

Impact of Strategic Orientation on New Product Success with Mediating Role of New Product Development Knowledge Management Capabilities

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ABSTRACT

The research study was steered to examine an impact of strategic orientation with its dimensions namely market orientation (further divided in customer orientation, competitor orientation, and inter-functional coordination) on new product success with mediation of new product development knowledge management capabilities in pharmaceutical industry of Pakistan through chosen dimensions. To prove the stated literature a set of 392 potential respondents were selected out of available population to provide statistical outcomes for this research study. Non-probability sampling following convenient sampling technique was used by the researcher for data collection. Study was cross sectional and causal in nature. Descriptive statistics, correlation and regression methods were used to analyze the data. Reliability and validity tests were conducted to observe inter item consistency of items chosen for data collection to identify a relationship between variables which proved significant for this research study. Strategic orientation along with its behavioral components had shown positive outcome that was evidenced through statistical tools used for this research study. Results showed positive and significant impact of independent variables on dependent variables with mediating role of knowledge management capabilities except for customer orientation that was proved insignificant for this research study. Furthermore this research study has highlighted many insights and aspects for future researchers and managers working in pharmaceutical companies to consider behavioral components during development phase and aim to utilize beneficial information properly to seek competitive advantage for their new offerings in the market.

Keywords: Strategic Orientation, Market Orientation, Customer Orientation, Competitor Orientation, Inter-functional Coordination, Technology Orientation, New product development knowledge management capabilities, new product Success.

1. INTRODUCTION

According to marketing theory customer oriented firms are more inclined to design such strategies that actually are an image to serve the needs of consumers through providing customized products that fulfills their needs and wants. In general, marketing theory predicts that customer-oriented firms serve the needs of the consumers better, especially by providing products that fit their needs best (Griffin & Hauser, 1993). Number of studies have explained the emphasis of business strategy for development of

organizational goals and objectives through available resources which are an important direction to accomplish desired goals and objectives (Iamratanakul, 2017). Strategic orientation is to seek firm's strategic directions and it originates from one of the major component that is market orientation (Ramaswamy, Gatignon, & Reibstein, 1994). Market orientation is primarily a combination of cross-functional commitment of any organization to produce superior value for its customers through gathered information from the market (Montoya-Weiss & Calantone, 1994). This information will then transform into value creation processes and task that directs a firm to identify potential opportunities for their desired customers