning Price Ratio (EP) and Book-to-Market Ratio (B/M) with all indexes of Pakistan Stock Market returns. The time series data of monthly indices is taken and formulated through organization profitability, dividend distributed and Book value by dividing the price of share. The data and then indices of 100-index computed. The data is time series data as the ratio or indices taken of 100 organizations of all three ratios includes the DY, EY and B/M.

Measurement of the Variables

Stock Returns. Following Lewellen (2004) and Kheradyar et al. (2011), the Stock returns are used as monthly indices of returns and based on changes in prices opening and closing prices, the difference of both is the change or earning gain over the stock on monthly basis. The Stock returns changes or fluctuations based on various economic factors and financial variables and change in ratios.

Book-to-Market Ratio (B/M Ratio). The Book-to-Market Ratio is the Book value of share divided by its market prices and ratio is taken to capture the changes in stock market returns, as we taken the whole index and we also taken the ratios indices of monthly based on same 100 index organizations. This is very important ratio and strong predictor of Stock returns in USA, Malaysia and China (Mukherji, Dhatt, & Kim, 1997).

$$\mathbf{B/M = Market\ value / Book\ Value\ per\ share}$$

Dividend Yield Ratio (DY Ratio). Following Kheradyar et al. (2011) the Dividend Yield also the significant predictor of stock returns based on earning of organization. The Earning of organization increases the value increases and increase in value increase the dividends over the market price. Thus this reflects the direct change in Book-to-Market value for the organization and has clear idea of change in the values based on given indicators.

$$\mathbf{Dividend\ Yield\ (\%) = (Dividend\ per\ Share / Market\ rate\ per\ share) \times 100}$$

Earning Yield Ratio (EY). The empirical researches express the other

ratios also explains the predictive power of stock returns, as the association of earning yield with stock returns are considerable in developing economies includes the China, India, Malaysia, and Pakistan. The Earning yield also expresses the efficiency of market includes the relation between the markets as important role in building in affecting the stock market returns. Following Kheradyar et al. (2011) we have measured earning yield as earning per share divided by price of share.

Earning Yield Share (%) = (Outstanding shares/ Market value of shares) x 100

Data and Sources of Data

The research was conducted to measure the predictability of stock returns based on financial ratios and three ratios are selected based on their importance and literature. The time series analysis will be done by using the time series data of these 3 ratios and stock market indices of last 10 years Jan-2007 to Dec-2016. The Data will be collected through Thomson Reuters by using the PSX of 100 index companies.

Data Sources:

PSX (Pakistan Stock Exchange), Variables Stock Market Returns

PSX by Suing Thomson Reuters: Variables Financial Rations monthly indices of DY, EY and B/M Ratios

THEORETICAL FRAMEWORK

This Research was conducted with theoretical perspective of Sharpe and Litner (1964) conception of CAPM Capital Asset Pricing model to evaluate the risk and return relationship. The Variations in Stock Returns based on are the risk for the investors these are the systematic risk can be diversified through the making the portfolios and investment in other shares. The idio-centric risk cannot be minimized and risk and return relationship exist due to changes in financial and macroeconomic variables. The Roll and Ross Model (1977) elaborate the risk and return relationship through Arbitrage Pricing Theory. This also emphasis on risk diverse by more components in risk premiums includes the liquidity risk, default risk, and others. The Fama and French (1992), given the model of 3 factors by adding two more factors includes the Size SMB and Value HMB factor to measure the expected returns.

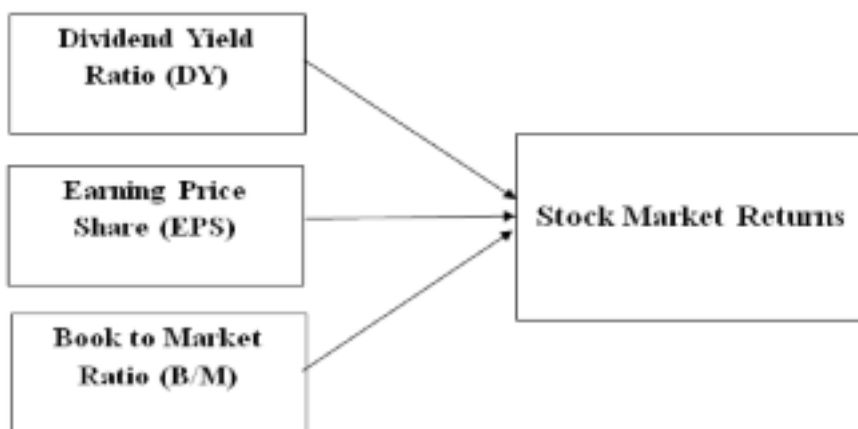
The Theory of Monetary Mechanism depicted by Mishkin (1996) expressed the risk the factor which is caused by macroeconomic and financial variables

impacts the performance of all sectors includes the stock market returns. The Money Supply, Inflation, interest rates, Total output and Per Capita Income, Consumption and Savings are the various components affect the stock market returns. This research will be conducted based on theory of Sharpe and Litner (1964) with framework of Mishkin (1996) and borrowed ideas of empirical researches by Fama and French (1992); and Fama and French (2004).

CONCEPTUAL FRAMEWORK

The Research is conducted with theoretical framework of Sharpe and Litner (1964) of Risk and Return relationship, and based on Monetary Mechanism by Mishkin (1996) who express the relationship of various factors affecting the stock market returns. The Research borrows the findings from empirical researches by Fama and French (1992); Lawllen (2002); Schrimp (2010), and Kim (2007) describes the Stock market predictability with financial ratios by conducting the similar type of ratios in different economies includes the USA, UK, Malaysia, and India. The Financial Ratios are also the significant process to evaluate the stock market returns in developing economies as the researchers prove the financial ratios which include the Dividend Yield (DY), Earning Yield (EY) and Book-to-Market value.

Figure 1. Conceptual Framework



This research is conducted by attempting the selected three ratios including the DY, EP, and BM which are most critical with perspective of Pakistan and returns are evaluated with short run as well as long run returns to measure the impact of short run and long run dynamics. The research also explicates the validity of these constructs based on predictive power of stock market returns in case of Pakistan Stock Market returns.

RESEARCH HYPOTHESIS

- H1:** There is significant relationship between Dividend Yield Ratio (DY) with Predictability of Stock Market Returns in the (t) time period.
- H2:** There is significant relationship of Earning Price Ratio (EP) with Predictability of Stock Market Returns in (t) time period.
- H3:** There is significant relationship Book-to-Market Ratio (B/M) with the predictability of Stock Market Returns in (t) time period.
- H4:** There is significant relationship between Dividend Yield Ratio (DY) with Predictability of Stock Market Returns in (t-1) time period.
- H5:** There is significant relationship of Earning Price Ratio (EP) with Predictability of Stock Market Returns in (t-1) time period.
- H6:** There is significant relationship Book-to-Market Ratio (B/M) with the predictability of Stock Market Returns in (t-1) time period.

ECONOMETRIC MODELING & DATA ANALYSIS

For the predictability analyses, Firstly the Generalized linear regression (GLS) models are used based on stochastic assumptions and then the Correlation between the stock returns and financial ratios are conducted. The research also evaluates the Stationary of data with ADF (Augmented Dicky Fuller test) and lag length selection criteria and VAR is applied to measure the relationship and direction. Co-integration approach is applied to predict the short and long-term dynamics of Stock Market returns and financial ratios.

$$SR_{it} = \beta_0 + \beta_1 DY_i(t-1) + \beta_2 EY_i(t-1) + \beta_3 B/M_i(t-1) + \epsilon_{it} \quad (2)$$

SR: Stock Returns, β_0
 = Constant Factor, *DY_i(t-1): Dividend Yield at sample period (t-1), EY_i(t-1) Earning Yield at period (t-1), $\frac{B}{M}$ Book to Market Ratio at (t-1)*

Table 1.

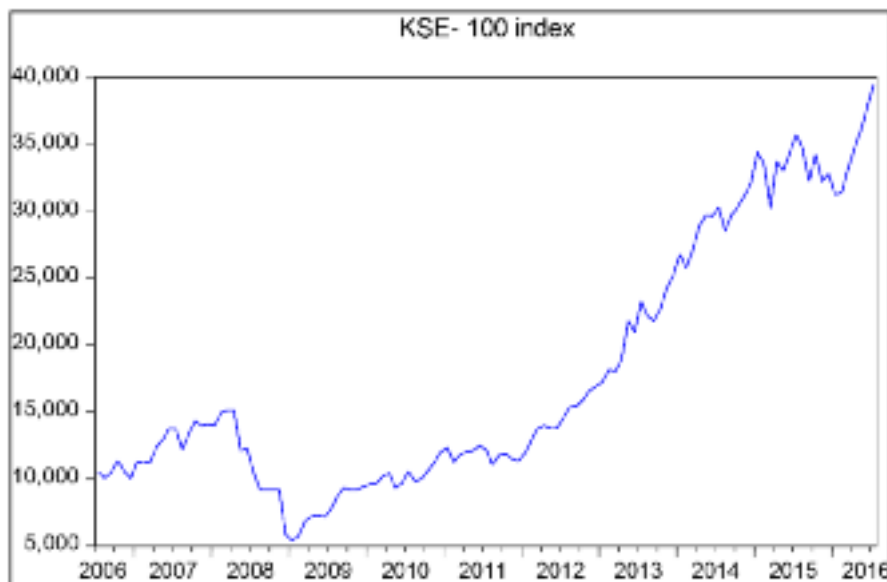
Model and Tests	Purpose
ADF (Augmented Dicky Fuller Test)	Test for Unit Root (Stationarity of Data)
LM Test and White Test	Heteroskedasticity and Autocorrelation
GLS (Generalized Regression Model) OLS	Measuring the strong Predictor
Shanken Statistics (Kothrai and Shanken, 1997)	Testing Hypothesis and Strong Predictor
GMM (Generalized Methods of Moments)	Measure the Moments and Volatility
Johnson Co-integration test	Long term relationship for Predictability

***ADF:** Augmented Dickey-Fuller Test for Normality of Data, ***VAR** (Vector Auto Regression), ***Co-integration Test:** Measuring the long term relationship at time t and sample (t-1)

EMPIRICAL ANALYSIS

This research is conducted to evaluate the impact of various factors on stock returns. The research evaluates the impact with analysis of financial ratios, as financial ratios are computed from organization performance so variation in share prices has clear identification from financial ratios.

Figure 2. Graph of Monthly Data of last 10 Years



Source: Authors Work

The KSE-100 is the Pakistan Stock index, the market had many fluctuations through past decade but in the month of March 2008, it achieved 15000 points milestone. With this milestone the Pakistan stock market entered into emerging market and secured the title of best stock market. One drawback was also witnessed in August 2008 when the chaotic situation occurred and the whole market was collapsed and the market did get floor for 110 days. This action of KSE management gave an adverse impact and around \$36.9 billion was taken out from the stock market shares.

Testing and Stationary in the Data

The Data is taken from relevant and reliable sources and data is non-stationary, there are shocks and impulses as volatile nature of financial and macroeconomic variables. The monthly data of last 10 years on Variables KSE-100 index, DY, EPS and BM collected and firstly check the Unit root in the data based on the ADF (Augmented Dicky Fuller test at level. Non-

stationary of time series data has often been considered as a problem in empirical analysis. Working with non-stationary variables leads to spurious regression results, from which further inference is meaningless.

H₀: Series have no unit root (time series is non-stationary)

H₁: Series have a unit root (time series is stationary)

Table 2. The results of unit root test of the variable (ADFT)

Variable	Critical value of t at 5%	Compound t-Statistics I (0)	Decision of H ₀	Computed t-Statistics I (1)	Decision of H ₀
KSE-100	-2.88	-1.34	Rejected	2.43	Accepted
EPS	-2.88	-1.14	Rejected	-18.12	Accepted
DY	-2.88	2.31	Rejected	-19.8	Accepted
BM	-2.88	6.29	Rejected	-8.06	Accepted

The Null hypothesis is rejected and there is unit root in data at level and then taken the first difference of all by converting them into stationary data and useful for further tests and analysis.

Table 3. The results of Series Stationary Phillip Peron (PP) Test

Variable	Compound t-Statistics I (0)	Critical value of t at 5%	Decision of H ₀	Computed t-Statistics I (1)	Decision of H ₀
KSE-100	1.95	-2.88	Rejected	-8.61	Accepted
EPS	-2.45	-2.88	Rejected	-23.13	Accepted
DY	-2.10	-2.88	Rejected	-14.04	Accepted
BM	-2.33	-2.88	Rejected	-50.84	Accepted

The Stationary of data also measured through the Phillip Peron test, this is most robust test to measure the random and lot of variations in data. The data is the values so no need to convert them in log at levels the all variables KSE-100, EPS, DY, and BM are having the unit root and at Lag 1 (t-1) the is stationary and having no unit root and at first difference, data is processed for econometric modeling.

Optimal Lag Selection

Table 4. The results Optimal Lag selection

Lag order Selection	SC	HQ
KSE-100 (t-1)	5.2*	5.4*
EPS (t-1)	12.6*	13.6*
DY (t-1)	9.6*	10.5*
BM (t-1)	7.4*	9.4*
KSE-100 (t-2)	5.2**	5.4**
EPS (t-2)	12.6*	13.6*
DY (t-2)	9.6**	10.5**
BM (t-2)	7.4*	9.4*

SC– Schwarz criterion, HQ – Hannan-Quinn information criterion

After analyzing the result of unit root test next step is to find out the lag order for co-integration. One must determine the optimal lag structure of the model, i.e. the number of lags that will capture the dynamics of the series. Results of two different criteria for optimal lag selection are presented in the last table Both SC and HQ statistics suggested one lag as optimal lag. Lag length criterion is selected on the basis of Schwarz information criterion (SC) and Hannan-Quinn information criterion (HQ) because both of these criteria are selected on lag order one for all selected ratios.

Correlation Matrix

Table 5. Correlation Matrix

		DEPS	DDY	DBM	KSE-100
DEPS	Pearson	1	-.409**	-.228*	.457**
	Sig. (2-tailed)		.000	.012	.000
DDY	Pearson	-.409**	1	.763**	-.481**
	Sig. (2-tailed)	.000		.000	.000
DBM	Pearson	-.228*	.763**	1	-.516**
	Sig. (2-tailed)	.012	.000		.000
KSE-100	Pearson	.457**	-.481**	-.516**	1
	Sig. (2-tailed)	.000	.000	.000	
** . Correlation is significant at the 0.01 level (2-tailed).					
* . Correlation is significant at the 0.05 level (2-tailed).					

The Correlation shows the relationship among the variables and their impact on dependent variables. The KSE-100 index is the dependent variables, and DY, EPS, and BM are independent Variables. The KSE-100 index having the strong positive correlation with the EPS, DY, DBM. The relationship hypothesis is accepted 95% confidence Interval and 5% significance level.

Models Analysis- GLS

Model 1: Generalized Least Regression Model (GLS)

Dependent variable: KSE-100

Impact Components: EPS, DY, BM

Table 6. Predictive results for one I.V and D.V

$$ERit = \alpha + \beta 1EPS(t) + Ei$$

Model	(Bo)	B1	t-statistics	R2	P value
Sample 1 (t)	-0.024	0.018	2.2	0.61	0.016
Sample (t-1)	-0.06	0.09	2.8	0.71	0.001

$$ERit = \alpha + \beta 1DY(t) + Ei$$

Model	(Bo)	B1	t-statistics	R2	P value
Sample 1 (t)	-0.021	0.031	2.7	0.60	0.01
Sample (t-1)	-0.02	0.24	4.1	0.54	0.02

$$ERit = \alpha + \beta 1BM(t) + Ei$$

Model	(Bo)	B1	t-statistics	R2	P value
Sample 1 (t)	-0.031	0.23	2.3	0.45	0.01
Sample (t-1)	-0.031	0.16	4.2	0.34	0.00

Table 7. Predictive results for Multiple Linear GLS

$$ERit = Bo+B1 EPS (t-1) + B2 DY (t-1) + B3 BM (t-1) + Ei$$

Model	(Bo)	B1	B2	B3	t-statistics	R2	DW	P value
Sample 1 (t)	0.017	.009	0.033	2.64	5.22	0.61	2.4	0.000
Sample (t-1)	0.019	0.003	0.023	0.41	2.2	0.58	3.1	0.000

The Model runs by taking all variables together to have relationship and impact of KSE-100 index, The Model is good for prediction and Variables at both samples t and t-1 are significant with t-statistics 5.22 which is very significant, and R2 is the 0.61 that's shows by keeping three variables together as three ratios we can predictability of KSE-100 index as these three explains the 61% of variation with the help of these ratios. The sample t-1 also taken as model is run at first lag and time framework of t-1 is the data of 9 years instead of 10 years, that shows the 2.2 t-statistics and R2 is 0.58. The Durban-Watson also significant in both cases 2.4 and 3.1 that are greater than 2.0 shows the mode is significant.

Model Analysis- GMM (Generalized Method of Moments)

Model 2: GMM (Generalized Methods of Moments)

Dependent variable: KSE-100

Impact Components: EPS, DY, BM

Method: Linear estimation with 1 weight update

Table 8. Predictive results for one to one relationship

Model	B1	Standard Error	t-statistics	P value
DBM	203.1437	267.2351	0.760169	0.4487
DEPS	1322.282	287.0223	4.606895	0.0000
DDY	113.8297	232.8672	0.488818	0.6259

The GMM explain the individual characteristics and impact of every ratio on returns that affects the DY and BM are not that much significant to

capture the moments short term impacts but the EPS is most significant tools to capture the relationship. The GMM Captures the moments over the each unit and high-frequency data is required and high robustness is found to evaluate relationship of Independent Variables on Dependent Variables. The model is applied at first lag and DBM, DEPS and DDY are the three financial ratios. The GMM Describes the DEPS is significant predictor of stock returns in comparison to other DY and DEPS. The EPS t statistics is 4.606 This is significant at 5% significance level and having high significant probability. That explains that EPS is more flexible measure changes in EPS causes change in value shares and volatility can be measured.

Model Analysis- Measuring the long term relationship

Model 3: Johnson Co-integration Approach

Dependent variable: KSE-100

Impact Components: EPS, DY, BM

Method: Long term relationship of variables

Table 9. The results of co-integration at all test

Variable	Eigen Value	Trace Statistics	Critical Value 0.05	Probability	Decision of Hypothesis
None *	0.318242	96.39375	47.85613	0.0000	Co-integrated
At most 1 *	0.226391	52.33954	29.79707	0.0000	Co-integrated
At most 2 *	0.167367	22.82029	15.49471	0.0033	Co-integrated
At most 3	0.015159	1.756667	3.841466	0.1850	Not Co-integrated

The Co-integration measures the long-term relationship of variables and that explains the parameters are correlated in long run and based on these independent variables we can measure the predictability. The Co-integration is applied because research wants to evaluate the long-term relationship of financial ratios with KSE-100 index to develop the model for forecasting for long-term predictability. The Johnson Co-integration Applied which explain the long term relationship exist till the order of lag, the lags are used as above table depicts the Trace Statistics and Eigen value both are significant at no lag presently means at current time, and at first order (1) there is also long term co-integration (2) order and but at most three (3) the variables are ratios are not co-integrated as Probability is 0.185 with Trace value 1.75, that is lower than critical value and hypothesis is rejected for the long term co-integration.

Model Analysis- Causation measuring predictability

Model 3: Granger Causality Test

Dependent variable: KSE-100

Impact Components: EPS, DY, BM

Method: Causation on EPS, DY and BM on KSE-100

This test is used for identifying that causation occurs between the variables or not. The empirical testing of co integration, in the long run, investigated that nexus of exchange rates-stock prices is not there. Now, it is proved by using other tests like VECM and Granger causality test but VECM cannot be feasible when the long run relationship is not found so it is understood that short run relationship is also not there.

Ho: There is no causality among financial ratios and predictability of stock returns.

H1: There is a causality among financial ratios and predictability of stock returns.

Table 10. The results of Granger Causality Tests

Pairwise Granger Causality Tests			
Sample: 2006M07 2016M07			
Lags: 2			
Null Hypothesis:	Obs.	F-Statistic	Prob.
DEPS does not Granger Cause KSE__100_ Stock Returns	118	1.19027	0.0307
DDY does not Granger Cause KSE__100_ Stock Returns	118	2.90540	0.0288
DBM does not Granger Cause KSE__100_ Stock Returns	118	4.520	0.0458

The Granger causality describes the relationship between independent and dependent variables and researcher has only measured the direct relationship no bi-directional or inter-causal relationship among the variables. The EPS is affecting the KSE-100 as F-Statistics is significant 1.19 and Probability is 0.03 which is less than 0.05 at 5% significance level. The DDY having the Positive impact in KSE-100 index 2.9 and probability is less than 0.05. The DBM is also significant and has causation with Stock returns as F-Statistics is 4.5 and probability is 0.04.

CONCLUSION

The researches examine the relationship and impact of measuring the stock market predictability with financial ratios. The Stock Market returns are changed due to change in macroeconomic conditions, change in investment and savings decisions across International borders. The cause for change in price is due to various reasons, the researcher terms these

as risk and return relationship for the investors. The Investors want to increase profitability from the investment and financial ratios are the power measurement to analyze the fluctuations in stock market predictability. The financial ratios also depict the variations and methods to evaluate the different relationships based on changes in stock market returns. The predictive power of Earning Yield evaluates laid down the value for change in stock returns. The Earning yield considers as independent for forecasting and addition to that the EY has positive relationship the relationship of Dividends yield and Market value has significant predictor in various emerging markets includes the Malaysia, India, and Pakistan.

The researcher performs the Econometric modeling by using the monthly indices of three major ratios includes the DY, EPS and BM ratios. The research evaluates the relationship through GLS Method which is most efficient measure to analyze the long term relationship by considering the Heteroskedasticity and homogeneity among the variables. The GLS results show the t-statistics is 5.5 and Durban-Watson is 2.2 which show the model is significant and effective for sample t of data and (t-1) also significant. The GMM explain the individual characteristics and impact of every ratio on returns that affects the DY and BM are not that much significant to capture the moments short term impacts but the EPS is most significant tools to capture the relationship. The Johnson Co-integration applied to analyze the long term relationship of variables and all three ratios are having strong relationship and F-Statistics of Granger causality also proves that the significant impact of three factors on stock market returns.

RESEARCH IMPLICATIONS

This study evaluates the predictability of stock returns by using the financial ratios. The financial ratios are strong measure as from the macroeconomic and financial variables and understand the risk and return relationship. The research critically examines the predictability of stock returns based on financial ratios that is useful as ratios are measured by the organization's profitability as they distribute dividends, earning price and Book-to-Market fluctuations. The BM ratio is the most significant predictor in economy in emerging economies as well as in Pakistan. The research is useful to evaluate the for the investor to predict the variations in stock returns and evaluate the investment decisions based on changes in ratios of organizations that surely impacts and changes shown in the performance of organizations.

FUTURE RESEARCH

The research captures the fluctuation of risk and returns relationship based on different approach followed in developed economies. This research is limited in its scope by capturing the predictability based on DY, EPS and BM ratios. The research results are similar to US, UK and Malaysian economies as BM is strong predictor of Stock Market Returns. The further research can be done on various aspects as measure the direction of variables with VAR, analyze the impact of different financial and macroeconomic variables on stock market returns. The further research can be done to evaluate the impact of diversified risk through portfolios and investor sentiments to analyze the impacts on investment decisions in stock returns and performance of Stock Market in Pakistan.

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PERCEPTIONS OF PROFESSIONAL INVESTORS ON USEFULNESS OF QUARTERLY REPORTS

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ABSTRACT

The purpose of this research is to determine the perception of professional investors regarding usefulness of key disclosure items of quarterly financial reports in Pakistan. For this purpose, a questionnaire having 36 key disclosure items has been used. 150 questionnaires were distributed for collection of responses. Kruskal-Wallis test and descriptive statistics were used for assessment of results. Findings show that the professional investors considered the income statement items as most important and useful items for investment decision-making process. Professional investors ranked some items of quarterly financial statements as most important items, some items as moderate and some items as useless items for decision-making process. But, there is no significant difference in the perception of professional investors regarding key disclosure items. The findings may be beneficial to regulators in preparing regulations on quarterly reports in Pakistan and may also helpful for users to increase their awareness and knowledge regarding quarterly reports.

Keywords: *Professional investors, quarterly reports, information disclosure, investment decisions*

INTRODUCTION

Original research papers by Edwards, Dominiak, and Hedges (1972) categorize professional investors as scanners, trackers and sophisticates on the basis of intensity of their analysis and their interests. Professional investors consist of financial analysts and fund managers in this study. Scanners considered as the biggest of the three user groups and over time most likely to include all of the persons of the groups of trackers and sophisticates. The major effort of scanners is cursory review of the interim period activities. However, interpretations and evaluations taking place from this review may lead to a company being included in a pool for more analysis, which may be performed by the same user. Trackers typically keep a systematic record of company's financial and operating activities.

Operating results for the interim periods and financial activities and positions are evaluated on regular basis. Much of the information required by the analysts in this group is not published on interim reports usually and must be obtained through other ways. Sophisticates normally perform a comprehensive analysis of the company's operations. The analysis performed by the sophisticates is usually followed by a comprehensive written report, a decision or recommendation according to the position held and their role. The published interim reports serve as a check to notice that nothing has been ignored in the analysis or in interviews of management.

Reliable and frequently financial reports help the investors and other users to understand the company's activities in a better way. The role of quarterly reports considered very important in this regard. There are different legislative requirements on company's management regarding issuance and preparation of quarterly reports. According to section 234 of company's ordinance 1984 of Pakistan, it is compulsory for listed companies to follow the requirements of international accounting standards for preparation of quarterly reports. Condensed balance sheet, statement of changes in equity, income statement, cash flow statement and selected explanatory notes are the minimum contents of interim reports as per Para 8 of the International accounting standard. The following details should be included at least, in notes of interim statements.

- A report confirming that similar accounting methods and policies of calculation as are utilized in the latest annual statements are followed
- Explanatory remarks regarding the cyclicity or seasonality of interim operational activities
- Amounts and nature of unusual activities and items
- Amount and nature of changes in estimates
- Issuance, repayment and repurchase of securities
- Details of Dividend declared
- Segment results of segment reporting
- Material events following the interim period
- Variations in composition of business
- Changes in contingent assets and liabilities

The quarterly reports may be presented through the registered post or by means of delivery either through agent or person against the acknowledgment of receipt. Directors are encouraged to provide director's

review about significant events and about different affairs of the company, especially include reasons of incurring losses during the period if any loss occurs and prospects of the company for the next quarter. If a company fails to fulfill any requirement of section 245 of company's ordinance, every director of the company including the chief accountant and chief executive would be accountable for fine lesser than 100,000 rupees and for an additional fine of 1,000 rupees for each day during which the continuation of default takes place.

Code of Corporate Governance (2002) imposed through regulations of the stock exchange have also prescribed the conditions to be pursued by the listed firms in order to prepare the quarterly accounts. Clause (xx) of the Code of Corporate Governance needs that the quarterly statements for listed firms should be printed along with the review of Director on matters and events of that quarter. All listed firms should confirm that the financial statements of the second quarter are subject to limited scope review by statutory auditors.

The purpose of the financial reporting mainly comes from the requirement of external users who depend on the information that managements of the companies provides. Financial reporting has the following objectives: financial reports should present useful information to creditors, investors and other users to make their decisions; financial reports should make available the data and information to assist creditors, investors, and others in order to calculate the amount, uncertainty, and timing of prospective interest or dividends. As their cash flows are linked to cash flows of the company, financial reporting would provide information to facilitate them in order to evaluate the amount, timing, and uncertainty of firm's future cash flows. Financial statements should also present information regarding the financial resources of the company, the claims on resources and the influences of situations and events that alter its resources or claims. Usually, the primary aim of financial reporting is to provide information about company's earnings and its components. Financial Reports should also provide information regarding how management performs its functions for stockholders. Management is not just responsible for the protection and control of company's resources, but also for their efficient utilization. The financial reports must disclose all the facts that may influence the reader's judgment (Analysis & uses of financial statements, 2006).

Various financial institutions including the investment bankers,

brokerage firms, banks and insurance companies need the services of financial analysts, for example, brokerage houses have their needs to support their registered representatives and investment bankers have their needs in the valuation of the companies and in the sale of new securities. It shows that the perception and the analysis of financial analysts are very important for investment decision making; in fact, institutional investors are treated as same up to some extent due to their vast resources. In the past, they were treated differently from the individual investors because companies often disclosed the important information only to some selective institutional investor, but now the situation changed when the regulation of full disclosure took place. Full disclosure regulation which applied to almost all the public listed companies' now attempts to regulate and facilitate the communication between the public companies and investment professionals. Companies are now prohibited from disclosing intentionally any nonpublic information to particular type of professional investors unless the company at the same time discloses the information to the general public. If an unintentional disclosure of material information is made by chance, the company must have to disclose that information quickly to the general public (Jones, 2010).

On the basis of above discussion, this study examines the professional investor's perception regarding the key disclosure items of quarterly reports in Pakistan. For this purpose, the professional investors are categorized into three groups as discussed earlier namely as scanners, trackers, and sophisticates on the basis of their interests and intensity of analysis. On the basis of these categories of professional investors, the examination of their perception regarding key disclosure items of quarterly reports takes place.

RESEARCH OBJECTIVES

The main objectives of this study are as follows:

- To address the usefulness of key disclosure items of quarterly reports according to the perception of professional investors.
- To find out whether there is a difference in the perception of scanners, trackers, and sophisticates regarding key disclosure items of quarterly reports.

RESEARCH STATEMENT

The purpose of this research is to determine the perceptions of professional investors regarding the usefulness of key disclosure items of quarterly financial reports in Pakistan.

RESEARCH HYPOTHESIS

H₁: Key disclosure items of quarterly reports are considered useful based on perceptions of professional investors.

H₂: There are no differences between the perceptions of scanners, trackers, and sophisticates regarding key disclosure items of quarterly reports.

LITERATURE REVIEW

Buzby (1974) indicated that the financial analysts considered the segmented reporting of income and sales as relative important items of disclosure. But, only a few companies provided these items in their financial reports. Several annual reports presented only a limited amount of information and disclosed many items as inadequately and insufficiently. The majority of companies did not provide the information and data regarding the segmented sales and income in their reports. Professional financial analysts not considered the forecasted earnings per share as a relatively important item of information disclosure. Furthermore, financial analysts considered the maintenance and repair expenditures as least important items as compare to the other items of information.

Another study conducted by Buzby (1975) observed the influence of assets size and listing requirements on the extent of disclosure. The extent of disclosure in financial reports associated positively with the size of assets but not associated with listing requirements. There are different reasons for the association between the assets size and the extent of disclosure such as large companies usually produce many products and make the distribution in huge geographical areas. As a result, they required a large volume of internal data as compared to small companies in order to keep management informed about the operating activities. The existence of such data and information for internal decision making may lower the cost of providing data and information to the general public because no significant additional efforts and costs are required. Another reason may be as adequate disclosure increased the investor's confidence and more likely it will improve the marketability of securities and make the external financing lesser costly, therefore, large companies attempt to disclose more information. It demonstrated that as the size of the company's assets increases, the disclosure level also increases accordingly.

Vergoossen (1993) stated that with respect to different parts of corporate financial reports, the consolidated profit and loss account

considered as the most important part by the financial analysts. The income statement showed the profit related information such as details about the dividend, earning per share and net profit, therefore, investment analysts focused more on the income statement. The report of the auditors and supervisory board's report have the lowest ranking. The policies of valuation, changes in valuation principles and the effects of these changes perceived as the most important items of information in the footnotes.

Lev and Zarowin (1999) documented a systematic decrease in the usefulness of financial information during the past 20 years, as evident by the weakening relationship between the capital market value and main financial variables such as the cash flow, earnings and book values. The increase in the rate of business change, the effect of business change and insufficient accounting treatment of changes and its effects considered as the main reasons for this decrease. The increasing rate of change of business associated with the decline of informativeness of earnings. It means that the increase in change of company's business primarily causes the decrease of the usefulness of financial information.

d'Arcy and Grabensberger (2003) stated that there is no correlation between timeliness of reporting and the disclosure level of information. It means that the timeliness and disclosure level not depended on each other and has no effect on each other. The disclosure level of Companies that provide a full set of statements was greater as compared to the companies that provide only reconciliation irrespective the companies follow the U.S. GAAP or IAS. It also showed that the level of disclosure of the companies that follows the U.S. GAAP was greater than those who follow the International Accounting Standards. Another major finding was that the increased information disclosure level in the quarterly reports is due to the monitoring of quarterly reports and additional enforcements since 2000. The additional enforcement system has enhanced the quality of disclosure of quarterly reporting information.

Ismail and Chandler (2005) investigated the level of disclosure of quarterly statements of companies in Malaysia. They examined the overall corporate disclosure in respect of the listing requirements of the stock exchange. It indicated that companies disclose all compulsory financial reports and related important explanatory notes as described by the stock exchange. In general, companies tended to just meet the minimum requirements of disclosure and seemed to present the minimum level of

disclosure. It also showed that the extent of disclosure associated positively with company's leverage. It means that a highly leveraged company discloses more information as compared to the companies having low leverage. There was insignificant relationship found between the extent of disclosure and the growth and profitability of the company.

Another study conducted by Ismail and Chandler (2005) in Malaysia in which they identified the professional investor's perception regarding the usefulness of quarterly financial reports. They identified that sophisticated investors considered the segmental information as the most useful item whereas scanners considered the net profit as the most useful item. The volume and classification of long-term liabilities, cash, profit/loss before financing cost, depreciation and amortization, exceptional items, minority interest, income tax and extraordinary items considered as most useful items by the trackers. On the other hand, a report whether or not the statement is audited, a report that similar accounting methods and policies of calculation as utilized in latest annual statements are followed and categorization of taxes for the financial year considered as the least important items by the professional investors.

Beest, Braam, and Boelens (2009) examined the value of financial reports in terms of basic qualitative features such as faithful representation and relevance and enhancing qualitative characteristics such as understandability, verifiability, timeliness, and comparability. Faithful representation considered as important fundamental qualitative characteristics, the information presented in the financial reports must be neutral and free from the material errors. Faithful representation measured through the neutrality, verifiability, freedom from the material errors and completeness, whereas, relevance generally explained the Predictive and confirmatory values. Understandability of reports seemed to increase when the information presented is characterized, classified, and presented concisely and clearly, whereas, verifiability considered as the quality of information that facilitates the validity and assures the users that the information is faithfully presented in the financial reports. Comparability indicated the information quality that enables the users to recognize the differences and similarities between the economic phenomena. It means that similar situation should be presented the same and different situations presented differently. Timeliness referred the availability of information to decision makers before it reduces the capability to influence the user's decisions; it referred the time the companies take to disclose the information.

Biddle, Hilary, and Verdi (2009) have determined the association of quality of financial reporting with investment efficiency. It showed that quality of financial reporting connected with over and under-investment, the quality of financial reporting helps the investor's to decrease the over investment and under-investment and ultimately reduced the risk of under or over investment. It showed that the financial reporting quality facilitates the investors in order to make their investment decisions in a better way. It showed that the predicted investment level determined on the basis of financial reports having high quality seemed to be lesser deviated and responsive to the macroeconomic conditions.

Alias (2011) explained the mandatory disclosure of interim financial reports of Malaysian companies. Companies disclosed different notes in quarterly and annual reports such as material changes in pre-tax profit, the board of director's opinion and comment on seasonality and cyclicalities etc. It was found that the companies usually seemed as poor in disclosing optional information as required by the disclosure requirement as they just try to meet the minimum requirements. Although the explanatory notes considered as mandatory, the amount of disclosure provided is at the discretion of the companies. Another study conducted by the Shukor, Nor, and Keliwon (2011) in which they examined the financial analyst's perception about the importance of accounting information items revealed in corporate financial reports when forecasting the firm's cash flow per share, earning per share and price per share. It showed that the items of income statements considered as the most important items for forecasting the firm's earning per share and price per share. Whereas items of cash flow statement considered as the most important items for forecasting the firm's cash flow per share. They showed that the items of cash flow statements perceived to be the least important for forecasting the firm's price per share and earnings per share.

Majumder, Rahman, and Rahman (2012) have described that key purpose of financial reports is to help investors in order to make their decisions regarding investment. They also discovered that investors in Bangladesh depended on interim reports mainly in order to make an estimation of the forthcoming annual results, current year prospects and earnings per share. Earnings per share and current year expectations considered as most important items among all other items of disclosure of interim reports. It also found that differences exist among perceptions of trackers, scanners, and sophisticates regarding the most and least useful items of interim reports as scanners considered the interest expense and

earnings per share as the utmost valuable items and turnover as the minimum useful item. Trackers considered the prospects of current year being the most significant item and considered amounts and classification of longer term liabilities as least useful items, whereas, sophisticate investors considered the earnings per share as the most useful item and considered the amounts and classification of longer term liabilities as the least important item for their investment decisions.

RESEARCH METHODOLOGY

This study investigates the Professional investor's perception on the usefulness of each of the 36 key disclosure items of quarterly statements. The selection of these 36 items is based on the requirements of company's ordinance, 1984 and code of corporate governance, 2002 and review of the literature. Questionnaire technique has been used in this regard. First of all, respondents were asked to indicate themselves as the scanner, tracker or sophisticate. The definitions of the scanners, trackers, and sophisticates as explained by the Edwards et al. (1972) were provided to them in making the right choice. Next, asked about their perceptions regarding the usefulness of these items by using a Likert scale of not useful at all= 1, not useful= 2, neutral= 3, useful= 4 and very much useful= 5. For every item, the means of the responses of the three groups of professional investors were calculated. The mean scores serve as a basis for ranking the usefulness of every item and for the comparison between the professional investors.

Data Collection

Data has been collected from the three major cities of Pakistan namely as Gujranwala, Faisalabad, and Lahore. 150 questionnaires were presented to the head of the assets management companies, stock brokering firms, Unit trust companies, and huge public fund organizations. Out of 150, 129 questionnaires were received and considered as usable for further analysis. Thus, the response rate was 86%. On the basis of these responses, Table 1 shows the distribution of scanners, trackers, and sophisticates.

Table 1. Distribution of Professional investors

Respondent	Frequency	Percent
Scanners	45	34.9
Trackers	44	34.1
Sophisticates	40	31.0
Total	129	100.0

RESULTS

Normality test

Table 2 shows the results of normality test which indicates that the sampled population does not show the normal distribution at 5% level of significance. As the sample population is not normal and the responses of scanners, trackers, and sophisticates are not dependent on each other. Therefore, the Kruskal-Wallis test is used in further analysis.

Table 2. Normality test of professional investor's perception regarding key disclosure items

Professional Investors		Kolmogorov-Smirnov		
Items		Statistic	df	Sig.
	Scanners	.095	44	.200
	Trackers	.171	44	.002
	Sophisticates	.156	40	.015

Table 3 shows the ranking of key disclosure items of quarterly financial reports on the basis of overall means score of responses of professional investors. It also shows the mean score of every item according to the responses of scanners, trackers, and sophisticates separately, the median, standard deviation and the values of Kruskal-Wallis test for each item.

Table 3. Professional investor's perception regarding the usefulness of key disclosure items of quarterly reports

Key items of disclosure	Scanners Mean (Rank)	Trackers Mean (Rank)	Sophisticates Mean (Rank)	Overall Mean (Rank)	Median	Std. deviations	K-w sig.
Details of Dividend declared	4.69(1)	4.57(1)	4.60(1)	4.62(1)	5	.487	
Net profit/ loss	4.36(2)	4.39(3)	4.58(2)	4.43(2)	5	.789	
(Loss)/ earnings per share- basic and diluted	4.22(3)	4.41(2)	4.45(3)	4.36(3)	5	.827	
Profit/loss before financing cost, amortization and depreciation, exceptional items, income tax, minority interest and extraordinary item	3.69(8)	3.86(6)	4.40(4)	3.97(4)	4	.874	.000

Perceptions of Professional Investors on Usefulness of Quarterly Reports

Turnover (sales)	3.87(5)	3.98(4)	3.95(7)	3.93(5)	4	.937	.937
Net profit/loss from ordinary activities	4.04(4)	3.70(10)	4.05(6)	3.93(5)	4	.840	.968
Profit/loss after income taxes before minority interests	3.69(8)	3.91(5)	4.08(5)	3.88(6)	4	.932	.067
A statement whether the report is audited or not	3.58(12)	3.73(9)	3.95(7)	3.74(7)	4	1.018	.244
Accumulated profit	3.78(6)	3.77(8)	3.52(12)	3.70(8)	4	.853	.532
Amount and breakdown of long-term assets	3.73(7)	3.82(7)	3.45(13)	3.67(9)	4	.920	.203
Explanatory comments about the cyclical or seasonality of interim operations	3.64(10)	3.61(12)	3.72(8)	3.66(10)	4	.980	.688
Reserve	3.62(11)	3.45(15)	3.68(9)	3.58(11)	4	.949	.891
Cost of sales	3.42(15)	3.41(17)	3.68(9)	3.50(12)	4	.985	.988
Share capital	3.45(14)	3.66(11)	3.22(15)	3.45(13)	4	.910	.825
Director report	3.22(20)	3.45(15)	3.65(10)	3.43(14)	4	.951	.065
Amount and nature of exceptional items	3.16(22)	3.57(13)	3.60(11)	3.43(14)	4	.967	.062
Material events subsequent to interim period	3.29(18)	3.27(19)	3.68(9)	3.40(15)	3	.972	.023
Amount and breakdown of long-term liabilities	3.42(15)	3.41(17)	3.35(14)	3.40(15)	3	.922	.969
Changes in contingent assets/liabilities since last annual balance sheet date	3.31(17)	3.25(20)	3.52(12)	3.36(16)	4	1.059	.221
Cash flow from operating activities	3.42(15)	3.48(14)	2.98(19)	3.30(17)	3	1.163	.430
Changes in composition of enterprise during the period	3.29(18)	3.41(17)	3.20(16)	3.30(17)	3	.825	.260
Amount and nature of extraordinary items	3.07(23)	3.23(21)	3.52(12)	3.26(18)	3	1.027	.200
Cash flow from financing activities	3.38(16)	3.30(18)	3.08(18)	3.26(18)	3	1.063	.792
Amount and breakdown of current assets	3.67(9)	3.18(22)	2.75(21)	3.22(19)	3	1.152	.067

Cash flow from investing activities	3.22(20)	3.16(23)	3.15(17)	3.18(20)	3	1.142	.615
Investments in quoted securities at cost, carrying value and market value	3.18(21)	3.27(19)	2.98(19)	3.15(21)	3	1.039	.193
Issuance, repayment, and repurchase of equity and debt securities	2.84(27)	3.09(24)	3.45(13)	3.12(22)	3	1.087	.322
Amount and breakdown of current liabilities	3.42(15)	3.02(27)	2.85(20)	3.11(23)	3	1.140	.211
Off balance sheet financial instruments	3.04(24)	2.91(29)	3.15(17)	3.03(24)	3	1.023	.353
Segment results of primary basis of segment reporting	2.93(25)	3.07(25)	3.08(18)	3.02(25)	3	.795	.825
Interest expense	3.49(13)	3.05(26)	2.40(24)	3.00(26)	3	1.364	.066
Administrative, Selling, distribution expenses and other expenses	3.24(19)	2.98(28)	2.75(21)	3.00(26)	3	1.173	.244
Taxation	2.76(28)	3.43(16)	2.20(26)	2.81(27)	3	1.223	.011
Nature and amount of changes in estimates	2.67(29)	3.02(27)	2.60(22)	2.77(28)	3	1.079	.434
A report that the similar accounting methods and policies of calculation as utilized in the latest annual statements are followed	2.87(26)	2.77(31)	2.58(23)	2.74(29)	3	1.141	.174
Depreciation and amortization expense	2.84(27)	2.86(30)	2.32(25)	2.69(30)	3	1.211	.224

Table 4. The overall sig. the value of Kruskal-Wallis regarding Key disclosure items

Perception of Professional investors regarding the usefulness of key disclosure items	K-W sig. (overall)
Key disclosure items	0.915

Source: Author's Calculations

Table 3 ranks the key disclosure items of the quarterly reports according to the perception of professional investors. It shows the overall mean score of every item according to the professional investor's perception as a whole and also individually by the scanners, trackers, and sophisticates. It helps in clearly identifying the importance of items according to the intensity of analysis performed by the professional investors. The mean scores show that some items are more useful, some items are useful moderately and some items are not useful for the decision making process. The median scores are 3, 4 and 5 which shows that some items are much useful, some items are useful and about some items, professional investor's show the neutral response. Table 3 shows that the detail of dividend declared is considered as the most important item according to the perception of professional investors. It shows that the top seven items namely as details of dividend declared, Net profit/loss, (Loss)/earnings per share- basic and diluted, Profit/ loss before financing cost, amortization and depreciation, exceptional items, minority interest, extraordinary items, income taxes, turnover (sales), Net profit/loss from ordinary activities and Profit/loss after income taxes before minority interests are from the income statement. It indicates that the income statement is considered as the most important statement for the investment decision making process of the professional investor. On the other hand, depreciation and amortization expense, a report that the similar accounting methods and policies of calculations utilized in latest annual statements are followed, amount and nature of changes in estimates and taxation are not considered as useful items for investment decision making process. Professional investors pay no attention to these items for their decisions.

Table 3 also shows that there are some slight differences in the perception of scanners, trackers, and sophisticates regarding the usefulness of the above-mentioned items. Details of dividend declared and net profit/loss are considered as the most useful items of information according to the perception of scanners and sophisticates. Trackers consider the details of dividend declared and (loss)/ earnings per share- basic and diluted as the most important and useful items. Scanners consider the nature and amount of changes in estimates as least important item for the process decision making regarding investment. On the other hand, a report that the similar accounting methods and policies of calculation as utilized in latest annual reports is followed and taxation are considered as the least important items of information respectively by the trackers and sophisticates. There are important variations among the perception of

professional investors related to details of dividend declared, Profit/ loss before financing cost, amortization and depreciation, exceptional items , minority interests, income taxes and extraordinary items, material events subsequent to interim period, taxation, net profit loss and loss/earnings per share- basic and diluted. There is no important variation among the perception of professional investors regarding other items of disclosure.

Table 4 depicts that there is no significant difference among the perception of professional investors regarding the key disclosure items as a whole. The overall value of K-w sig. is 0.915 which is greater than 0.05 i.e. at 5 percent level of significance. It depicts that there is no significant difference among the perception of professional investors regarding key disclosure items of quarterly reports.

DISCUSSION AND CONCLUSION

This research is about to determine the effectiveness of key disclosure items of quarterly reports in Pakistan by using the perception of professional investors. The first objective is to address the effectiveness of key disclosure items according to the perception of professional investors. The second objective is to find out whether there is a difference in the perception of scanners, trackers, and sophisticates regarding key disclosure items of quarterly reports.

Findings indicate that professional investors considered the details of dividend declared as the most important item of disclosure. Professional investors ranked the items of income statement greater than as compared to the items of other statements and hence, considered the income statement as the most important statement as compared to other financial statements. On the other hand, depreciation and amortization expense, a report that similar accounting methods and policies of calculation as utilized in recent annual reports are followed, nature and amount of changes in estimates and taxation are not considered as useful items for investment decision making process. Professional investors pay no attention on these items in their investment decisions. It also indicates that there is no significant difference among the perception of professional investors regarding the key disclosure items of quarterly reports. This study may be helpful for preparation of quarterly reports and understanding the importance of each item. This may also be helpful for the policy makers to recognize the perception of professional investors and the usefulness of quarterly reports while making the new policies regarding the financial reports.

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IMPACT OF EMPLOYEES' VOICE ON EMPLOYEES' EFFECTIVENESS

Nawaz Ahmad, Adnan Rizvi, and Syeda Nadia Bokhari

ABSTRACT

The focus of this research study is to identify the impact of employee voice mechanism on employee effectiveness factor in the corporate sector of Karachi. The three effectiveness factors under study are employee commitment, employee engagement, and employee motivation. Although the impact of employee voice has been researched by numerous scholars, yet it has not been explored in the context of Pakistani market. A sample 172 employees belonging to a diverse set of corporate sectors was studied for this research. Primary data was gathered with the aid of a questionnaire. Regression analysis revealed that employee voice had a positive impact on the three effectiveness factors thus indicating that it plays an important role in influencing employee commitment, engagement, and motivation.

Keywords: *Employee voice, commitment, engagement, motivation*

INTRODUCTION

The concept of employee voice was coined by Albert Hirschman in the 1970's where he defined it as "taking actions for altering the dissatisfying work situations/status quo" (Hirschman, 1970). He furthered the concept by introducing the term 'exit' which implied employees leaving the organization in dissatisfying conditions. This concept contends that employees in dissatisfying situations either raise their voice and concerns to the management or if unheard, simply disconnect themselves from the organization.

Traditionally employee voice was channeled through collective bargaining agents and union representation. With the progression of time and the development in the human resource management field, alternative forms of representation such as non-union and direct forms of voice gained momentum (Bryson, 2004). While trade unions are formal systems of indirect representation of union members, direct voice has been considered as a superior form of employee's expressing their ideas opinions and

concerns (Rees, Alfes, & Gatenby, 2013). It helps remove barriers among employers and employees and allows supervisors to better cater to the diverse needs of individual employees.

The term 'employee voice' has been associated with grievances on an individual or collective basis which restricts the conceptualization of the term (Gollan, 2001). This concept limits employees from practicing their rights and participating and contributing in organizational decision making. According to Pyman, Cooper Tiecher & Holland (2006), employee voice can include diverse avenues such as "vocalization of individual dissatisfaction, collective representation, and organization, upward problem solving, engagement and contribution to management decision making and demonstration of mutuality and cooperative relations". Morrison et al. (2011) referred to employee voice as the articulation of ideas, opinions, and suggestions with the intention of improving departmental or organizational functioning. Folger (1977) adds that employee voice is an organization-wide mechanism whereby a set of procedures or rules permits employees who feel impacted by a management decision to communicate information concerned to that decision.

In any given organization, the effort of its human resource plays a vital role in contributing to the success of the organization. Organizations need to have a sound and credible internal communication system in place, such that it addresses its employee's concerns, recommendations, opinions, and advice. A two-way direct communication is essential for employers as well as employees (Freeman & Medoff, 1984). The absence of a voice system in an organization may lead to low level of motivation and lax attitude among employees thus affecting individual and overall organization efficiency and effectiveness. The efficacy of the employee voice hinges upon sharing of information within the organization. A well-informed employee with an opportunity to raise his/her voice is in a better position to enhance his/her engagement level with the organization. Only by giving employees opportunities to raise their voices, employees can become more engaged. If employees acknowledge that their organizational policy is employee voice friendly and builds trust, they can organize an effective partnership. The effects of employing an employee voice approach and bringing in modes of communications for employees are significant and an evidence for employees that their voice is valued and understood across the organizational hierarchy.

As voice allows an opportunity for employees to express their opinions

and cements the belief among them that their efforts and contributions are valued, it creates a certain degree of regard for the leadership of an organization, thus creating a direct link between voice and employee trust in management. Organizations that honor their obligations towards their workforce result in the enhancement of and sense of loyalty and commitment of employees for their organization. With higher trust levels, employees are more motivated and are inclined towards fulfilling their commitment and obligations, thus enhancing the level of job engagement (Rousseau, Sitkin, Burt, & Camerer, 1998).

The concept of employee voice was traditionally linked with unions and collective bargaining. More recently, it broadly refers to how employees participate by raising their concerns about how things run within their organization. This may be achieved through indirect means such as trade unions and collective bargaining or through a more direct channel.

Employee voice has been generally associated with 'grievances'. Hirschman (1970) referred to it as the ability to express dissent or discontent. Dissent is the intrinsic human ability to complain, protest. This approach limits the conceptualization of the term. Voice can be utilized in making constructive suggestions for change and recommending reforms in standard procedures adopted by the organization. Organizations that value employee voice witnessed increased levels of organizational commitment, employee engagement, and employee motivation. This is due to the fact that employees believe that the organization values their input and that they are able to influence and contribute to organizational decision making. This research study aims at understanding the impact of employee voice mechanism on employee's commitment, engagement, and motivation in a diverse set of corporate sectors in Karachi where employees were able to communicate their concerns regarding management decisions such as organizational restructuring, privatization and employee layoffs. An attempt is made in gauging the impact of employee voice on employee commitment, employee engagement, and employee motivation.

RESEARCH HYPOTHESES

H₁: Employee voice does not affect employee commitment towards the organization.

H₂: Employees' Voice does not affect employee engagement.

H₃: Employees' voice does not affect work motivation.

LITERATURE REVIEW

The literature review is further divided and explained by following subheadings.

Employees' Voice

Employees' voice has been an infrequent researched and an important issue among the Human Resource Management in general and Employee-Employer relation in particular. Generally, employee voice refers to the opportunity for employees to voice their concerns or opinions to discuss or give suggestions about their issues or changes with the employers (also includes salary, environment, and other organizational factors). In the past, employees had raised their voices through other conventional means such as through collective bargaining agents or employee unions.

Work on Employee voice was initiated by Albert Hirschman when he wrote a book "Exit, Voice, and Loyalty" in 1970. In his book, he introduced the term "Voice of employees" and further defined in subchapter "responses to declining in Firms, Organizations, and States" that a concern exists if there are "repairable lapses" in an organization or issues that would be solved with an appropriate level of information and responses. Hirschman (1970) stated that over time, organizations tend to decline gradually and lose their efficiency and effectiveness. He proposed two countering forces which can reverse such situations, known as "Desertion or Articulation" or "Exit or Voice"

Previous research on employee voice has shed significant light on the factors of employee's voice and its mechanism and its impact on how it can prove to be effective for an organization. These studies propose a varying range of contextual and personal factors which explain employees' participation in voice.

"Voice of Employee" is directly concerned with the concept of 'participative management'. Stueart & Moran (2007) in their study concluded that participative management empowers employees through team building and hence directly participating in such activities gives them the opportunity to directly be part of the decision-making process. They further established a positive link between employee empowerment and better innovation, flexibility, customer service and creativity.

Detert & Burreis (2007) researched into the relation between employee voice and leadership styles among restaurant chains. Their research

indicated that an open attitude is more progressively attributed to employee voice, employee satisfaction, and job demography. However, their relationship showed to be intervened by subordinate insights of psychological safety, depicting the significance of supervisors in subordinate evaluation of the risks of raising voices. Moreover, supervisor/leadership behavior tend to have the highest impact on the employee voice behavior of the star performing employees.

Morrison & Milliken (2000) stated that managers/supervisors high in the hierarchy have a critically significant role in engaging employees' into raising voice. Whenever supervisors portray negative intrinsic attitude concerning employee voice behavior (such as subordinates' raising voice is because of self-interest, he himself knows the best, and that employee voice is dissent), these attitudes lead the creation of systems and mechanisms that promote organizational culture of silence such as centralized decision making. They also concluded that managers have a fear of getting a negative response from their subordinates as employee voice. They, therefore, try to avoid themselves of such embarrassment as they feel vulnerable and hence try to suppress their subordinate's voice.

When managers cultivate high-level of relation with their subordinates (Botero & Van Dyne, 2009; Gao, Janssen, & Shi, 2011; Van Dyne, Kamdar, & Joireman, 2008), and when they extends positive leadership conduct for employee voice like guidance and openness, transformational leadership, and ethical leadership (Detert & Burris, 2007), the subordinate employees are likely to enhance their voice behaviors. This is owing to the fact that managers tend to make their subordinates feel obligated to reciprocate the positive treatment they receive (Podsakoff et al., 2000; Van Dyne et al., 2008). Also the Managers allow their juniors to inculcate perceptions of psychological well-being (Walumbwa & Schaubroeck, 2009), sense of influence (Tangirala & Ramanujam, 2012), and relation with the manager and the organization as a whole (Liu et al., 2010), which resultantly adds to positive employees' voice behavior.

Organizational Commitment

Existence and implementation of voice mechanism in organizations lead to low employees turnover (Spencer, 1986). Spencer (1986) conducted a number of studies on this topic. In his initial study, he came to the conclusion that the more opportunities for employees to raise voice against dissatisfaction, the more probability that employees will be

retained in the organization. In the second study, he postulated that high level of voice mechanism in the organization leads to higher expectations among employees that their issues and concerns will be addressed.

(Zehir & Erdogan, 2011) found that a relation exists between employee voice and leadership style. Their research findings were that performance of employees and organizational commitment are related to leadership behavior. They concluded that employee voice or silence per se directly impacts the performance of employees and their commitment towards the organization.

Batts, Colvin & Keefe (2002) observe view that employee voice mechanisms and organizational practices predict firm-level quit rates. They researched the predictive power of these factors using data from a 1998 telecommunications industry. As a conventional voice mechanism, they found that presence of employee union projects lower quit rates, as they control factors such as compensation and other practices of human resource that may be influenced by collective bargaining.

Freeman (1980) studied that employees which are committed with the unions within the organization have lesser probability to leave the organization because the respective unions give them a formal mechanism for raising their voices. Thus in organizations where there are formal employee voice mechanism and grievance procedures, employees remain engaged for the organization increasing organizational commitment level among them. Similar studies were conducted by Boroff and Lewin, (1997) which contends that that employee loyalty level determines to choose between voice or exit. Freeman and Medoff (1984) took the pluralistic approach while evaluating the Employee voice in the organizations and concluded that collective bargaining agent's or CBA's, as known as, provide more economically influential solutions to employees for exiting or raising voice because of combined decision making.

Employee Engagement

The literature on employee engagement is widely available as a core factor that impacts the work-related behavior/attitudes (Christian, Garza & Slaughter 2011). Definition of engagement as noted by Macey & Schneider (2008) is based on the assumption that 'pro-social' employee activity can lead to favorable effects, with benefits for both employees and organizations.

Rees, Alfes, & Gatenby (2013) studied the relation between employee voice and engagement. They found that perceptions of employee's voice behavior, which aims for improvement in organization, depicts direct and indirect impact on employee engagement levels. Their analysis revealed that relation between perceptions of employee voice and engagement is intermediated by employee trust in senior management and the employee–line manager relationship.

Extending opportunities for raising voices to employees can lead to more affirmative attitudes towards management (Dietz, Wilkinson, & Redman, 2009). Research on employee voice suggest that employees who believe to have the opportunity of raising voice effectively convey their suggestions/concerns/opinions to the management and are more likely to portray a optimistic attitude and show high performance levels (Purcell, Kinnie, Hutchinson, Rayton & Swart 2003; Robinson, Perryman & Hayday 2004).

Studies also depict that whenever employees assume that they can influence decisions, by raising their voice to lead to increased levels of organizational engagement (Farndale, Van Ruiten, Kelliher aHope-Hailey 2011).

Truss et al. (2006) contend that the main factor of employee engagement is having the opportunity to raise their opinions upwards.

Employees' Motivation

According to Maslow's needs hierarchy, employees tend to have five levels of needs: physiological, safety, social, ego, and self- actualizing (Maslow, 1943). Maslow stated that needs at lower level had to be fulfilled before the next level need so as to motivate employees. Herzberg segregated motivation into two factors: Intrinsic and Extrinsic (Herzberg et al, 1959). Intrinsic factors included recognition, results in job satisfaction whereas extrinsic factors include factors such as salary structure/job security, results in job dissatisfaction.

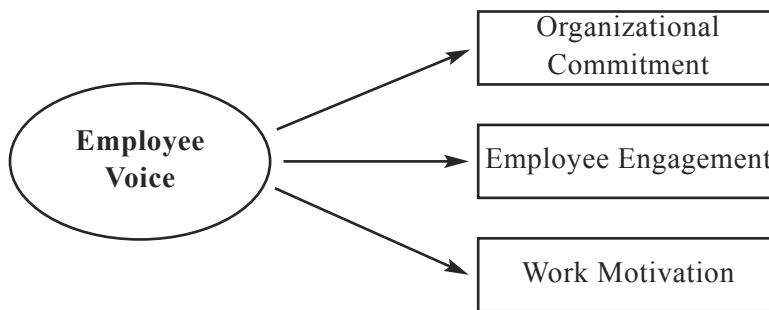
Vroom's theory assumes that employees struggle to lead to better performance. Performance, in turn, leads to some rewards (Vroom, 1964). These rewards could be positive or negative. Positive rewards lead to motivated employees whereas negative rewards lead to a lesser likelihood of employee motivation.

Adams' theory postulates that employees work for equality between themselves and other group workers. Equality is attained when the

employee outcomes over inputs ratio is equal to the employee outcomes over inputs ratios of other employees (Adams, 1965).

Skinner's theory contends that employees' behavior which leads to affirmative results will be repeated again while behaviors that lead to undesirable outcomes will not be repeated (Skinner, 1953). Thus supervisors should positively support employee behavior that results in positive outcomes and discourages employee behavior that leads to negative outcomes.

CONCEPTUAL FRAMEWORK



There exist one predictor that is Employee voice and three Criterion Variables that are Organizational Commitment, Employee Engagement and Work Motivation which are the components of Employees' Effectiveness.

RESEARCH METHODOLOGY

Research Instrument

A questionnaire was adopted from different studies based on variables under consideration. This study focuses on four variables where employee voice is the independent variable and organizational engagement, organizational commitment, and employee motivation are the dependent variables. The different construct and their related measures are discussed as follows:

Employee Voice. The scale adopted for employee voice consist of 5 item. This scale is a pioneering work of Van Dyne and LePine's (1998), those who have themselves modified this scale from Van Dyne, Graham, and Dienesch (1994) scale of Advocacy participation.5 point rating of Likert is associated with these so that responses would be gauged with ease.

Employee Engagement. The scale for employee engagement is adopted from Rees et.al (2013) research, the items of this scale although 5, addresses

three type of Employee engagement. Intellectual engagement gauges the level to which individuals are involved cognitively in their activities related to work. Emotional items are related to effective engagement and communication with colleagues related to work improvements are part of social engagement. An average of these items is taken out so that an overall score of employee engagement could be generated. Like employee voice, these responses are also taken through 5 points Likert scale.

Organizational Commitment. The 5 items of organizational commitment scale are adopted from organizational commitment questionnaire as proposed by Mowday et al (1979). These questions are based on two types of organizational commitment namely continuance commitment and affective commitment. Responses are gauged through 5 point level of agreement of Likert scale.

Work Motivation. Again 5 item scale for Work Motivation is taken from Akinboye (2001) work motivation questionnaire inventory. The homogeneity of the questionnaire is maintained in the last by gauging the responses by 5 points Likert scale.

Sample, Participants and Data Collection

The study was initially based on the sample size of 200 employees belonging to different corporate sectors of Karachi using convenience sampling technique whereby 172 responses were obtained, thus the response rate was 86%.

Data Analysis

Descriptive statistics is used to analyze the respondent's demographics whereas inferential statistics is used to test the hypothesis. The impact of the independent variable on the three dependent variables was gauged using the regression analysis.

RESULTS

Table 1. Construct Reliability

Constructs	Cronbach Alpha	No of items
Employees' Voice	0.933	5
Organizational Commitment	0.942	5
Employee Engagement	0.940	5
Work Motivation	0.968	5

The reliability statistics, Cronbach Alpha, of the all the constructs was above the threshold limit of 0.6-0.7 hence within acceptable range depicting instrument consistency and reliability. The overall reliability statistic for the instrument is 0.947.

Table 2. Participant’s Profile

	Number	Percentage
Male	138	80
Female	34	20
19 to 34 Years	154	90
35 Years and beyond	18	10
Bachelor's or below	121	70
Masters or above	51	30

To establish the normality of the data descriptive statistic has been generated that is presented at below table.

Table 3. Descriptive Statistics

	Mean	Std. Dev.	Skewness	Kurtosis
Employee Voice	3.538	0.8301	-1.027	1.050
Organizational Commitment	3.533	0.8334	-0.813	0.679
Employee Engagement	3.584	0.8164	-0.893	0.625
Work Motivation	3.581	0.8419	-0.8419	0.685

In the above Table 3 Employee Voice (Mean=3.538, SD= 0.8301) has the highest skewness 1.050, and Organizational Commitment (Mean = 3.533, SD=0.8334) possess lowest skewness(0.813). While Kurtosis for all the items is +positive, the greatest for Employee Voice (Mean = 3.538, SD= 0.8301) is 1.1050 and the lowest kurtosis is for employee engagement (Mean = 3.584, SD=0.816) which is 0.25. As per the table, the construct is within the parameter range of +/- 3.5 hence it is normal tendency of the data is established.

Table 4. Correlation Statistics

	Employee Voice	Organizational Commitment	Employee Engagement	Work Motivation
Employee Voice	1			
Organizational Commitment	.749	1		
Employee Engagement	.731	.897	1	
Work Motivation	.715	.873	.935	1

The above table depicts that the above-mentioned relations were significant at Confidence Interval of 99% (2-tailed). The correlation of Organizational Commitment was the strongest with $r(172) = 0.749$, $p = 0.0 < 0.01$, while there was no weak correlation found. Moreover, the correlation also depicts that the factors are unique and distinguishing (Hair Jr. et al, 2010).

Regression Model

This segment summarizes the regression results for the all the factors of the research study. The hypothesis that the employee's voice has the impact on employees effectiveness was tested via regression analysis.

Employee Voice and Organizational Commitment

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.731 ^a	.535	.532	.57008

a. Predictors: (Constant), Employee_voice

The basic correlation between Employee Voice and Organization Commitment is .731 that is an indication of high correlation. The change that could be brought upon by Employee Voice in Organization Commitment is 53.5%.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.156	1	63.156	194.331	.000b
	Residual	54.924	169	.325		
	Total	118.080	170			

a. Dependent Variable: Organizational_Commitment

b. Predictors: (Constant), Employee_voice

The Model fitness is appropriate since the sig value of ANOVA table is below 0.05.and F statistics is also greater than 4 hence the variable and data are fit for analysis.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.936	.191		4.888	.000
	Employee_voice	.734	.053	.731	13.940	.000

a. *Dependent Variable: Organizational_Commitment*

The Unstandardized beta coefficients depict that for a unit change in Employee Voice, the Organizational Commitment would increase by .734 units which is significant at sig value less than 0.05 and t statistics greater than 2.

Conclusively the outcomes of the regression Analysis depicts that the predictor employee voice explains 53% of the variance (R²=0.534, F (= 194, p<.01). It was also found that employees voice ($\beta = 0.734$, p<.01) significantly predicts Organizational Commitment effect.

Employee Voice and Employee Engagement

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.749 ^a	.561	.559	.54244

a. Predictors: (Constant), Employee_voice

The basic correlation between Employee Voice and Employee Engagement is .749 that is an indication of high correlation. The change that could be brought upon by Employee Voice in is Employee Engagement 56.1%

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	63.587	1	63.587	216.106	.000b
1	Residual	49.727	169	.294		
	Total	113.314	170			

a. *Dependent Variable: Employee_Engagement*

b. Predictors: (Constant), Employee_voice

The Model fitness is appropriate since the sig value of ANOVA table is below 0.05.and F statistics is also greater than 4 hence the variable and data are fit for analysis

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.977	.182		5.365	.000
	Employee_voice	.737	.050	.749	14.701	.000

a. *Dependent Variable: Employee_Engagement*

The Unstandardized beta coefficients depict that for a unit change in Employee Voice, the Employee Engagement would increase by .737 units which is significant at sig value less than 0.05 and t statistics greater than 2.

Conclusively the outcomes of the regression Analysis depicts that the predictor employee voice explains 56% of the variance ($R^2=0.561$, $F(=216, p<.01)$). It was also found that employees voice ($\beta = 0.737, p<.01$) significantly predicts Employee Engagement.

Employee Voice and Work Motivation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.714 ^a	.510	.507	.59159

a. Predictors: (Constant), Employee_voice

The basic correlation between Employee Voice and Work Motivation is .715 that is an indication of high correlation. The change that could be brought upon by Employee Voice in Work Motivation is 51.2%.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	61.545	1	61.545	175.851	.000b
1	Residual	59.147	169	.350		
	Total	120.692	170			

a. Dependent Variable: Work_Motivation

b. Predictors: (Constant), Employee_voice

The Model fitness is appropriate since the sig value of ANOVA table is below 0.05 and F statistics is also greater than 4 hence the variable and data are fit for analysis.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.016	.199		5.114	.000
	Employee_voice	.725	.055	.714	13.261	.000

a. Dependent Variable: Work_Motivation

The Unstandardized beta coefficients depict that for a unit change in Employee Voice, the Work Motivation would increase by .726 units which is significant at sig value less than 0.05 and t statistics greater than 2.

Conclusively the outcomes of the regression Analysis depicts that the predictor employee voice explains 51% of the variance ($R^2=0.512$, $F(=177, p<.01)$). It was also found that employees voice ($\beta = 0.722$, $p<.01$) significantly predicts Work Motivation among employees.

DISCUSSION

Our research is in strong support of the employee voice to increase employee effectiveness. Research of Robinson et al (2004) confirms our findings, basing its survey on Great Britain's NHS 10000 employees. According to this research when the employees' feel that they are being valued, involved in critical organizational decisions, are able to freely voice their ideas, found opportunities for career development and perceives organizational concerns as regard to their wellbeing and health, all such components would make them increase their engagement with organization.

Research of Rees et al. (2013) illuminated that there exist not only a direct but also an indirect linkage between employee voice and its engagement with work when it is tested to bring improvements in the work group performance. For analysis of this relationship, two organizations were selected. An intervening role of trust developed by employees related to higher level management and supervisor-subordinate relationship is established. These findings also support and backup our results related to existence of tie between employee voice and its engagement with organization

The results of our research are also indicative of the direction that greater the organization feels that its employees should be provided with the platform to highlight the matters of their discomforts the greater would be the probability that employees remain committed to the organization. Similar findings are reported by Spencer (1986). His research reported a lower turnover among the registered general hospital nurses who were given chance to voice their dissatisfaction. He controlled a lot many regressors that are associated with employee turnover in order to maximize the utility of its research. He also suggests that organization with numerous employee voice raising mechanism may be associated with high expected and perceived problem solving approach adopted within that organization.

If the organization wants to increase its employee commitment and reduce the chances of its turnover then organization needs to install sophisticated procedures so that employee could spotlight grievances and get adequate solutions. Those who leave their employment without bringing matters on table or with no attempts to alter the dissatisfactory conditions give organization no signals that there exist something of worst nature. The organizations that

attempt to listen, motivates, and provide appropriate platform for employees to come up with solutions to the worst could be effective enough to retain its most precious asset of human resource .in fact it could foster retention policies by gaining information that could never be available if the employees would leave silently(Freeman, 1976; Hirschman, 1976),

Employee voice is also positively associated with work motivation like other effectiveness variables. One of such conclusions is drawn by Alfayad & Mohd Arif (2017). They conducted a research on 300 employees who belong to a non-managerial group. The findings of the research are again consistent with our research findings that when organization gives recognition to the voice of its employees there excels a motivative culture which in turn accelerates the level of satisfaction of employees. looking at such findings an organization should encourage its employee to raise their voice in matters of concerns so that efficiency and satisfaction are encouraged.

The findings of our research are consistent with many expert's opinions and a large number of researchers and management gurus are advocate of employee voice and its effectiveness within individual and organizational context. Although fostering a climate that encourages openness in communication is crucial in organization. Defense mechanism lying in every individual makes him careful while they deal with people high up in authority position. Hence each information that is received by higher authorities is passed through multiple levels of filtration to make it reach level of appropriateness (Knight, 2014).

CONCLUSION

All the variables highlighted in the hypothesis were found out to be, positively related to employees voice. Hence in organizations where, employees are given opportunity to raise their voice and convey their concerns, suggestions or opinions, those organizations will have increased level of employee effectiveness and efficacy. As proved by the results, employee voice directly impacts the organizational commitment, employee engagement, and work motivation.

STUDY LIMITATION AND AREA OF FUTURE RESEARCH

This research was conducted in the corporate sector of Karachi city only. Not all variables that impact employee effectiveness were covered in this research. Further dimensions of employee voice need to be explored in the context of Pakistan. Furthermore, research needs to be conducted in various geographical areas including Semi-Urban and Rural areas for better understanding of this topic.

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IMPACT OF WORKING CAPITAL MANAGEMENT ON FIRM PROFITABILITY: EVIDENCE FROM SCANDINAVIAN COUNTRIES

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ABSTRACT

The intention of this research is to examine the impact of working capital management (WCM) on firm's profitability. We take our sample from major developed Scandinavian states (i.e., Denmark, Norway, and Sweden), during the period 2003-2015. We measure WCM as receivable days (RADs), inventory days (IDs), payable days (PADs), cash conversion cycle (CCC), current ratio (CR) and working capital (WC), and firm's profitability as return on assets (ROA). Additionally, we also use several firm levels (firm size, age, leverage) and country level (GDP growth, financial crisis) control variables to estimate robust outcomes. After controlling aforesaid indicators, we found adverse impact of inventory days (IDs), receivable days (RADs), payable days (PADs), and cash conversion cycle (CCC) on firm's profitability (ROA). These outcomes specify that extensive recovery periods effect on funds availability and supply of material, which subsequently impact on firm operations and profitability. Furthermore, working capital (WC) and current ratio (CR) are positively related to firm's profitability (ROA) that delineates the importance of excessive current assets to foster firm's profitability (ROA).

Keywords: *Working Capital Management (WCM), Firm's Profitability, Scandinavian Countries*

INTRODUCTION

Profit maximization and sale growth of any enterprise relay on cost management as well as production process. These determinants indicate enterprise efficiency and market denomination. There are numerous factors which participate in enterprise profitability, but among all working capital management (hereafter WCM) is a unique. It specifies highest portion among enterprise expenses, particularly manufacturing enterprises. According to Uchenna, Mary, and Okelue (2012), working capital

represents 30% to 40% of enterprise overall investment. It is required to maintain WC (working capital) at an optimum point to evade any deficiency and trouble in managing smooth business operations Harris (2005). Managing WC is a crucial element in keeping liquidity and fostering enterprise profitability.

Investment in WC is a part of firm's total assets (Appuhami, 2008), which can be broadly explained as a variance among total current assets and total current liabilities that donates enterprise financial health. Efficient WCM includes controlling and planning of current liabilities and current assets, to maintain stability among profitability and liquidity. As explained by Harris (2005), WCM is a way to finance short term monetary requirements through efficient management of current liabilities and current assets. Firm's basic objective i-e maximizing wealth can only be attained by creating a balance between aforementioned indicators. Thus WCM can be deliberated as a key element to explain firm performance by maintaining liquidity for daily actions (Van Horne & Wachowicz, 2008).

WC is an essential pre-requisite for the success of firms (Ghosh & Maji, 2004). It is also among the seven factors elaborated by Rappaport (1986), which determine shareholder's wealth. The key objective of WCM is to guarantee that enterprise is capable of fulfilling its short run obligations and covers its operating expenses within the time period. However, WC mismanagement may lead to monetary crunch, surges risk and cuts profitability (Ukaegbu, 2014). Due to the substantial amount of WC investment and the importance of WC policy in determining firm's risk, WCM has an impact not only on firm's accounting performance but on market performance as well (Abuzayed, 2012).

The objective of this study is to elucidate the liaison between WCM and firm's performance among Scandinavian countries (Denmark, Norway, and Sweden). There are two reasons for choosing Scandinavian states: firstly these countries have stable economic and political situations. Secondly, their institutional settings are supportive of fostering business activities and building strong business relationship. We measure WCM as receivable days (RADs), inventory days (IDs), payable days (PADs), cash conversion cycle (CCC), working capital (WC) and current ratio (CR), and firm profitability as return on assets (ROA). Study results show the negative impact of inventory days, account receivable days, account payable days, and cash conversion cycle on firm profitability. These results indicate that large recovery period effects on funds availability and

supply of material, which subsequently impact on firm operations and profitability. Moreover, working capital and current ratio have a positive relationship with firm profitability, which shows the importance of excessive current assets to foster ROA. Policy implications of the study recommend that firms which are desired to enhance their profitability should pay special attention to manage WCM.

Section 2 delivers a brief summary of past studies on WCM and hypothesis development. Section 3 defines methodology, variable measurement, and empirical modeling. Section 4 summarizes the experimental analyses and results. Section 5 reports conclusion and policy implications.

LITERATURE REVIEW

Previous studies are focused on examining the role of WCM as optimal inventory level, cash conversion cycle, optimal account receivable and payable, on firm success (Deloof, 2003; Gill, Biger, & Mathur, 2010). Some of them found consistent results and other established mix results. Gill et al. (2010), reviewed the association among WCM and firm success among 88 US firms registered on NYS for the time frame from 2005-07. Firm-level profitability and WCM were measured as gross operating income and cash conversion cycle, respectively. The results signified that firm's manager can earn a profit for business by managing cash conversion cycle efficiently.

Uchenna et al. (2012), scrutinized the impact of WCM on the profitability of industrial firms. Researchers used CCC (cash convert cycle) to quantify WC. Using multiple regression analysis, results showed that WCM as cash conversion cycle, impact on firm profitability. These results were consistent with other previous studies e.g. Pouraghajan and Emamgholipourarchi (2012), and Charitou, Elfani, and Lois (2010), which stated significant relationship among WCM and firm performance.

Aregbeyen (2013), securitized the connection between WCM and firm profitability among 48 industrialized firms registered on Stock Exchange of Nigeria for the time period of 1993 to 2005. WCM was measured through different proxies' i-e. The average period for collection, average period for payment, inventory turnover, and cash conversion cycle. To estimate firm performance author used three measures, which are categorized as gross operating revenue, net operating revenue and returns on assets. The final results specified that ineffective level of working capital reduces firm profitability. These results were in line with past study of Smith (1973), which notified that a huge number of firms failure were

caused by the ineffective level of WC. Thus the efficient and effective level of WC is necessary to attain short term and long term business objectives.

Marttonen, Monto and Karri (2013), inspected the impact of WCM on profitability among industrial maintenance/service sector by using FAM (flexible assets managing) model. Results revealed significantly negative affiliation between WC cyclical time and return on investment (ROI). Baños-Caballero, Gracia-Teruel, and Martinez-Solano (2014), assessed the impact of WCM and firm performance among firms from the non-financial sector of UK.

Economic destructive events such as financial crisis, recession etc. have an impact on working capital practices and policies. Based on recent financial crisis 2007-08, Enqvist, Grahm, and Nikknen (2014), studied the effect of the corporate cycle on the relationship between WCM and firm profitability among Finnish listed firms. Results confirmed that contrary to the boom, economic downturns have a statistically substantial impact on the above stated relationship. The purpose of effective WCM is to reduce cash conversion cycle (CCC) to the acceptable optimal point which suites firm's requirement (Hager, 1976). A shorter working capital refers to a speedy collection of account receivables and delays in account payables. It makes funds available to run business operations and fulfill short-term obligations.

Ukaegbu (2014), projected the affiliation among effectiveness of working capital and corporate performance among different industrial sector across countries (Egypt, Nigeria, South Africa and Kenya). The author used balanced panel quantitative approach to examine aforesaid relationship for the period from 2005 to 2009. The study revealed an adverse relationship between WCM and corporate performance. The high cycle of cash conversion reduces corporate profitability. Same results were reported by Deloof (2003) from Belgium and Filbeck and Krueger (2005) from the United States.

Aktas, Croci, and Petmezas (2015), evaluated the impact of WCM on firms operating in the United States from 1982 to 2011. By using different statistical techniques, results found an optimal level of WCM, and firms which obtain such optimal level will show high operating and stock performance. Literature also suggests numerous theory based arguments to observe the possible association between WCM and firm effectiveness. One argument recommends that, an additional investment in WC foster firm performance by rising sales and reducing supply cost. Another argument proposes that overinvestment in working capital will adversely impact on firm performance by increasing opportunity and financing costs (Kieschnick, Laplante, & Mousawwi, 2013).

Afrifa and Padachi (2016), investigated the connection between the level of WC measured as cash conversion cycle and performance of SMEs for the period of 5 years (2005-10). The empirical findings suggested that a concave relationship between WCM and profitability. Singh, Kumar, and Colombage (2017), quantified the influence of WCM on company's success by using the meta-analytic model created by Hunter, Schmidt, and Jackson (1982). The study used 46 past pieces of literature to evaluate above mentioned relationship. The results indicated that the negative association between cash conversion cycle and firm profitability.

Tran, Abbott, and Jin-Yap (2017), estimated the impact of managing working capital to encourage firm value, especially among Vietnamese SMEs. Authors used diverse measures to calculate WCM i-e raw material, WIP (work in process), finished goods, account receivable, bank and cash balances. The findings of the study presented that efficient WCM representing a reduction in days of inventory turnover, account receivable and account payable will significantly improve firm profitability.

RESEARCH HYPOTHESIS

WCM is an important part of financial management. Efficient managing of WC apparently has an influence on firm's liquidity and profitability (Shin & Soenen, 1998), particularly in SMEs (Baños-Caballero et al., 2012; Padachi, 2006). WCM has both positive and negative impact on firm performance. In a positive relationship, when enterprises own large inventory stock, they can enhance production, which ultimately fosters sales and profitability. In the same way, an increase in a number of days for debtors will foster credit sales and profitability. On the other hand, such increase in recovery period will stuck enterprises into the credit crunch, which will end up in reducing operations, minimizing production, hampering sales and ultimately diminishing profits. Contrary to the prior results, estimates exposed that an inverted-U shape relationship between firm profitability and WCM. Based on above discussion and prior literature, we can hypothesize that;

H: WCM has a significant impact on firm performance.

RESEARCH METHODOLOGY

The study population consists of firms operating in three major Scandinavian countries (Denmark, Norway, and Sweden) during the period of 2003 to 2015. These firms are further categorized into 18 industries as per global industrial classification (GIC). Final sample comprises 5194 firm-year observation, to observe the liaison between WCM and profitability of firms. We collect data from financial statements and World

Bank database. Firms only include non-financial sector, and the financial firm is excluded due to the different regulatory environment. Moreover, firms with missing values are also eliminated from the dataset.

Variables Measurement

We measure firm WCM by using diverse range of proxies i-e inventory days (IDs), account receivable days (ARDs), account payable days (APDs), cash conversion cycle (CCC), working capital (WC), and current ratio (CR) (Afrifa, Tauringana, and Tingbani, 2014; Aregbeyen, 2013). In order to understand the impact of WCM on firm profitability, we use return on assets (ROA) as an indicator to estimate firm's profitability (Aregbeyen, 2013; Uchenna et al., 2012). Along with aforementioned variables, we also incorporate different micro and macro level control variables such as; firm size, firm age, firm leverage, GDP growth, and financial crisis dummies (2008-09). The calculations and formulas to measure each of above proxy are mentioned in Table 1.

Table 1. Variable Definition

Variable	Name	Measurement	Hypothesized Sign
Exploratory Variable			
Firm profitability	Return on Asset	EBIT/Total Asset	
Explanatory Variable			
WCM	Inventory Turnover Days	(Inventory/Cost of Goods Sold)*365	-
	Account Receivable Days	(Receivable/Sales)* days (year)	-
	Account Payable Days	(Payable/ Cost of Goods Sold)* days (year)	-
	Cash Conversion Cycle	Receivable Days+ Inventory Days- Payable Days	-
	Working Capital	Current Assets-Current Liabilities	+
	Current Ratio	Current Assets/Current Liabilities	+
Control Variables			
	Firm Age	Study Year-Incorporation Year	+
	Firm Size	Natural Log of Sales	+
	Firm Leverage	Debt/Total Assets	-
	GDP growth	Annual Growth	+
	Financial Crisis 08	Dummy (1 For The year 2008)	-
	Financial Crisis 09	Dummy (1 For The year 2009)	-

Econometric Modeling

Based on independent variables shown in Table 1, we have develop six econometric models. The first model developed for inventory days, model (2), (3), (4), (5), and (6) use receivable days, payable days, cash conversion cycle, working capital, and current ratio respectively.

$$\text{Firm Profitability}_{itk} = \beta_0 + \beta_2 \text{Inventory Days}_{itk} + \sum_{j=1}^k \beta_j \text{Control Variables}_{itk} + \varepsilon_{itk} \quad (1)$$

$$\text{Firm Profitability}_{itk} = \beta_0 + \beta_3 \text{Receivable Days}_{itk} + \sum_{j=1}^k \beta_j \text{Control Variables}_{itk} + \varepsilon_{itk} \quad (2)$$

$$\text{Firm Profitability}_{itk} = \beta_0 + \beta_4 \text{Payable Days}_{itk} + \sum_{j=1}^k \beta_j \text{Control Variables}_{itk} + \varepsilon_{itk} \quad (3)$$

$$\text{Firm Profitability}_{itk} = \beta_0 + \beta_5 \text{Cash Conversion Cycle}_{itk} + \sum_{j=1}^k \beta_j \text{Control Variables}_{itk} + \varepsilon_{itk} \quad (4)$$

$$\text{Firm Profitability}_{itk} = \beta_0 + \beta_6 \text{Working Capital}_{itk} + \sum_{j=1}^k \beta_j \text{Control Variables}_{itk} + \varepsilon_{itk} \quad (5)$$

$$\text{Firm Profitability}_{itk} = \beta_0 + \beta_7 \text{Current Ratio}_{itk} + \sum_{j=1}^k \beta_j \text{Control Variables}_{itk} + \varepsilon_{itk} \quad (6)$$

RESULTS

Table 2 represents the descriptive analysis of dataset utilized to determine the relationship between WMC indicators and firm profitability. It shows that sample firms have averagely 0.0141 return on assets with the minimum value of -3.2592 and the maximum value of 3.3662. As per WCM indicators are concerned, it will take on average, 4.1243 days for inventory, 3.8376 days for account receivable, 4.2654 days for account payable and 4.2305 days for cash conversion cycle. Working capital measures as the difference between the current asset and current liabilities show average log value of 9.8898. Correspondingly, the current ratio calculated as current asset deflated by current liability shows mean value of 0.4400. Control variables indicate that on average, firm age has 3.1110 years of operations, firm size has 7.4281, firm leverage has a ratio of 0.2409 and GDP growth has 1.7691 percent.

Table 2. Descriptive Statistics

Indicators	Observations	Mean	SD
Return on Assets(ROA)	5,194	0.0141	0.4342
Inventory Days(ID)	3,859	4.1243	1.3986
Account Receivable Days(ARD)	4,851	3.8376	0.9671
Account Payable Days(APD)	4,505	4.2654	1.0703
Cash Conversion Cycle(CCC)	3,341	4.2305	1.1237
Working Capital(WC)	4,048	9.8898	2.3597
Current Ratio(CR)	5,194	0.4400	0.7518
Firm Age(AGE)	5,143	3.1110	1.1868
Firm Size(SZ)	5,194	7.4281	1.2583
Firm Leverage(LEV)	4,696	0.2409	0.2362
GDP Growth(GDP)	5,194	1.7691	2.3261
Financial Crisis Dummy 08(FC08)	5,194	0.0705	0.2560
Financial Crisis Dummy 09(FC09)	5,194	0.0728	0.2598

Table 3 elaborates the results of Pearson Correlation Matrix, which addresses the possible chance of collinearity among variables. This statistical issue may lead to biased regression estimations. According to the results, there is no issue of collinearity among variables and most of the univariate results are statistically significant.

Table 3. Pearson Correlation Matrix

	ROA	ID	ARD	APD	CCC	WC	CR	AGE	SZ	LEV	GDP	FC08	FC09
ROA	1.0000												
ID	-0.1315 ^a	1.0000											
ARD	-0.0757 ^a	0.0535 ^a	1.0000										
APD	-0.1112 ^a	0.3521 ^a	0.2168 ^a	1.0000									
CCC	-0.0765 ^a	0.7775 ^a	0.2290 ^a	0.3037 ^a	1.0000								
WC	0.3684 ^a	-0.0314 ^c	-0.0141	-0.1510 ^a	-0.0432 ^b	1.0000							
CR	0.0387 ^a	0.2708 ^a	0.1761 ^a	-0.0962 ^a	0.3315 ^a	0.0205	1.0000						
AGE	0.2086 ^a	0.0013	-0.0405 ^a	-0.1505 ^a	0.0026	0.4136 ^a	-0.0599 ^a	1.0000					
SZ	0.1184 ^a	-0.0037	-0.0288 ^b	-0.0527 ^a	-0.0125	0.0822 ^a	-0.0710 ^a	0.0641 ^a	1.0000				
LEV	-0.0768 ^a	0.0403 ^a	-0.1046 ^a	0.0014	-0.0315 ^c	0.1582 ^a	-0.3588 ^a	0.0625 ^a	-0.0190	1.0000			
GDP	0.0106	0.0206	0.0126	0.0294 ^b	0.0130	-0.0456 ^a	0.0263 ^b	-0.0358 ^a	0.0108	-0.0454 ^a	1.0000		
FC08	0.0025	0.0014	0.0169	-0.0334 ^b	0.0311 ^c	0.0336 ^b	-0.0117	-0.0039	-0.0051	0.0211	-0.2668 ^a	1.0000	
FC09	-0.0102	-0.0227	-0.0019	-0.0385 ^a	-0.0367 ^b	0.0300 ^b	0.0077	0.0083	-0.0211	-0.0005	-0.7166 ^a	-0.0771 ^a	1.0000

Note: ^a significant at 1%, ^b significant at 5%, ^c significant at 10%

To testify the study hypothesis, we have used ordinary least square (OLS) regression analysis along with industry and country control. Moreover, we use robust standard error technique to minimize the chances of heteroskedasticity. Furthermore, we also control for financial crisis periods (2008-09). Accompanied by former controls, we incorporate different firm-level control indicators i-e firm age, size, and leverage. According to results reported in Table 4, after using aforementioned control variables, the results indicate that WCM measure as inventory days, account receivable days, account payable days and cash conversion cycle have significant adverse impact on firm profitability. Which elaborates that increase in a number of days for inventory, account receivable, and cash conversion cycle, will stuck firm in the credit crunch and reduce operations which subsequently hamper profitability.

However, the negative impact of an increase in account payable days on profitability shows that delayed payment to supplier reduces the supply of raw materials which adversely impact on the production process and thus reduce profitability. On the contrary, working capital measure as difference/ratio of current assets and current liabilities explains the positive relationship with firm performance. These results show that high level of current assets as compare to current liabilities, guarantee smooth operations which enhance firm profitability. These results are consistent with past literature (Singh et al., 2017; Tran et al., 2017; Ukaegbu, 2014).

Control variables show that firm age has a positive and statistically significant impact on firm profitability. It verifies that old firms better understand the market dynamics as compare to young firms and have efficient WCM system. Consistent with prior results, firm size identifies that large size firms have significant cash flow to fund operations. However, we found a negative impact of leverage on firm profitability. These estimates show that high leverage firms have to pay a large amount of money in term of interest expenses, which reduce profitability. In line with the theoretical argument that good economic situations enhance firm performance, we found a positive link between GDP growth and firm's profitability. Interestingly, we don't find any statistically significant impact of financial crises (2008-09) on firm profitability. The possible reason for these result may be the feasible conditions for economic activities during the financial crisis period among selected Scandinavian countries. Lastly, all the econometric models pass F Statistics and having significant values of R square.

Table 4. Regression Analysis

ROA	β	V.I.F.	β	V.I.F.	β	V.I.F.	β	V.I.F.	β	V.I.F.	β	V.I.F.
ID	-0.019 ^a (-5.96)	1.34										
ARD			-0.012 ^b (-2.03)	1.37								
APD					-0.032 ^a (-5.15)	1.11						
CCC							-0.012 ^a (-2.86)	1.21				
WC									0.037 ^a (15.5)	1.4		
CR											0.023 ^b (1.97)	1.33
AGE	0.045 ^a (12.12)	1.18	0.042 ^a (12.14)	1.2	0.048 ^a (12.03)	1.21	0.037 ^a (11.57)	1.18	0.023 ^a (5.49)	1.37	0.057 ^a (12.67)	1.18
SZ	0.003 (0.79)	1.03	0.009 (1.55)	1.03	0.002 (0.68)	1.03	0.000 (-0.08)	1.04	0.015 ^a (2.65)	1.04	0.021 ^a (3.51)	1.03
LEV	-0.090 ^a (-5.32)	1.12	-0.134 ^a (-5.03)	1.15	-0.082 ^a (-2.54)	1.12	-0.114 ^a (-5.94)	1.09	-0.033 (-1.25)	1.23	-0.104 ^a (-2.81)	1.34
GDP	0.007 ^a (2.74)	2.97	0.007 ^a (2.82)	2.99	0.007 ^a (2.48)	3.02	0.007 ^a (2.78)	3.2	0.008 ^a (2.71)	2.95	0.008 ^a (2.64)	2.93
FC08	0.018 (1.21)	1.32	0.023 ^c (1.64)	1.33	0.009 (0.55)	1.33	0.018 (1.16)	1.36	0.030 ^a (1.7)	1.31	0.025 (1.41)	1.31
FC09	0.026 (1.34)	2.65	0.022 (1.00)	2.67	0.015 (0.63)	2.7	0.027 (1.38)	2.86	0.031 (1.24)	2.64	0.028 (1.09)	2.63
Cons.	-0.025 (-0.65)		-0.082 ^c (-1.78)		0.018 (0.41)		0.019 (0.51)		-0.534 ^a (-9.78)		-0.288 ^a (-6.17)	
No. of obs.	3,614		4,405		4,126		3,102		3,544		4,657	
F-Stat	14.51		13.37		12.44		12.34		16.8		12.91	
Prob. > F	0.0000		0.0000		0.0000		0.0000		0.0000		0.0000	
R ²	0.1242		0.1005		0.1108		0.1215		0.1813		0.109	

Note: ^a significant at 1%, ^b significant at 5%, ^c significant at 10%, (z) value in brackets

CONCLUSION

To achieve the goals of the current research, we gather data from annual financial statements and World Bank for the period of 2003 to 2015. We run Ordinary least square (OLS) together with robust standard error technique to test our main hypotheses i.e., “WCM has a significant impact on firm performance”. We also test sample data for collinearity through Pearson Correlation Matrix and Variance Inflation Factor. These collinearity tests confirm the absence of collinearity issue among our selected variables.

To find concrete results, we use both firm level (firm age, size, leverage) and country-level control variables (GDP growth, financial crisis). After controlling for several indicators, we find a negative impact of inventory days, account receivable days, account payable days, and cash conversion cycle on firm’s profitability. These results indicate that large recovery period effects on funds availability and supply of material which subsequently impact on firm operations and profitability. Moreover, working capital and current ratio have a positive relationship with firm profitability, which shows the importance of excessive current assets to foster ROA. Policy implications of the study recommend that firms which are desired to enhance their profitability should pay special attention to manage WCM.

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THE ARTIFICIAL NEURAL NETWORK METHOD: A PRACTICAL GUIDE FOR BUSINESS RESEARCH

Muhammad Ayyoub and Aisha Riaz

ABSTRACT

We aim at explaining how the Artificial Neural Network method works by analyzing its applications in the context of quantitative business research. Specifically, we focus on exploring questions such as: what are the bases for neural networks and how does the ANN method help to facilitate quantitative business research in financial management? We contribute to the existing literature not only by explaining all aspects of this methodology but also by encouraging the usage of this non-parametric research tool by business researchers. Also, we reviewed the most recent literature on ANN, particularly an empirical application by Yenice (2015), to explore the magnitude of the impact of macroeconomic variables on enterprises' working capital. In the case of the Turkish economy, the ANN method efficiently determined the variables which are more influential on the level of working capital.

Keywords: *Artificial neural network; Business Research; Financial Management; Quantitative method; Working capital management.*

INTRODUCTION

Human beings imitate the environment and make theatrical versions of nature. This is done to get benefits from it and make life easy. The term used to describe this is Bio-mimicry. Nature always inspires inventions (e.g., birds inspired flight sensor inventions, and the bullet train takes its design from the beak of King Fisher). Likewise, the human brain's neural system inspired the computer's artificial neural network. Artificial Neural Network (henceforth called the ANN method) is a computer system based framework developed to automate the process of generating, constructing and determining new information through learning which is one of the core ability of the human brain (Öztemel, 2003). The ANN method replicates the structure and processing mechanism of the brain.

In the age of globalization and knowledge-based economy, the art of doing business not only demands speed, efficiency, and innovation but also requires intelligent analysis of relationships between variables to give accuracy to operations, financial prediction, risk management, behavior recognition and sales growth. The ANN method is widely used as a statistical and decision-making tool in business and finance. As it gets better-predicted links than the regression models, it is dominant in grasping sophisticated non-linear integrating effects (Pao, 2008).

We aim at exploring the basis for the neural networks and how the ANN method works for research in financial business management. This paper intends to elaborate the functions and applications of the ANN procedure in business, especially in the case of financial management. The net contribution of our exercise is to explain the ANN method as a useful estimation technique. The evidence from historical and current uses of the ANN method in business will help financial management, encourage further researches, and increase the usage of this estimation method in empirical business research.

The History of Neural Network in Business

According to Smith and Gupta (2000), development of the neural network comprises five stages and each stage has an impact on business.

Stage I: Preliminary Research. In 1834, Charles Babbage invented ‘analytic engines.’ Modern electronic computers with abilities to automate tedious calculations are designed with the same concept of analytic engines. In 1890, William James published a book, ‘Psychology’ and argued early perceptions of the brain process. Ivan Pavlov won the Nobel Prize (1904) for ‘conditional learning.’ To capture the market of electronic computers “International Business Machines (IBM)” was established in 1914. In 1943, McCulloch and Pitts wrote a paper on “neuron structure with weighted inputs” (Yadav *et al.*, 2015).

Stage II: The Golden Age. In 1946, Wilkes invented ‘Operational Stored Program.’ In 1954, “General Electric Company” installed a ‘UNIVAC’ - as an automatic payroll system based on artificial intelligence. In 1949, Donald Hebb wrote learning rules in his book “The Organization of Behavior,” and in 1954, Marvin Minsky constructed first “Neuro-Computer principles.” In 1956, a research project was held by Dartmouth ‘Summer Research Project.’ In 1957, Rosenblatt’s ‘Perceptron model’ was developed for neural networks.

Stage III: Quiet Years (1969 to 1982). Minsky and Papert (1969) published a book on Perceptions which mathematically prove that learning is impossible through weights. However, in 1971, the first ‘microprocessor’ was established by the ‘Intel Corporation Inc.’. With the advent of microprocessors, computers and artificial intelligence became a necessity for every organization. Progress in computer technology proceeded until mid-70 as ‘SPSS Inc.’ and ‘Nestor Inc.’, were incorporated in 1975. In 1977, with the launch of ‘Apple Computer Corporation,’ the computer industry became profoundly involved in neural networks. In 1981, IBM brought computing power to doorsteps with the inauguration of ‘IBM PC.’ The concept of ‘self-organization map’ was introduced by Kohonen in 1982.

Stage IV: Renewed Enthusiasm (1983-1990). In 1983, the US government granted funds to the Defense Advanced Research Projects Agency (DARPA) ANN project. ‘Back-propagation learning rule’ was revealed in 1985. Rumelhart and McClelland published a book entitled “Parallel Distributed Processing” in 1986 which is considered as a bible of the neural network. In 1987, a first international conference on neural networks was preceded by the ‘IEEE.’ In ‘1988 Neural Networks’, ‘1989 Neural Computation’, and ‘1990 IEEE Transactions on Neural Networks journals’ emerged ‘NeuralWare Inc.’

Stage V: Industry Driven. For economic predictions, banks started the practice of neural networks in 1991. ‘Neural Tech Inc.’ was developed in 1993 and ‘Trajecta Inc.’ in 1995. By 1996, ‘intelligent techniques’ based on the neural network became a significant part of the financial sector. In 1998, ‘IBM Inc.’ announced about \$70 billion business intelligence market. There are still ongoing researches with more emphasis on industry driven and sector oriented research findings.

Applications

The ANN method has various applications in different fields of business such as identification of the customer’s satisfactions (Kengpol & Wangananon, 2006), sales forecasts (Kuo *et al.*, 2002) and target markets (Abrahams *et al.*, 2013). We elaborate the feasibilities of the ANN method in the financial sector as follows:

Financial Predictions. The ANN method can learn historical trends over the training process and adjust weights automatically. Through this process, it can predict future trends (*e.g.*, prediction of the stock markets inclinations).

Time-series Forecasting. The ANN method can minimize errors and regulate weights of input time-series data. Through this process, the ANN method can forecast the magnitude of changes in series as well as the coefficient of the simple regression process (*e.g.*, estimation of the most influential risk factor in risk management practices in the financial sector).

Risk Rating. As the ANN method can identify and classify relative incidence, it can rate the risk and help with risk assessment in the financial sector (*e.g.*, classification of risks and estimation of bankruptcy).

Financial Fraud Detection. The ANN method can recognize patterns and match inputs with previously recorded information then detect minor changes in provided data (*e.g.*, banks can use the ANN method in signature and credential verifications).

Credit Scoring. As the ANN method can generalize patterns to catch the association between and within given data, it helps in efficient organization and certain spotting trends (*e.g.*, detection of credit defaults customers through credit scoring history).

Stock Selection and Trading. The ANN method can identify the relation between input values and make clusters of diverse groups within input values. Through appropriate training of the ANN model, it can help in identifying trends in the market, thus making transactions possible.

This paper proceeds as follows. The next section is the literature of relevant studies which are helpful toward understanding the applicability of this method in business. This is followed by the section that explains the methodology of ANN. The second to last section elaborates a recently published article which utilized the ANN method to inspect the empirical relationship between working capital and macroeconomic variables in the Turkish economy. The final section is the conclusion.

LITERATURE REVIEW

The ANN method is a non-parametric technique that can be used to find the solution to research questions by incorporating statistical – linear as well as non-linear – procedures faster than conventional parametric methods. Many researchers have highlighted the applicability of the ANN procedure in business in the context of specific aspects such as.

Approximation

According to Yenice (2015), the ANN method can be used for

approximation in business. This method is equivalent to finding the regression coefficients by using reducing error procedure – least-square or absolute – in actual and expected outputs by adjusting the weights. Pao (2008) investigated the output via linear regression and non-linear ANN technique to determine the firm characteristics that regulate the capital structure in Taiwan. He utilized panel data from 720 publicly traded firms ranging from 2000 to 2005. His results pointed out that the ANN model produces a more significant regression coefficient data set than the statistical regression model.

Optimization

According to Li (1994), the ANN method can be used to find the optimal solution of the non-deterministic polynomial problem. By utilizing a “genetic algorithm optimization procedure” for estimation of insolvency, Chung *et al.* (2008) used the ANN method with input and weights. They analyzed the financial data of stable companies in New Zealand over the accounting period 2004-2007. Their study revealed that, for insolvency estimation, the ANN method is more efficient than the earlier models of optimization.

Classification

The ANN method can also be used to classify objects into continuous or discrete input categories. The non-parametric ANN method works similarly to discriminant analysis in statistics for classification task (Dreiseitl & Ohno-Machado, 2002). Perez (2006) conducted a review research with an objective to focus on the evolution of classification using the ANN method. He evaluated 30 studies to check bankruptcy in firms' classification (healthy and failing). He concluded that the scoring could be generated through multivariate discriminant analysis. These scores were balanced through coefficient and its importance, and classified according to the results. In comparison with traditional statistical tools (*e.g.*, multivariate discriminant analysis, Logit, and Probit), the ANN method provides contemporaneous and even better estimations in bankruptcy.

Prediction

Yolcu *et al.* (2012) stated that in a linear or non-linear structure, the ANN approach is a valuable technique for time-series forecasting. In contrast with the fuzzy time-series hybrid methods, it can also be used for complex decision making (*e.g.*, prediction in the financial sector). Output

values (continuous) can be predicted from input values (continuous or discrete) through simple learning processes (Li, 1994). For instance, Atiya (2001) probed the prediction of bankruptcy for credit risk through the neural network. For significant perfection in prediction, the model accurately tested 716 solvent and 195 defaulted firms. The empirical findings revealed that a unique set of indicators for bankruptcy could be utilized with the financial ratios.

Generalization

According to Li (1994), the ANN method has the power to generalize the patterns and find links between and within input values. In the learning process, it identifies similar statistical properties, minimizes errors of noisy input modes, and classifies objects by generalization. It also helps in efficient classification and accurate forecasting. Hall *et al.* (2009) conducted research to identify financial disturbances using the ANN method. To determine the actual credit risk in the financial sector, their study considered a few macroeconomic variables (*e.g.*, GDP growth rate, exchange rates, inflation rate, stock price and circulated money). The results revealed that stock prices were a major indicator of default risk.

Relation

The ANN method can identify the relation between input values and make clusters of diverse groups within input values. Li (1994) highlighted that in Statistics, factor and cluster analysis are used for the same purposes. By utilizing the neural network algorithm, Ding *et al.* (2011) used the back-propagation factor and cluster analysis techniques. The initial data reduced dimensionality through factor analysis and then got divided into sub-categories through cluster analysis. The usage of ANN method consequently improved the adaptability and enhanced the efficiency of ANN structure to make precise predictions in finance.

Other Applications of ANN Method

The ANN method has different characteristics that can also help the financial sector in predictions, ranking and scoring (*e.g.*, abstraction and adaptation). It has an ability of abstraction as it can filter noisy imperfections and errors in inputs and enhance integrity. Furthermore, adaptation is an extra feature because it has the power of self-adjustment. In the training process, the ANN method automatically learns the patterns and adapts weights in a dynamic environment.

METHODOLOGY OF ANN METHOD

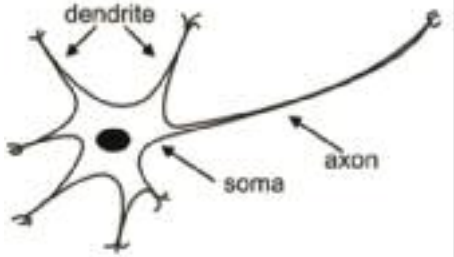
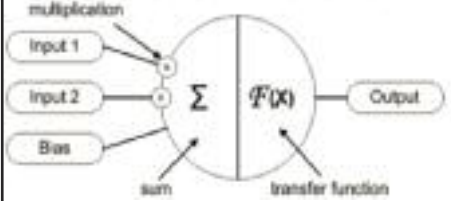
According to Öztemel, (2003), “The ANN is a computer based structure, designed to automate (*i.e.*, deprived of the attainment of any assistance) the process of creating, assembling and formatting new evidence through learning, which is one of the characteristics of the human brain.” An artificial neuron is a computational model inspired by the complex natural neural system. The basic difference between a biological neuron and artificial neuron is described in Table 1.

A single neuron consists of an input with its self-adjusted weighted value. Inputs get multiplied by their respective weights, and the sum of these weighted inputs and bias get processed with a transfer function. As a result, the output is generated. The mathematical description of an artificial neuron is presented in Equation (1).

$$y(t) = f(\sum_{i=0}^m w_i(t) + b) \dots \dots \dots (1)$$

Where, $y(t)$ is an output value in discrete time, k ; $w_i(t)$ is weight value in k ; range of i is 0 to m ; $x_i(t)$ is input value in discrete time, t ; b is bias, and f is a transfer function.

Table 1. Difference between Biological Neuron and an Artificial Neuron

Biological Neuron	Artificial Neuron
<p>Natural neurons receive signals through synapses located on dendrites; soma also takes signals. Of them, the strongest enough, process and passes it on via axon.</p> 	<p>In ANN, inputs (like synapses) multiplied by weights, then the sum of these weighted inputs and bias processes with a transfer function. Then processed information passes it on via the output.</p> 

The Structure of the ANN

Different artificial neurons gather and make a net of the network that is considered as an artificial neural network (Table 6). It consists of different layers, principally input, hidden and an output layer (Figure 1).

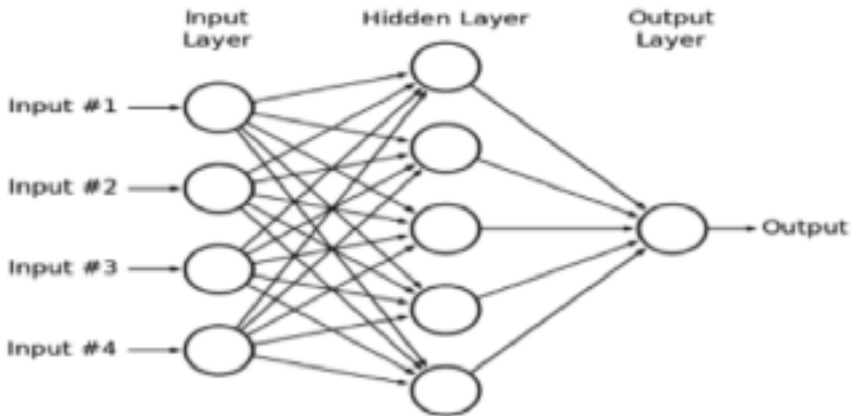


Figure 1. General Depiction of Artificial Neural Network



Input Layer. The input layer contains the predictor. There must be at least one independent variable that can be a ‘factor’ in the case of a categorical variable; and ‘covariate’ in the case of scale. The data provided by a user is considered as the value of the input layer. Recycling is an essential part, in the case of a scalar variable. The choices are standardized, normalized, adjusted normalized and none.

Table 2. Rescaling Methods for Scale and Covariates Variable

	Standardized	Normalized	Adjusted Normalized	None
Formulae	$(x-\text{mean})/\text{st. dev}$	$(x-\text{min})/(\text{max}-\text{min})$	$[2*(x-\text{min})/(\text{max}-\text{min})]-1$	No Rescaling
Range	-	0 to 1	-1 to 1	-





Hidden Layer. The middle layer comprises of nodes that are considered as a black box of the ANN. The value of each node is extracted by applying the related activation function (be subject to the network type) to the sum of weighted inputs and bias. Activation function takes a real value and transforms it in a similar range. The common activation functions are hyperbolic tangent and sigmoid function (Table 3).

Table 3. Activation Function of the Hidden Layer

	Hyperbolic tangent	Sigmoid
Graph		
Function	$f(x) = \tanh(x) = (e^x - e^{-x}) / (e^x + e^{-x})$	$f(x) = 1 / (1 + e^{-x})$
Range	-1 to 1	0 to 1
Architecture	Automatic	Custom

Output Layer. The output layer encompasses responses - target variables. There must be at least one dependent variable that can be nominal, ordinal or scale. Scale-dependent variables should be re-scaled to improve the network training. This normalization is required to bring all variables into proportion with one another. The choices can be Standardized, Normalized, Adjusted Normalized or None (Table 2). The value of each output unit is extracted by applying related activation function (be subject to the network type) to the value of hidden units. Activation function takes a real value and transforms it in the corresponding range. The common activation functions are Identity, Softmax, Hyperbolic Tangent and Sigmoid (Table 4).

Table 4. Activation Function of Output layer

	Identity	Softmax	Hyperbolic Tangent	Sigmoid
Graph				
Function	$f(c) = c$	$f(c_k) = \frac{\exp(c_k)}{\sum_j \exp(c_j)}$	$f(x) = \tanh(x) = \frac{(e^x - e^{-x})}{(e^x + e^{-x})}$	$f(x) = 1 / (1 + e^{-x})$
Range	-	0 to 1 sum equal to 1	-1 to 1	0 to 1
Architecture	Automatic (if any scale)	Automatic (if all categorical)	Custom	Custom
Re-scaling Method	-	-	Adjusted normalized	Normalized

The Training Process. The ANN learns through the training process. The training process replicates the learning process of the natural nervous brain system which recognizes and understands the behavioral patterns of changes in surroundings and reacts according to these changes (Figure 2). The output is generated by giving input values and matches this expected output with actual output. The difference is known as an error. The error is used to adjust the weights in the ANN. The iterations continue until the error is minimized. This training ends when the error is minimized, and through this iteration, learning process stops (Table 5).

$$Error = Expected\ output - Actual\ output \dots\dots\dots (2)$$

Table 5. Error Type of Output Layer

	Activation Function	Error Type
Output Layer	Identity	Sum of square error
	Sigmoid	Sum of square error
	Hyperbolic tangent	Sum of square error
	Softmax	Cross entropy error

Alternative Analysis

The artificial neural networks are computer-based technology that can perform non-linear and non-parametric statistical analysis. The ANN performs the prediction, scoring, rating and verification in different fields of business. For instance, it can perform for approximation in the replacement of linear regression analysis (Pao, 2008); optimization of estimation techniques (Chung *et al.*, 2008); classification in contrast to discriminant analysis (Dreiseitl & Ohno-Machado 2002); forecasting in contrast with the fuzzy time series and hybrid methods (Li, 1994); generalization in order to find the link as an alternative to logistic regression (Hall *et al.*, 2009); and finds a relation in the replacement of factor analysis and cluster analysis (Ding *et al.*, 2011).

Software Packages

The NEURAL Network by SAS; SPSS Neural Networks by IBM; Neural Network Toolbox 3.0 (for MATLAB); Practical Neural Network Recipes in C++ by Masters; and NeuroShell 2 by the Ward Systems Group are among the most frequently used neural network software packages (Detienne *et al.*, 2003).

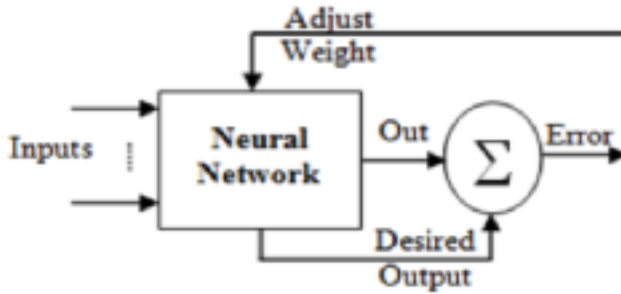


Figure 2. General Depiction of Training Process in ANN

Advantages of the ANN

Despite the ability of self-adjustment, the ANN can manage incomplete, omitted or noisy input values; the ANN does not entail any previous assumptions and mappings. Following are the significant advantages of the ANN.

Non-Parametric Model. By nature, the ANN is a non-parametric technique. Therefore, it is easy to use and understand as compared to the other statistical methods. It does not require general assumptions of logical analysis like the dissemination of data; impartiality of variables and dimensions of the sample except that error term ϵ is normally distributed (Detienne *et al.*, 2003).

Non-linear Relationship. According to Detienne *et al.* (2003), neural networks have the capability to deal with highly complex interactions more meritoriously than other statistical techniques. The ANN architecture warrants superior performance in dealing with all degrees of nonlinearity.

Evidential Response. Because of the ability of primary local connections, the ANN has the capability of identifying all possible connections between predictor variables, with a good degree of the decision as the ANN negotiates with a high level of robustness in advance and provide meaningful responses.

Fault Tolerance. The ANN comprises of many layers and units which have parallel processing capability that helps in managing faults. If one of the connections does not work, it may affect accuracy but the system continues to collaborate. The ANN can deal with incomplete, missing or noisy data inputs, a full shutdown of the system happens only if all connections fail at the same time (Pao, 2008).

Table 6. Summary of the ANN Method

	Architecture	
	Automatic	Custom
	Activation Function	
Hidden Layer	Hyperbolic tangent	Sigmoid
Output Layer	Any Scale Identity Sum of Square Error	x
	All Categorical Softmax Cross entropy error	All Categorical Softmax Cross entropy error
	X	Scale variables (rescaled as Adjusted Normalized) Hyperbolic tangent Sum of Square Error
	X	Scale variables (rescaled as Normalized) Sigmoid Sum of Square Error

Input-output Mapping. It creates an auto-association between nonlinear and/or any continuous function. It is widely used in solving various classifications and forecasting problems. The ANN detects and predicts association through linking the inputs with outputs to learn and train the model (Vellido *et al.*, 1999).

Results Reliability. The ANN-generated results are reliable and accurate as outcomes are guaranteed even in the situation of Back Propagation (BP) when convergence is slow (Dreiseitl & Ohno-Machado, 2002).

LIMITATIONS OF THE ANN

For the sake of improvement and to overcome the reported drawbacks of the ANN methodology, we describe some valid shortcomings of the ANN method below.

Massive Neuron Analogy

As the ANN has a great neuron analogy; the most computational burden regarding training is the core drawback of the ANN. Moreover, except the trial and error exercise, there is no standard way to select the number of units in a network for the rigorous training of the network (Detienne *et al.*, 2003).

It is of ‘Black Box’ Nature

Hidden layer processing is a black box by nature as the ANN is best in solving linear or non-linear equations by training, but it cannot interpret the intention of a bond between input and output. The ANN can verify output by the collective system process but is unable to explain a flow of control (Li, 1994).

Difficulty in Parameters

According to Detienne *et al.* (2003), weights in neural networks are used for training and considered as parameters for a neural network model. The model parameters are accurately perceptible as initial parameters have a high impact on neural networks. The minor alterations in learning rates, architecture and weights may yield huge variations in overall network comportment.

Prone to Over-Fitting

As the ANN method is of an empirical nature of model development it can disclose over-fitting of layers and units during learning in the training session that can generate extra cost regarding time and memory.

RATIONALE

Certainly, there are always situations when the data do not meet basic required assumptions of parametric methods. To this end, we have reviewed the methodology that is well-suited for such situations and threw light in terms of the structure, comparison with alternative approaches, software packages and pros and cons of the method. We may conclude that despite having a few limitations, the ANN method is a non-parametric technique that can be used to find the solution to research questions by incorporating statistical — linear as well as non-linear — procedures faster than conventional parametric methods in certain situations.

An Empirical Example (Yenice, 2015)

The basic aim of an enterprise is to maximize the profits and wealth of shareholder, and both are directly or indirectly allied with capital. To optimize the value of a firm, it is crucial to managing working capital. Moreover, the appropriate management of working capital is required for business profitability. Some certain assets are needed by the enterprises to keep their business operational. For instance, cash, marketable security, accounts receivables, and inventory are critical assets.

To promote an efficient working capital management requires

maintaining each current asset mentioned above separately. Another most frequently used terminology to describe the working capital is ‘net working capital,’ which is regarded as a proxy for the calculation of liquidity. This proxy measures the company’s ability to pay off current liabilities with current assets.

$$\text{Net working capital} = \text{Current assets} - \text{Current Liability} \dots\dots (3)$$

Current assets can be defined as all short-term assets that can be converted into cash within one year. Cash, marketable security, accounts receivables, and inventory are included in current assets. Current liabilities are all short-term debts or obligations that are due within one year. Current liability includes short-term debt, accounts payable, and accrued liabilities. The working capital of an enterprise hinges on many endogenous factors such as the volume of business, maturity of receivables and maturity of payables, supply conditions, and inventory policy. However, there are also external/exogenous or macroeconomic factors that affect the working capital obligation of an enterprise such as inflation, imports, and exports.

RESEARCH OBJECTIVE

This study aims to reveal the extent of the influence of macroeconomic variables on enterprises’ working capital and determine the variable that is the most crucial for the level of working capital. In doing so, an attempt is made to find out working capital requirements correctly by analyzing the impact of exogenous variables on such requirements in a more distinct way. The questions considered in this study are: what are the relationship between the level of working capital and macroeconomic variables; and which macroeconomic variables impact the degree of working capital more?

The research sample consists of 11-years financial statements of 128 real sector companies quoted on the Istanbul Stock Exchange between 2003 and 2013. A total of 1408 observations were made via FIN net Excel Analysis Module (Version 9.2.4.6). Three explained variables were included in the analysis: (1) the working capital ratio that characterizes the level of working capital, (2) return on working capital, and (3) the cash conversion cycle that denotes working capital management. Eight explanatory variables were treated as macroeconomic variables likely to influence working capital.

Inflation is proxied by the change in producer price index and is taken from the Central Bank of Turkey. Foreign exchange rate (USD/TL) factor

is considered as a rate of Turkish Lira in terms of US dollar. The benchmark interest rate established by the Central Bank of Turkey is taken to capture monetary changes in the economy. In order to consider the movements in international trade structure of the economy, imports and exports indices data is taken from Turkish Statistical Institute. As a pointer to the overall economic situation and steadiness, the benchmark Borsa-Istanbul (BIST100) index variable has been taken from Finnet Excel Analysis Module (Version 9.2.4.6). Gold prices and gross domestic product (GDP) growth rate changes are also accommodated along with other macroeconomic factors. All variables are summarized in Table 7.

Table 7. Variables of the Selected Paper

Dependent Variables (Working Capital)	Independent Variables (Macroeconomic Factors) for All Specified Models
1). The Level of Working Capital = Net Working Capital / Total Assets	Inf. = Inflation Exp. = Exports Index Imp. = Imports Index USD/TL = Exchange Rate Int. = Interest Rate BIST100 = Stock Market Index GDP = GDP Growth Rate Gold = Gold Prices
2). Return on Working Capital = Net Profit / Total Current Assets	
3). Cash Conversion Cycle = Days Sales Outstanding + Days Inventory Outstanding – Days Payables Outstanding	

RESEARCH ANALYSIS

Each of the models consists of one hidden layer with 5 numbers of units. In all three models, hyperbolic tangent was used as the hidden layer activation function; identity was utilized as the output layer activation function and the sum of squared errors as an error function. The results, by utilizing the ANN method, show that the firm’s level of working capital is affected by export level (100%). One may conclude that the firm’s enhanced activities mean greater production and higher exports. As the stock exchange is a pointer to the overall economic situation and steadiness in an economy, it highly influences the level of working capital (90%). The firm’s level of working capital is moderately affected by import level (28.25%), interest rate (22.25%) and changes in GDP (21.30%). Whereas, the factors of inflation (17.50%) and gold prices (16.30%) are least to affect the level of working capital of the firms.

Secondly, the return on working capital is affected mostly by the import index (100%) and then stock market index (64%), a benchmark interest

rate (58.8%), export index (56%), and gold prices (53.8%) respectively. This implies that greater the firm's activities, the more the inventory which requires greater imports. The results also show that the level of working capital is affected mostly by the export index (100%) and then stock market index (90%).

Table 8. Summary of the Results of Selected Paper

Level of Working Capital		Return on Working Capital		Cash Conversion Cycle	
Variables	Importance Level	Variables	Importance Level	Variables	Importance Level
Exp.	100%	Imp.	100%	Int.	100%
BIST100	90%	BIST100	64%	Gold	86.90%
Imp.	28.50%	Int.	58.80%	USD/TL	79.20%
Int.	22.50%	Exp.	56%	Exp.	55.70%
GDP	21.30%	Gold	53.80%	GDP	54%
USD/TL	20%	GDP	43.40%	Inf.	48.30%
Inf.	17.50%	Inf.	33.80%	BIST100	39.40%
Gold	16.30%	USD/TL	22.20%	Imp.	30%

The results indicate that the interest rate (100%), gold prices (86.9%), foreign exchange rate (79.2%), export index (55.7%) and GDP (54.0%) are the most influential factors for a cash conversion cycle. The firm's cash conversion cycle is also affected by business operations. Business operations are linked with the export level to reduce the risk linked to cross-border transactions; exporter relies on bank credit to finance their working capital. The use of bank credit depends on the interest rate. That is why the working capital affects interest rates, export index, and the foreign exchange rate. Gold prices are an important determinant of the price level (the high price level leads to low inventory).

On the basis of the analysis and results of the selected paper, we may imply that artificial neural network analysis is effectively used for determination of the impact of macroeconomic variables on working capital. All three dependent variables are analyzed by regressing relevant independent variables without taking account of the data properties and evaluated by the most striking feature of the ANN method (*i.e.*, Scaled Conjugate Gradient). The method in question utilizes one of the qualifications of the human brain (*i.e.*, learning), which helps to discover the skill of producing new information.

CONCLUSION

The reliability of results is questioned when data do not meet the required assumptions of parametric tests. For instance, if the assumption of normally distributed data is not met, and a researcher is not agreed to applying any legitimate way of modifying the data, the classical parametric procedures give misleading results (Basheer & Hajmeer, 2000). In this situation, the artificial neural network (ANN) method, a non-parametric tool, can be effectively used for solving statistical linear and non-linear research questions and management problems in business more efficiently than the other conventional parametric techniques.

The ANN method has some applications in different fields of business such as in marketing; identification of the customer's satisfactions (Kengpol & Wangananon, 2006), sales; sales forecasts (Kuo *et al.*, 2002) and target markets (Abrahams *et al.*, 2013). We have reviewed the ANN method practices in business, especially in the case of financial management. Some of the empirical applications of the neural networks are also provided from the field of business.

Also reviewed is a recent research (Yenice, 2015), which employed the ANN technique to reveal the extent of the influence of macroeconomic variables on enterprises' working capital and identify the variable which is more crucial for the level of working capital. Undoubtedly, there is ample room for more research on the ANN method in financial management. Increased data accessibility and user friendliness of the software packages will motivate more researchers to utilize the ANN method and explore new dimensions.

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IMPACT OF PERFORMANCE APPRAISAL SYSTEM ON EMPLOYEE SATISFACTION AT KARACHI PORT TRUST

Dr. Rafique Ahmed Khan, Mahwash Meraj and Sadaf Alam

ABSTRACT

Performance appraisal is considered as an essential tool to motivate and develop employees. The purpose of this research was to find out the impact of Performance Appraisal System (PAS) on Employee satisfaction at Karachi Port Trust (KPT). The research, being explanatory in nature, involved quantitative data collected through a questionnaire, by adopting the deductive approach. The data were collected from a sample of 50 managerial level employees belonging to different departments of KPT. To analyze the data, Pearson's Correlation and Regression tests were applied. The findings of the study revealed that culture of participative goal setting does not exist at KPT. Managers do not consult subordinates while making important decisions. However, periodic review meetings during the appraisal cycle are a source of satisfaction among the employees as they are provided feedback for corrective measures.

Keywords: *Performance Appraisal System (PAS), Employee Satisfaction, Participative goal setting, Periodic Review, Final Evaluation.*

INTRODUCTION

Competing through human resource is on the priority list of most of the leading organizations whether belonging to a public or private sector organization. Competent employees are an important asset to any industry as they are the main catalyst in achieving organizational goals. Although broad parameters of success are well known to almost all organizations, there is a strong need for exploring most effective measures relevant to the specific industry. By implementing interventions appropriate to the industry, organizations can achieve a sustained competitive position in the market. There are a number of ways and means of keeping the workforce satisfied, committed and highly productive. In this context, both intrinsic and extrinsic rewards are important for ensuring durable job satisfaction

of employees (Moynihan & Pandey, 2007). Performance appraisal is considered an essential tool to motivate and develop employees. Organizations which have realized the importance of performance appraisal and implemented it carefully, have achieved an edge over their competitors (Armstrong & Baron, 2004). According to Armstrong (2010a), performance appraisal should be undertaken as a yearlong process with an aim to identify and fill employees' performance gaps and should not be considered merely a traditional one-time activity. If it happens only towards the end of the year, it is just like a Post Mortem activity which leaves little room to correct errors that have already been done.

KPT is the main and an important port of Pakistan which has been contributing towards national economy since its inception but during the past few decades, it has not grown enough to match with other ports of the region. Surplus workforce and low productivity are some of the common causes of its stagnancy, as is the case of other public sector institutions of the country. Being an important asset of the country, there is a dire need to pay attention to this organization and identify possible reasons for being stagnant and complacent. Besides, in the context of employee performance, there is a need to determine the extent to which existing performance appraisal system is effective enough to serve its purpose. So, the study has been undertaken to determine the same.

PROBLEM STATEMENT

Most of the Pakistani organizations are facing a consistent challenge of achievement appropriate level of employee satisfaction, commitment and ensuring their retention. Among various factors responsible for this challenge, poor implementation of performance appraisal system is of unique significance. KPT, being no exception, is also facing similar problems. Despite having a well-defined performance appraisal system in place, it is quite difficult for the organizations to keep the workforce suitably trained and motivated. Through this study, an effort was made to find out the extent to which employees are satisfied with existing PAS system and to what degree appraisal system is used to develop and motivate employees, at KPT.

RESEARCH QUESTIONS

This Study attempts to find the answer of following questions related to KPT employees:

- Are employees satisfied with performance appraisal system?

- Do managers give an opportunity of participative goal setting to employees?
- Do managers arrange periodic review meetings of employees?
- Are employees satisfied with their final evaluation?

RESEARCH OBJECTIVES

Following were the research objectives:

- To find out the overall impact of PAS on employee satisfaction.
- To determine the influence of participative goal setting on employee satisfaction.
- To understand the contribution of periodic review on employee satisfaction.
- To find out the impact of the final evaluation on employee satisfaction.

SIGNIFICANCE OF THE STUDY

This study aims to evaluate the impact of Performance Appraisal System (PAS) on Employee satisfaction at Karachi Port Trust (KPT). The study will help managers to understand the importance of participative goal setting. It will highlight the importance of periodic review meetings and timely feedback. It will tell the worth of fair evaluation towards employee satisfaction. It will help to increase the satisfaction level of employees because employees are an asset of an organization and performance appraisal is a tool which measures the performance level so when the evaluation will be effective, it will automatically improve the motivation and satisfaction level of employees. The study will also help policy makers to correct the perception about public sector organizations, as in public sector organizations, performance appraisal is perceived as not so effective system. Thus the study findings will help them to devise policies to correct that perception.

LITERATURE REVIEW

Employee Satisfaction

Almost all leading organizations desire to maintain a sustained competitive edge in the industry through their human resource. Long-term retention of good employees is the dream of every employer. Employee satisfaction is essential for commitment and enhanced performance. One of the main aspects of Human Resource Management is the measurement of employee satisfaction. Organizations have to ensure that employee satisfaction is their top priority because it is quite essential for the cumulative organizational outcome. Effective organizations must have a

responsibility to support the employee satisfaction (Bhatti & Qureshi, 2007). Employee satisfaction is given highest priority by the organizations because only satisfied employees can help the organization in achieving its goals. Many researchers have supported that employee satisfaction is a factor in employee motivation, employee goal achievement and positive employee morale in the workplace. Employees shall be much steadfast and useful when they are fulfilled, thus fulfilled workers stimulate customer faithfulness and convincing competence (June & Poon, 2004).

Brikend (2011) has focused on Job fulfillment and established that it is affected by the variables, for example, kind of job, pay, development chances, fair evaluation, job assessment meetings and work environment. According to Miller (2006) better relationships with peers, competitive salary & benefits, good job environment, opportunities for growth, talent improvements or other similar benefits are usually linked with enhanced employee satisfaction.

Performance Appraisal System – A Tool to Develop & Satisfy Employees

It is very important for organizations to develop a performance appraisal system that is looked upon by the employees as transparent and a source of development and career progression. Employee satisfaction is an important outflow of performance appraisal system. Performance appraisal system is a tool which identifies and reveals the strengths and weaknesses of an employee and helps managers in developing their employees while providing suitable rewards (Sarkar, 2016). It is a process in which a manager appraises an employee about performance gaps and developmental needs. There are a number of studies which look at the impact of performance evaluation system on workers' career development and job satisfaction (Fletcher, 2001). Latham, Sulsky, and Macdonald (2007) emphasized that performance appraisal is a source of feedback and goal setting; having linked it with performance theory, a well-defined PAS helps to determine the following:

- The relevant performance dimensions.
- The performance standards or expectations.
- Situational constraints to be weighed when evaluating performance.
- The number of performance levels.
- The extent to which performance should be based on absolute or comparative standards.

Armstrong (2010b) mentioned that performance appraisal system is an

employee developmental tool that should result in improvement of needed potential of concerned people through requisite efforts both at the individual level and also with the help of managers. Briscoe and Claus (2008) have pointed out that an effective PAS always facilitates in setting realistic work goals, establish desired work standards, evaluate performance, provide timely feedback, identify developmental needs and distribute rewards on the basis of equity. Performance appraisal system is the process which is used to identify performance gaps, encourage employees to develop their skills, measure their competence, evaluate their performance, and reward them if they so deserve. As mentioned by Dessler and Varkkey (2004), an effective PAS is clearly linked with overall strategy and objectives of the organization.

According to Holpp (2012), performance appraisal is a process that is firmly connected to the firm's system while utilizing the worker's aptitudes, experience, and objectives in a way that gives a feeling of fulfillment and accomplishment for both the worker and supervisor. Performance appraisal is considered to be a tool to encourage employee performance (Haneman & Werner, 2005). According to Maund (2001), performance appraisal provides a clear understanding to the managers and employees about the desired outcomes and facilitates through effective communication. It helps to for understand the following:

- The job that should be done.
- The criteria by which achievement will be observed.
- The objectives of the entire appraisal exercise
- The appraisal feedback on the achievement of targets.

Khan (2007) mentioned that the central target of performance evaluation is to encourage administration in doing regulatory choices identifying with promotions, firings, layoffs, and boosts in salary. It helps the manager to evaluate the performance of his employees and significantly provides more specific reasons for decisions on promotion, salary raises, training & development needs and layoffs.

Components of Performance Appraisal. Based on literature review three main components of a performance appraisal system have been identified:

Participative Goal Setting. Goal setting is an essential and initial part of performance appraisal system when managers define goals to the employees

and guide them towards the specific direction to achieve those goals. In the context of participative goal setting, Locke and Latham, (2002) described that in management practices participative goals have a prevalent effect on employee conduct and his performance. DuBrin (2012) stated that managers generally acknowledge objectives setting as a way to enhance and maintain execution. Holpp (2012) stated that “goals setting refers to the expected outcome statements that define what an organization is trying to accomplish”. Participative goal setting results in complete support of all involved and leads to better performance. Locke and Latham (2012) stated that specific goals help in achieving other alluring authoritative objectives, for example, decreasing non-appearance, lateness, and turnover.

Periodic Reviews and Feedback. The purpose of periodic reviews is to assess the performance pace, identify if any anomaly is observed, discuss any problem faced by the employees, provide them positive feedback about performance standards as compared to the expectations and render all possible support to overcome anomalies. Roberts (2003) mentioned that in an effective performance appraisal system, regular assessment or review of performance is essential; he further suggested that for an appraisal system to be extremely effective, ongoing formal and informal feedback should be made an integral part. Periodic reviews encourage employees to complete the goals because when managers periodically assess employees’ performance, it helps them to correct or improve their weaknesses. Roberts (2003) explained that without timely feedback, employees are incapable of making amendments in job performance or obtaining positive reinforcement. He further described that for changing employee work behavior; performance feedback is quite useful, as it leads to job satisfaction and enhanced performance.

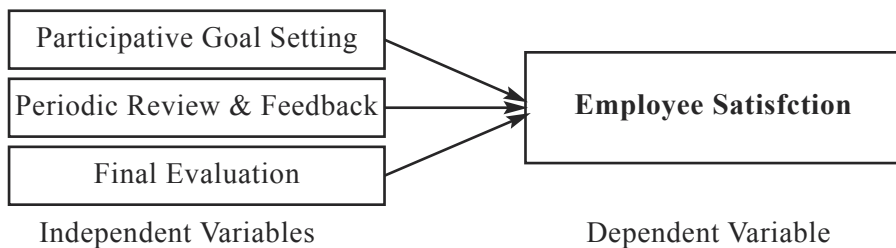
Final Evaluation. The basic purpose of the final evaluation is to determine employee performance in terms of quantity, quality, and efficiency. By identifying performance gaps, managers take appropriate measures to fill the deficiencies. In this phase, which is also called the ‘rating phase’ and ‘reward phase’, written evaluation by the evaluator is endorsed that involves achievement of the employee during the evaluation cycle. On the basis of this appraisal outcome, employees who merit organizational rewards are suitably compensated for their achievements. Final evaluation provides a clear picture about employee’s strong and weak areas and training needs are also identified. Randi, Toler, and Sachs (1992) identified following benefits of productive performance appraisal:

- Employee knows about his/her strengths and weaknesses
- They agree upon new goals and objectives.
- In the evaluation process, the employee is an active participant.
- Supervisor and employees have a relationship of an adult-to-adult level.
- Employee reintroduces his/her interest in present and future job.
- Training needs are recognized.
- Manager feels more comfort in observing the performance of subordinates.
- Workers feel that the manager is really concerned about their desires and goals.

After final evaluation, appropriate coaching and rewards are provided to employees according to the performance.

THEORETICAL FRAMEWORK

From the literature review, following variables have been identified and the theoretical framework has been developed:



RESEARCH HYPOTHESES

Following three hypotheses were formulated after a comprehensive study of the literature review:

- H1.** Participative Goal setting has a positive impact on employee satisfaction.
- H2.** Periodic review & feedback have a positive impact of on employee satisfaction.
- H3.** There is a positive impact of final evaluation on employee satisfaction

RESEARCH METHODOLOGY

The research is explanatory in nature and follows quantitative design. The research adopted a deductive approach whereby hypotheses were first formulated followed by preparation of a well-structured questionnaire. The data was collected through the structured questionnaire, by using a Likert scale, with the range of 1-5, taking 1 as lowest and 5 as the highest value.

The total number of managerial level employees working in different departments of KPT is 291 which was the target population for this research. A total of 50 managers were chosen as a sample size, including both male and female employees belonging to various departments of KPT. Primary data was collected through a questionnaire. The sampling technique adopted was snowball or non-probability convenience sampling method in which people from the target population were approached, ensuring convenience of respondents in terms of availability at a specific time, accessibility and geographic proximity (Dörnyei, 2007).

Adopting different statistical tools including Pearson Correlation and Regression analysis, the data was analyzed to test the hypotheses, by using Statistical Package for Social Sciences (SPSS).

DATA ANALYSES & RESULTS

Test of Reliability

The reliability test predicts the extent to which constructs are is reliable. When Cronbach’s alpha reliability test’s value is greater than 0.7, the research instrument is said to be reliable but in the case of less than 0.7 value, the questionnaire is not reliable.

Table 1. Reliability Statistics

Cronbach’s Alpha	N of Items
.772	27

The overall questionnaire reliability value is 0.772 which is greater than 0.7, hence research instrument of this research is proved to be reliable.

Hypotheses Testing

Table 2. Pearson Correlation

		PGS	PR&F	FE	ES
PGS	Pearson Correlation	1	.588**	.405**	.579**
	Sig. (1-tailed)		.000	.002	.000
	N		50	50	50
PR&F	Pearson Correlation		1	.355**	.787**
	Sig. (1-tailed)			.006	.000
	N			50	50
FE	Pearson Correlation			1	.710**
	Sig. (1-tailed)				.000
	N				50
ES	Pearson Correlation				1
	Sig. (1-tailed)				
	N				

** Correlation is significant at 0.01 level (1-tailed).

Table 2 depicts the results obtained through Pearson Correlation. According to the first hypothesis, “the impact of participative goal-setting on employee satisfaction”, the r value is 0.579 which indicates a moderate, positive relationship of participative goal setting with employee satisfaction; p -value is .000 which is less than .01. This means that impact of participative goal setting on employee satisfaction is significant. Hence, the first hypothesis is accepted.

Regarding second research hypothesis “the impact of periodic review on employee satisfaction”, the r value is 0.787 which means that the relationship between periodic review and employee satisfaction is strong and it is significant also because p -value is .000 which is less than .01; hence 2nd hypothesis is accepted.

As far as the third hypothesis, “the impact of final evaluation on employee satisfaction”, is concerned; the r value is 0.710 which means that the relationship between final evaluation and employee satisfaction is quite strong. Moreover, the p -value is .000 which is less than .01. This shows that the relationship between final evaluation and employee satisfaction is significantly strong. This third hypothesis is also accepted.

Regression Analysis

The Regression analysis is a statistical procedure for calculating the impact of independent variables on the dependent variable. It is widely used for forecasting and prediction purpose. The multiple regression models predict the value of a variable based on the value of two or more other variables. The Regression analysis covers model summary, ANOVA table and coefficients table.

Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.912 ^a	.832	.822	.34393

a. Predictors: (Constant), Participative Goal Setting, Performance Review, Final Evaluation.

These values in Table 3 indicate as to how well a regression model fits the data. The value of R is 0.912 and this value indicates a good level of prediction. R Square value is 0.832 which indicates that this model explains 83% variation of all independent variables in the dependent variable. Similarly, the value of Adjusted R Square is 0.822 and the Std. the error of the estimate is 0.34393. All these values displayed in Table 4.3 are quite favorable for the research.

Table 4. ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	27.059	3	9.020	76.249	.000 ^b
	Residual	5.441	46	.118		
	Total	32.500	49			

a. *Dependent Variable: Employee Satisfaction*

b. *Predictors: (Constant), Participative Goal Setting, Performance Review, Final Evaluation*

The ANOVA Table 4 presents the comparison of the difference of the means among more than two groups. Here, independent variables statistically predict the dependent variable; $F = 76.249$ at the significance level of 0.000, $p < 0.05$.

Table 5. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.892	.344		-2.596	.013
	Participative Goal Setting	.041	.104	.031	.396	.694
	Performance Review	.634	.080	.597	7.907	.000
	Final Evaluation	.541	.074	.485	7.264	.000

a. *Dependent Variable: Employee Satisfaction*

Results of regression are summarized in Table 5. The coefficients have expected signs; they have a positive impact on dependent variable which is employee satisfaction. The coefficient of participative goal setting shows that with the increase in participative goal setting, the motivation of employees also increases. The coefficient of participative goal setting shows that this variable has comparatively less impact on employee satisfaction as indicated by its value of 0.041 and p-value of 0.694 shows that variable is statistically not significant. Hence, the research cannot reject the null hypothesis and concludes that there is no impact of participative goal setting on employee satisfaction.

The coefficient of ‘performance review’ shows that this variable has a significant impact on employee satisfaction as indicated by its value of 0.634; p-value ($p < .05$) also shows that the variable is statistically significant. So, the null hypothesis that ‘performance review has no impact on employee satisfaction’ is rejected.

The final evaluation is found to be a strong variable in determining

employee satisfaction. The value of $p = 0.000$ which is $<.05$. It means that this variable is useful and is positively related to employee satisfaction. By identifying performance gaps, managers may take appropriate measures to fill the deficiencies.

CONCLUSION

The research has examined the impact of performance appraisal system on employee satisfaction at Karachi Port Trust. Human resource is an important asset of any organization, hence for the development and retention of this asset "Performance Appraisal" is considered to be an important HRM tool. The findings show that there is a positive relationship between the three selected predictors with employee satisfaction. The findings also indicate that participative goal setting creates no significant impact on employee satisfaction whereas periodic review and final evaluation create a significant impact on employee satisfaction at KPT. Participative Goal setting has no impact which may be attributed to our national culture where junior employees are not encouraged for participation during goal setting process. Likewise, in KPT there is no culture of participative goal setting and managers do not give a chance to employees to take part in decision making. Managers periodically review the performance of their employees and employees are found to be satisfied with the final evaluation. However, it is true that employees are not involved in decision making with regard to setting goals. The study has opened a new door for future researchers by establishing the significance of organizational culture; this culture is depriving employees of taking part in decision making, especially at the time of goal setting.

RECOMMENDATIONS

On the basis of weaknesses identified during analysis, the following research recommendations are presented:

- Karachi Port Trust should implement performance management system (PMS) more seriously because PA is an integral part of PMS.
- PA should be done twice a year, as opposed to traditional 'once a year' activity.
- Managers should be trained to compile and prepare the appraisal forms.
- Managers of various departments should be encouraged for participative goal setting.

- Self-appraisal of employees' should be introduced.
- Employee feedback and their suggestions for improvement may be encouraged.
- PAS should be tightly linked with pay raises, promotion, training and career development.

AREA FOR FUTURE RESEARCH

Future researchers may identify new variables which have an impact on employee satisfaction at KPT. The impact of culture on participative goal setting could also be explored. Moreover, instead of quantitative research, rigorous qualitative techniques may also be applied for the analysis. Furthermore, a similar study may also be undertaken by the future researchers in others public and private sector organizations.

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DOES THE HEDONIC RISK APPEAL IN ADVERTISING, EFFECT CONSUMER BEHAVIOUR?

Dr. Faryal Salman, Fariha Raza, and Dr. Amir Manzoor

ABSTRACT

This research explores the impact of hedonic risk on brand recall of a non-cola soft drink, Mountain Dew, customer attitude towards it and its consumption among the youth in Pakistan. This research determines whether youth in Pakistan associate pleasure and happiness with the risk that is shown through challenging activities shown in the ads of Mountain Dew and defines whether such themes increase the recall of the brand and impact the attitude towards and consumption of the brand. This research was conducted in Karachi and sample was drawn from the educated youth of Karachi who are also the consumers of the selected beverages. The methodology used was quota sampling. Data was collected through personally administered questionnaires. Data was analyzed using inferential statistical techniques. The findings of the study concluded that youth in Pakistan associate happiness and pleasure with adventure. The hedonic risk in advertising is also associated with brand awareness of Mountain Dew and positively affects the attitude towards the brand.

Keywords: *Hedonic risk, Gratification, Brand Awareness, Brand attitude, Brand consumption*

INTRODUCTION

Advertising is a paid, non-personal applied communication that is targeted towards a customer group to inform, persuade or remind about a particular product, service or idea and the sponsor is identified (Arens, 2006). It is an integral element of the communication mix. With the advancement in technology and a shift in the importance of customer focus, the emphasis on advertising has also increased. Customers are being repeatedly exposed to different advertisements resulting in clutter. In order to cope with the challenge of making marketing communication stand out in the

communication clutter, marketers have been deploying different themes to make advertising more memorable and effective. The broad category of the advertising themes can be classified into rational and emotional themes. Ads may focus on the utility of the brand using the rational appeal, or they may focus on the emotional aspect of using the product, using the emotional theme. However, innovative ideas are being developed continuously to make advertising more effective. These innovations are not limited to the advertising content but include advertising channels as well (Arens, 2006). This research aims to quantify the impact that hedonic risk appeal has on the consumption of Mountain Dew in Pakistan. Mountain Dew is more than 60 years old global brand, throughout its life cycle, its ads have featured active young people who enjoy challenging outdoor activities. The ads used action-oriented approach. Since 1985, Mountain Dew has remained true to its core essence of exuberance across all the integrated marketing communications.

Research Gap

The available literature reflects on establishing the relationship between hedonism and risky products such as drugs, alcohol and intense to insane sports. However, there is a dearth of research that associates hedonistic risk with products like beverages, chocolates and other confectionary items that are risk-free. As noted by Allen, Gupta, and Monnier (2008), customer behavior is generally affected by hedonistic pleasures through inner happiness and personal values; with less focus on measuring hedonism in beverage consumptions. The current study is an attempt to fill this gap by empirically testing the relationship between hedonic risk and its impact on brand awareness, brand attitude, and consumption among the millennial. In addition to this, the association between hedonism and advertising appeals is a contemporary concept that requires empirical investigation.

PROBLEM STATEMENT

Hedonic risk can be defined as the risk that provides pleasure and happiness; the use of advertising campaigns showing such risks to attract the consumers is an innovative idea being used by advertising companies in Pakistan. This paper intends to study the perception of hedonic risk and its influence on Mountain Dew's brand recall, brand attitude and brand consumption by Youth of Karachi. Further, this research also explains if the males and females are affected differently by such themes being used in advertisements.

SIGNIFICANCE OF THE RESEARCH

This research is important for practicing marketers as well as

academicians. The marketers can use this research to improve the effectiveness of their campaigns. Academicians will find in this study an effort to quantify the relationship between advertising theme that is based on risk-pleasure and the beverage consumption.

LITERATURE REVIEW

Advertising is a paid, non-personal applied communication that is targeted towards a customer group to inform, persuade or remind about a particular product, service or idea and the sponsor is identified (Arens, 2006). It is an integral element of the communication mix. With the advancement in technology and a shift in the importance of customer focus, the emphasis on advertising also increased. Customers are being repeatedly exposed to different advertisements resulting in clutter. In order to cope with the challenge of making marketing communication stand out in the communication clutter, marketers have been deploying different themes to make advertising more memorable and effective. The broad category of the advertising themes can be classified into rational and emotional themes. Ads may focus on the utility of the brand using the rational appeal, or they may focus on the emotional aspect of using the product, using the emotional theme. However, innovative ideas are being developed continuously to make advertising more effective. These innovations are not limited to the advertising content but include advertising channels as well (Arens, 2006).

While the traditional connotation of risk has been negative, the contemporary perspective has changed the connotation of risk from negative to positive (Breton, 2004). Risk fosters independence in adolescents. Risk taking improves the self-image of a person and develops his identity. The turbulence caused by the risk-taking behaviors shows a determination to get rid of one's sufferings and to fight so that life can be lived. This perspective of risk imbues it with a positive connotation.

There exists a need to develop a clear sense of self in young people (Evans, Mixon, Rozmus & Wysochansky, 2005). This need often manifests itself in the exploration of risk-taking behaviors. Through indulging in risky activity, a person can exercise autonomy and independence in decision making. This instills a sense of self-efficacy, i.e., the expectation that an individual has of successfully performing a behavior and exerting personal intentions on changing their behavior.

Adventure and Gratification

Youth want to live an exciting life. They want to have freedom. Happiness and inner harmony matter a lot for them. They tend to indulge in activities that offer them the opportunity to feel the excitement and rush. Such activities also include risk taking activities because, in their age, youth fail to realize their own mortality. These activities are particularly undertaken by adolescents rather than any other age group. Adolescents show a behavior there is characterized by increased peer-directed social interactions and risk-taking and novelty-seeking activities. Thus, positive hedonic sensitivity is accentuated in adolescents as compared to people younger or older than them (Fitzwater, Varlynskey, & Spear, 2010). This leads to the conclusion that youth among all the age groups will pursue risky activities in order to lead an exciting and joyful life. Hence youth are accepting and manifesting a positive connotation of risk in their lives. Youth may engage in risky activities in pursuit of inner satisfaction. It has been researched that when young people experience stress, they engage in risky activity. Engaging in such an activity releases them from every day, routine pressure. Since young people tend to handle risks by sticking together because social bonding is important for them, they indulge in risky activities as group activities rather than performing them individually (Evans, Hunt, & Kares, 2007). People are willing to take the risk for present pleasure (Borsky & Raschky, 2009). The perception of risk has evolved from 'challenging' to 'pleasure-giving.' Hedonism (pleasure) and the risk that go hand in hand are described by the term 'hedonic risk' which means the risk that gives pleasure. Youth's participation in adventure sports has increased exponentially. Even while living a sedentary lifestyle, the individuals portray a passive risky behavior. As work becomes increasingly sedentary, people may increasingly seek the physical sensations that work used to provide in leisure time. This is especially true in the virtual world. People engage in virtual games depicting high-risk sports activities and risky adventures to derive a leisure that is filled with sensations that earlier were provided by real life activities (Johnston, 2003). People willingly engage in risk generating behavior because they derive a positive utility and value out of such activities (Allman, Mittelstaedt, Martin, & Goldenbers, 2009).

It is highly interesting to note that the recent demand for risky activities may not be so much a demand for risk as it is a demand for a set of non-risk activity attributes that just happen to be associated with risk, e.g., the feeling of exhilaration and the feeling of 'rush' (Johnston, 2003). Marketers have used this insight to the best of their capabilities. A unique experience is

provided to the audience in advertisements using this initiative (McCole, 2004). As advertising has progressed, the linguistic discourse has been replaced by images which, by virtue of their non-discursive, emotional, associative and iconic nature have become more powerful tools in advertising (Bhatia, 1992). This phenomenon of ‘commodity fetishism’ in which goods, services, individuals etc. are imbued with symbolic properties and are thus associated with socially desirable traits, was identified by Karl Marx (Marx, 1867). Contemporary scholars built upon this idea and concluded that contemporary advertising invents qualities for products and these qualities become their essence (Jhally, 2014). When customers start focusing on these invented qualities that come to be described as the core essence of the product, they lose connection with the practical utility of the product and derive new utilities out of that product (Bohm & Batta, 2010).

The media culture has transformed into figurative media because the image has assumed a greater importance than linguistic discourse in modern advertising (Lee and Johnson, 2009). The imagistic techniques used in advertising affect the individuals subliminally and unconsciously. At the most basic level, this advertising technique presents sensually appealing images of commodities and communicates the promise of self-realization through the purchase or consumption or usage of the advertised commodity. It means that advertising defines the personalities of the people who buy or consume the advertised brands (Altan, 2008). Customers are now trying to achieve self-realization through consumption of products that have been imbued with invented qualities. The customers are also willing to pay more for the symbolic satisfaction that they derive out of a particular product.

The youth culture is defined by the active engagement on ubiquitous internet connectivity, fostering an ongoing relationship with brands. Marketers are targeting the youth segment by using customer engagement techniques. Consumers’ engagement is defined as a subtle conscious process in which consumers begin to combine ad’s messages with their own associations, symbols, and metaphors to make the brand more relevant to them. The marketers thus ‘seduce the customer into beginning that subconscious processing of the brand’(Montgomery & Chester, 2009). The marketers are utilizing this knowledge to develop ad content that offers the youth an opportunity for self-reflection, catharsis, and self-documentation. The growing application of neuroscience in marketing is aimed towards influencing the customers in making emotional choices rather than rational choices. This is especially true for the advertising campaigns for energy drinks and carbonated

soft drinks. Some examples are Red Bull, Mountain Dew, and Coca-Cola. Besides beverages, other product categories also use this appeal e.g. chocolates (e.g. Cadbury) and heavy bikes (e.g. Harley Davidson).

Hedonic Risk and Brand Attitude

Finding an identity and feeling powerful and in control are the main symbolic appeals that are being used in the advertising of foods and beverages (Schor & Ford, 2007). Advertising has become an integral part of modern culture. The evolution in advertising has transformed the function of commodities from being the primary satisfiers of needs to being the primary communicator of meanings. Advertising imbues brands with personality (Arens, 2006). Advertising, in modern culture and in today's capitalistic market, works by creating a system of meanings, prestige, and identity, by associating the commodity with certain lifestyles, symbolic values, and pleasures. Advertiser's role is to inform the individuals about what to purchase and consume in order to become fashionable, popular and successful. Hence in today's world, the commodities have been transformed from want satisfiers to being a projective medium themselves.

Hedonic Risk and Brand Consumption

A person compares the human values symbolized by food or beverage to his or her own set of values and self-concept. In cases where such comparison shows a congruency between the value symbol of the product and the values held by the individual, the individual experiences a favorable aroma or taste of the food and beverage. In cases where this congruency is absent, the individual does not particularly like the taste and aroma of that food or beverage (Allen, Gupta and Monnier, 2008). As an example, if Gatorade symbolizes a 'sense of achievement' then those people who individually value the sense of achievement will perceive Gatorade as having a good taste. They will develop a favorable attitude towards Gatorade and will show a strong intention to purchase this as well. Another example is that of Nike. Nike brand symbolizes the human value of self-direction, i.e. setting one's own goals. Consumer's preference for Nike and his intention to purchase Nike is determined by how much he values self-direction. The congruency between the human values given to products and the importance that customers give to those values personally determines and shapes the attitudes towards brands. Those who endorse the human value that is attributed to a brand will develop a favorable attitude towards that brand. Those customers who will reject that value will develop a negative attitude towards the brand.

Nadirah, Ghazali, Bakar, and Othman, (2016) also used Schwartz (1994) Value Scale and determined that personal values of security, hedonism, benevolence and self-direction influence the decisions pertaining to drink consumption. Hence if the congruity between the symbolic value of the drink and the personal value of the individual is high, that individual will likely make a purchase decision in favor of that drink

This research aims to quantify the impact that hedonic risk appeal has on the consumption of Mountain Dew in Pakistan. Mountain Dew is more than 60 years old global brand. Throughout its life cycle, its ads have featured active young people who enjoy challenging outdoor activities. The ads used action-oriented approach. Since 1985, Mountain Dew has remained true to its core essence of exuberance across all the integrated marketing communications. Arens (2006) quotes the Director of Marketing for Mountain Dew, Scott Moffitt, that

The brand is all about exhilaration and energy. Its unique selling proposition remains the same - it is the ultimate, indulgent, thirst-quenching soft drink. Mountain Dew defines its core market as active, young people in their teens, as well as young adults aged 20 to 39 years. It specifically targets urban youth. The prototypical customer of Mountain Dew is an 18-year-old street smart male teen. (Arens, 2006)

The marketing mix of Mountain Dew is well defined and clearly, helps in the implementation of its positioning strategy. The product is an energizing, thirst-quenching soft drink with unique citrus flavor and an image of youthful exuberance, exhilaration, and adventure. It extensively advertises on TV, radio, outdoor, print and internet media. It sponsors sports events and hosts public relation activities. It is involved in brand activation. It places great emphasis on creating “Dew-x-perience through sponsoring extreme athletes and sporting events. Marketing team uses a variety of media to create a special environment for Mountain Dew (Arens, 2006).

Dew personifies its product concept not only through events but through a team of 10 extreme athletes, each representing a sport more daring than the next. The same attitude is passed on to Dew advertising. The commercials of dew have an edginess and audacity, not typically

associated with big cola companies. Campaigns have remained true to the youthful feel of the brand. “Do the Dew’ is now the longest running continuous campaign in the history of soft drinks (Arens, 2006).

The literature available in advertising and marketing journals shows that researches have been done independently on subjects like hedonism, beverage consumption and emotional appeals of risk, fear, and thrill in advertising. But the association of hedonism with feelings usually associated with risk of developing advertising appeals is relatively new. There is a gap in research which shows how the hedonic risk is affecting the consumer behavior towards beverages among the youth in Pakistan. The brand selected for this research is Mountain Dew, a non-cola beverage, currently owned by Pepsi Co. Since the demand for a set of non-risk activity attributes that just happen to be associated with risk is an under-researched area, this research focuses on one aspect of this phenomenon, i.e. the impact of using such an appeal in the advertising of a beverage, Mountain Dew, on its brand awareness, attitude, and consumption. Taking into consideration the time constraint, the research focuses on a sample of educated youth of Karachi to study this impact.

RESEARCH HYPOTHESIS

H₁: Gratification (happiness and pleasure) is associated positively with Adventure

H₂: Hedonic risk in advertising theme is associated with strong brand awareness.

H₃: Hedonic risk in advertising theme positively affects brand attitude.

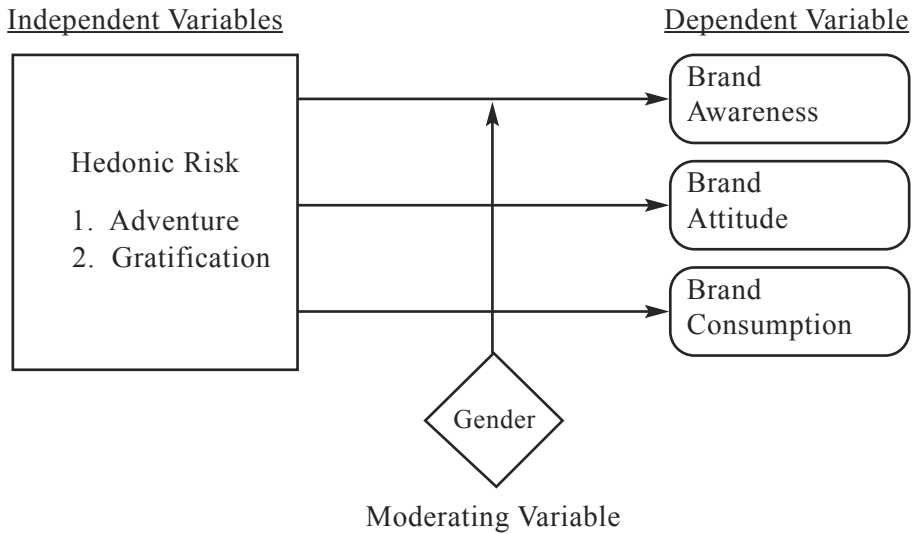
H₄: Hedonic risk in advertising theme positively affects brand consumption.

H₅: Hedonic risk in advertising theme affects brand awareness, attitude and consumption equally in young males and females.

PURPOSE OF THE STUDY

The purpose of this research is to understand the relationship between hedonic risk, advertising and brand awareness, attitude and consumption of beverages in youth in Pakistan. The incorporation of risk related happiness is a new concept in the field of advertising. This is referred to as hedonic risk. This research is a preliminary learning in the practical application of changing perceptions of risk in the field of advertising and its impact on beverage’s brand awareness, attitude, and consumption among Pakistan’s youth. It also determines whether males and females are equally affected by the hedonic risk themes of beverage advertisements.

THEORETICAL FRAMEWORK



RESEARCH METHODOLOGY

Research philosophy deals with the fundamental question of how one should understand reality. The branch of philosophy that is concerned with the understanding of reality is called epistemology. Epistemology is the study of knowledge. Knowledge is the relationship between the knower and the known. Every research is embedded in the relationship between the researcher and the observation. Hence the research philosophy behind this research will be used to understand the relationship between risk-related pleasure themes used in advertising campaigns and the consumption of the advertised beverage brand, Mountain Dew. This relationship is based on sense experience and rationality.

This research is conducted under the paradigm of post-positivism which is based on the epistemological base of empiricism and rationality. Therefore, the inherent limitations of this philosophy are that sense experiences can be deceptive. Therefore while conducting this research; the data collection stage has been monitored closely so that errors related to sense deception are minimized. The paradigm of post-positivism involves rationality too. Rationality is based on induction and deduction. One limitation pertaining to rationality is that the conclusion drawn from the research is not entirely certain. The hypothesis will always remain probable and will not become certain. Therefore, the research process and

methodology take into account that sufficient observations are recorded in order to increase the reliability and probability of the conclusion being true and valid. Post-positivism concentrates on sense experience and language and at times it might use induction. It is assumed under post-positivism that empirical study based on finite samples will lead towards a general hypothesis which will be true until proven false.

The most important advantage of using this methodology is that if the falsifiable proposition is not refuted on the basis of the empirical evidence, the hypothesis will be more reliable. This is a quantitative research that aims to quantify the impact that hedonic risk themes used in advertising of Mountain Dew have on its brand awareness, attitude and consumption of among educated youth in Karachi.

Research Population

The population for this research is the total target market of beverages present in Karachi. The young and old of Pakistan are the target market of beverage companies in Pakistan. The demographic profile of Pakistan shows that the population of Pakistan that is younger than 15 years of age is 43.4%, the population between 15-64 years of age is 53.08% and the population above 64 years of age is 3.5%. United Nations defines youth as the persons between 15-24 years old. This definition is applied uniformly across the world for statistical consistency. The youth population in Pakistan is 19% of the total population of Pakistan. Out of this, 51% are males and 49% are females (UNSD Demographic Statistics, 1998). Since the instrument is developed in the English language, the population for this research will be the educated target market of beverages. Therefore the population consists of educated males and females between 15-24 years of age, residing in Karachi.

Research Sampling

The Quota sampling technique which is a non-probability sampling technique is used in this research. This decision was made because the data could not have been collected from the entire population and statistical inference had to be made and no suitable sample frame was available. Despite these conditions, it was still desirable that the sample is a representative sample of the total population. Since relevant quota variables were available, quota sampling was selected as the sampling technique for this research. The population is first divided into segments, male and female. Subjects are drawn in proportion to their original

percentage in the population. Hence this sampling is effective in making statistical inferences although a non-probability sampling technique is used (Saunders, Lewis, & Thornhill, 2011). The sample size is 384 as the population is large (Sekaran and Bougie, 2010).

Research Instrument

Primary data has been collected through questionnaires that have been filled by the elements of the sample. The questionnaire was based on the following measures related to marketing stimuli:

- Hedonic motivations (Arnold & Reynolds, 2003)
- Feelings towards ads (Edell & Burke, 1987)
- Consumption of carbonated soft drinks and energy drinks (Aaker, 1996)
- Purchase intention (Mackenzie, Lutz, & Belch, 1986)

The concept of hedonic risk has two dimensions: adventure and gratification (Arnold & Reynolds, 2003). The dimension of adventure is captured through elements like a sense of adventure, stimulating experience, feeling of thrill and rush and a feeling of fear. These elements have been measured on a 5 point Likert scale. The statistical mean of these responses was calculated to determine the dimension, Adventure.

The dimension of gratification was captured through elements like pleasant, cheerful, release stress (Arnold and Reynolds, 2003). These were measured on a 5 point Liker scale and the statistical mean was calculated to capture the dimension, gratification. Therefore, happiness and pleasure are the main constructs of gratification.

Brand attitude has been measured through the scale feelings towards ads created by Edell and Burke (1987). Attitude is based on the feelings (Keller, 2008). This dimension has 26 elements that capture warm and upbeat feelings. This was measured on a 5 point Likert scale and the statistical mean was calculated to capture the dimension warm and upbeat feelings as a measure of brand attitude.

Consumption and purchase intention has been judged through the scale developed by Mackenzie, Lutz, and Belch (1986). Consumption was measured in terms of average actual consumption per week and purchase intention was measured on a 5 point Likert scale. The average of these responses captured the dimension of consumption of Mountain Dew.

Research Procedure

The steps outlining the research procedure are:

- Study how hedonism started being associated with risk-taking activities
- Study how this phenomenon was used in the field of advertising
- Verify if the hedonic risk theme is positively affecting the brand awareness, attitude and the consumption of Mountain Dew in the educated youth in Karachi.

The first research objective is to determine whether youth associate pleasure and happiness with risk in advertising themes. The scale of hedonic motivations developed by Arnold and Reynolds (2003) was used to capture the dimension of adventure through elements such as adventure, stimulation, feeling of thrill and rush and fear. Similarly, the scale developed by them has been used to capture the dimension of gratification through elements such as pleasant, cheerful, and release stress. The correlation analysis determines the association between these two variables.

The second research objective is to determine whether the hedonic characteristic of risk used in advertising themes increases the brand awareness of beverages. Aaker (1996) used the nominal scale for categorizing the aided recall through projective techniques. In this research, aided recall through projective technique was used. The questionnaire showed three pictures related to extreme sports. With the help of these pictures, respondents were asked to name a brand of beverage that they can associate with these pictures. In another question, respondents were asked whether they can recall any brand of Mountain Dew. The relationship between these two non-parametric data determined whether the hedonic risk influences brand recall.

The third research objective is to determine whether the hedonic risk affects the attitude of the consumers towards the brand. This is accomplished by using the construct of warm and upbeat feelings towards ads. Edell and Burke (1987) had developed a scale containing 65 items having three sub-dimensions to determine the feelings towards ads. These were upbeat (26 items), warm (14 items) and negative (12 items). In this research, only the items related to upbeat feelings have been chosen to create a fit between research objective and the data collected. Regression analysis determines the effect of hedonic risk on brand attitude.

The fourth research objective is to determine whether the hedonic risk used in advertising increases the consumption of beverages. Mackenzie, Lutz, and Belch (1986) have used the scale of purchase intention to proxy for the future consumption. The same has been used in this research. In addition, the respondents were asked to state their actual average consumption of Mountain Dew. They were also asked whether the ad of Mountain Dew creates a desire to consume the brand. Together these elements determined the consumption of the brand. Regression analysis determines the effect of hedonic risk on brand consumption.

The fifth objective of the research is to determine whether the hedonic risk affects males and females equally in terms of brand awareness, attitude, and consumption. In order to measure this, the questionnaire asks the respondent's gender. Since the attitude towards the brand and the consumption were measured in interval and ratio scale, t-tests for two independent samples have been used to determine whether attitude and consumption are different between males and females. However, since brand recall is measured on a nominal scale, chi-square test of independence for discrete data has been used to determine whether a brand recall is different between males and females.

DATA ANALYSIS

60% of the respondents in the study were male and 40 % were female. The majority of the respondents were aged between 21-24 years. Through frequency tables, the outliers have been identified. Since the questionnaires had been numbered while data entry, the data was cross-checked with the original questionnaire and data entry mistakes were corrected.

Reliability

Reliability is measured by testing for the consistency and stability of the operationalized elements. The scale developed by Arnold and Reynolds (2003) shows that the concept of Hedonic fulfillment has two dimensions: adventure and gratification. There are 4 elements within the dimension of adventure. There are 3 elements within the dimension of gratification. The reliability of elements within the dimension of Adventure as measured by Cronbach's Alpha is 0.635. The reliability of the gratification elements is 0.73. These two are reliable to a satisfactory level (Sekaran & Bougie, 2010). There are 26 elements within the dimension of warm and upbeat feelings as developed by Edell and Burke (1987). The Cronbach alpha for these elements is 0.961. This is a good measure of the reliability (Sekaran & Bougie, 2010).

Validity

The validity of the instruments was checked to ascertain that all the items of the construct are related and discriminant validity ensured that nonrelated items do not relate too much (John & Martinez, 2000). The variables of hedonistic risk were checked for the factor analysis. As per the literature factor loading with values above 0.30 are considered adequate for final analysis (Child, 1990).

RESULTS

The first alternate hypothesis is that gratification (happiness and pleasure) and adventure (risk taking) are related. This hypothesis was tested at 0.01alpha (two-tailed test) through correlation analysis. Correlation determines the direction, strength, and significance between gratification and adventure. This correlation is positive. Its strength is 0.572. This relationship is highly significant. Hence we accept the alternate hypothesis that gratification is related with adventure. (See Table 1)

Table 1. Correlation between Gratification and Adventure

		Gratification	Adventure
Gratification	Pearson Correlation	1	.572**
	Sig. (2-tailed)		.000
	N	384	384
Adventure	Pearson Correlation	.572**	1
	Sig. (2-tailed)	.000	
	N	384	384

***. Correlation is significant at the 0.01 level (2-tailed).*

The second alternate hypothesis is the hedonic risk in advertising theme is associated with brand awareness. The hedonic risk in advertising theme has been captured through projective technique. Images of activities involving adventure, challenge, and inner satisfaction were shown and the respondents were asked to name one non-cola brand that they associate with the shown images. In another question, they were asked directly if they recall any advertisement of Mountain Dew. Both these questions involved non-metric, ordinal data. The relationship between the two variables was determined through a non-parametric test, Chi-square test at 0.01alpha. The Pearson Chi-Square value of 19.75 at 0.001 level of significance concludes that alternate hypothesis should be accepted. Hence the hedonic

characteristic of risk is associated with brand awareness. (See Table 2)

Table 2. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.750 ^a	4	.001
Likelihood Ratio	13.261	4	.010
Linear-by-Linear Association	9.370	1	.002
N of Valid Cases	384		

a. 4 cells (44.4%) have expected count less than 5. The minimum expected count is .35.

The third alternate hypothesis is that Hedonic risk in advertising them positively affects brand attitude. This has been determined through regression analysis. The hedonic risk has two dimensions i.e. adventure, and gratification. The dimension that captures the concept of attitude towards the brand is warm and upbeat feelings. This dimension had 26 elements. The mean of these 26 elements was computed to determine a new compound parameter, named Warm & Upbeat Feelings. Although the association between adventure and warm is not very strong, 0.577, it is highly significant. The association between gratification and warm, upbeat feelings is stronger, 0.647, and significant as well.

Adventure and gratification account for 46.8% of the variation in attitude towards the brand. (See Table 3). The impact of adventure on brand attitude is 0.297 and significant. The impact of gratification on brand attitude is 0.446 and significant. (See Table 4) Hence we accept the alternate hypothesis that hedonic risk positively affects brand attitude. This can be presented as:

$$\text{Warm \& upbeat feelings} = 0.87 + .297 (\text{adventure}) + 0.446 (\text{gratification})$$

Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.686 ^a	.471	.468	.68084	.471	169.524	2	381	.000

a. Predictors: (Constant), Gratification, Adventure

Table 4. Regression Coefficients for Adventure and Gratification

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.870	.142		6.146	.000
	Adventure	.297	.048	.278	6.124	.000
	Gratification	.446	.042	.488	10.737	.000

a. Dependent Variable: Warm & Upbeat Feelings

The fourth alternate hypothesis is the Hedonic risk in advertising theme positively affects brand consumption. To test this hypothesis, regression analysis is done. The correlation between adventure and consumption is not strong. It is 0.38 yet significant. The correlation between gratification and consumption is 0.417 and significant.

The model fit is weak because it explains only 20% variation in consumption through the two independent variables of gratification and adventure. Out of the total variability of 396.259, the variability due to regression's factor is only 80.745. Since the model fit is not strong, the variation in consumption is caused by adventure and gratification to a smaller extent. (See Table 5)

Table 5. Model Summary Explaining the Fit Between Adventure, Gratification, and Consumption

Model	R	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
				R Square Change	F Change	Sig. F Change
1	.451 ^a	.204	.91001	.204	48.752	2 381 .000

a. Predictors: (Constant), Gratification, Adventure

The strength of the impact of adventure and gratification is weak yet significant at 0.01 alpha. Since t-statistic is greater than 2, we can accept the alternate hypothesis that hedonic risk in advertising themes positively affects consumption of Mountain Dew. (See Table 6). This can be represented as:

$$\text{Consumption} = 1.037 + 0.245 (\text{adventure}) + 0.295 (\text{gratification})$$

Table 6. Regression Coefficients of Adventure and Consumption

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.037	.189		5.482	.000
Adventure	.245	.065	.211	3.782	.000
Gratification	.295	.056	.296	5.316	.000

a. Dependent Variable: Consumption

The fifth hypothesis is that Hedonic risk in advertising theme affects brand awareness, attitude and consumption equally in young males and females. Since attitude and consumption are metric variables, t-test for two independent samples was run while grouping the respondents on the basis of gender. Levene’s test value for warm and upbeat feelings is 0.92 and is not significant at 0.01alpha. (See Table 7 and 8) Therefore we may conclude that the attitude towards the brand does not differ between males and females. The Levene’s test for equality of means for consumption is high and significant. The t-statistics is also greater than 2 and significant. Therefore we conclude that consumption of Mountain Dew is not the same among males and females.

Table 7. Levene’s Test of Equality of Variances in Males and Females for Brand Attitude and Consumption

		F	Sig.
Warm & Upbeat Feelings	Equal variances assumed	.920	.338
	Equal variances not assumed		
Consumption	Equal variances assumed	7.343	.007
	Equal variances not assumed		

Table 8. Independent Sample T-Tests for Equality of Means between Males and Females for Brand Attitude and Consumption

		t	df	Sig. (2-tailed)	Mean Difference
Warm & Upbeat Feelings	Equal variances assumed	2.124	382	.034	.20577
	Equal variances not assumed	2.086	305.009	.038	.20577
Consumption	Equal variances assumed	4.272	382	.000	.44310
	Equal variances not assumed	4.443	364.268	.000	.44310

To test the hypothesis whether the brand recall is different between males

and females, Chi-square test of independence for discrete data was done. Brand recall was assessed through projective techniques and ad recalls. The chi-square value is not significant. (See Table 9) Therefore we reject the alternate hypothesis and conclude that there is no difference in the brand recall of Mountain Dew through projective technique in males and females.

Table 9. Chi-square Test for Difference in Brand Recall (Projective Technique) in Males and Females

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.667 ^a	2	.717
Likelihood Ratio	.659	2	.719
Linear-by-Linear Association	.017	1	.896
N of Valid Cases	384		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.98.

The research data analyses specify that 211 males and 135 females were able to recall the ad of Mountain Dew unaided. The Chi-square value for ad recall (unaided) is also insignificant at 0.01 alpha. Therefore we cannot accept the alternate hypothesis and conclude that the ad recall is not different between males and females. (See Table10)

Table 10. Chi-square Test for Difference in Brand Recall (Unaided) in Males and Females

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.107 ^a	2	.128
Likelihood Ratio	4.129	2	.127
Linear-by-Linear Association	4.096	1	.043
N of Valid Cases	384		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.59.

Table 11. Summary of Data Analysis and Conclusions

Research Objective	Alternate Hypothesis	Analysis	Conclusion
To determine whether youth associate pleasure and happiness with risk taking activities.	H ₁ : Gratification (happiness and pleasure) is associated Adventure (risk taking)	Correlation analysis r=0.572 sig: 000	Accept H ₁
To determine whether such hedonistic characteristic of risk used in advertising theme of Mountain Dew increases its brand awareness.	H ₂ : Hedonic risk in advertising theme is associated with brand awareness.	Non-parametric Chi square test Pearson Chi-square=19.75 Sig=0.001	Accept H ₂

To determine whether such hedonistic characteristic of risk used in advertising theme of Mountain Dew affects the attitude of the customers towards it	H ₃ : Hedonic risk in advertising theme positively affects brand attitude	Regression analysis Adjusted R ² =0.468 Beta coefficients are significant	Accept H ₃
To determine whether such hedonistic characteristic of risk used in advertising theme of Mountain Dew affects its consumption	H ₄ : Hedonic risk in advertising theme positively affects brand consumption	Regression analysis Adjusted R ² =0.20 Beta coefficients are significant	Accept H ₄
To determine whether the risk related advertising of beverages affects males and females equally in terms of awareness, attitude, and consumption	<p>H_{5a}: There is difference in attitude towards brand between males and females</p> <p>H_{5b}: There is difference in consumption of mountain dew between males and females</p> <p>H_{5c}: There is difference in projected technique aided recall of mountain dew between males and females</p> <p>H_{5d}: There is difference in ad recall of mountain dew between males and females</p>	<p>t-test for two independent samples in testing the attitude [F=.920, p>0.01; t=2.124, p>0.01]</p> <p>t-test for two independent samples in testing the consumption [F=7.343, p<0.01; t=4.272, p=000]</p> <p>Chi-square test of independence for discrete data for aided recall through projective technique [Pearson Chi square=4.107, p>0.01]</p> <p>Chi-square test of independence for discrete data for aided recall through add recall [Pearson Chi square=.667, p>0.01]</p>	<p>Reject H_{5a}</p> <p>Accept H_{5b}</p> <p>Reject H_{5c}</p> <p>Reject H_{5d}</p>

DISCUSSION

The data analyses show that the findings are consistent with the literature review. This research shows that youth now associate happiness and pleasure with adventure. For them, rather than having a negative connotation, risk assumes a positive connotation. Fitzwater, Varlynskaya, and Spear (2010) have concluded that youth exhibit positive hedonic sensitivity. Allman, Mittelstaedt, Martin, and Goldenberg (2009) have concluded that people derive a positive utility out of risk and therefore willingly seek risk. Borskhy and Raschky (2009) also stated that people

are willing to take the risk for pleasant pleasure. Evans, Hunt, and Kares (2007) concluded that youth indulge in risky activities for social bonding and release themselves from stress through such activities. The connotation of risk has changed from negative to positive (Breton, 2004).

This research has found that the hedonic risk in Mountain Dew's ads increases the brand recall among youth in Pakistan. In modern capitalism, advertising is being made more innovative and products that are not by nature risky are being associated with risk. In this way, the feelings of thrill and rush that are associated with risk rub off on the advertised product as well (Bhatia, 1992). These invented qualities became the essence of the product itself (Jhally, 2014). Hence if the product is identified through these qualities, the hedonic risk appeal increases the brand recall. The findings of this research are in line with the researchers mentioned here.

According to this research, the hedonic risk in advertising theme of Mountain Dew affects the attitude of the youth towards the advertised brand. Allen, Gupta, and Monnier (2008) had also concluded that if the qualities that were invented through innovative advertising for a brand resonate with the personal values of the customer, the customer will develop a positive attitude towards the brand. The same result was given by Altan (2008). Therefore, the results of this research are supported by the earlier researches as well.

This research found out that the hedonic risk in advertising theme in Mountain Dew ads positively affects the consumption of the brand in youth in Pakistan. Nadirah, Ghazali, Bakar, and Othman, (2016) had concluded that personal values of hedonism and self-direction influence the decisions of the consumers pertaining to consuming drinks. The growing use of advertising based on hedonic risk increases the consumption of soft drinks and confectionery. (Schor & Ford, 2007). The customers consume a product in order to relate to the personality the product portrays (Bohm & Batta, 2010; Jhally, 2014). In this respect, the research findings hold true to the previous researches.

However, this research went further to determine the impact of hedonic risk on brand recall, consumption, and attitude on males and females. It was found that although gender does not make a difference in either brand recall or forming brand attitudes, yet the consumption of Mountain Dew

in males and females is not equal. This reflects the target marketing strategy of Mountain Dew. It has been targeting young street smart males (Arens, 2006).

CONCLUSION & RECOMMENDATIONS FOR FUTURE RESEARCH

The research concluded the following statements:

- Risk has a positive connotation among Pakistan's youth is a parallel finding to the works of Borsky and Raschky, (2009), Fitzwater, Varlynskaya, and Spear (2010), Breton (2004) and Evans, Hunt, and Kares (2007).
- The hedonic risk in advertising increases the brand awareness in Pakistan's youth. This conclusion is supported by Bhatia (1992); and Schor and Ford (2007).
- The hedonic risk in ads positively affects the attitude towards the brand in Pakistan. Allen, Gupta, and Monnier (2008). Allen (2008) has reached similar conclusions in the context of other countries and markets.
- Hedonic risk does not affect brand consumption. This conclusion is contrary to the research findings of Nadirah, Ghazali, Bakar, and Othman (2016); Jhally (2014); Bohm and Batta (2010); and Schor and Ford (2007).

Overall, this research study concluded that the brand awareness and attitude towards mountain dew are same between male and female respondents, but the consumption pattern of mountain dew is not the same among them. This confirms the voice behind the brand, Director of Marketing, Mountain Dew, Scott Moffitt that the average consumer of Mountain Dew is a young, street-smart male (Arens, 2006). The research concludes that the hedonic risk in advertising theme has been successful in creating brand recall and developing warm and upbeat feelings towards the brand, Mountain Dew. However, this is not translating into brand consumption. Further research may either explore why this anomaly appears. A qualitative approach will be more suited to address this issue. The research may be expanded further to study a comprehensive model of brand equity of Mountain Dew. The brand equity includes brand awareness, brand attitudes, customer behavior and resonance between the personality of the brand and the personality of the customer.

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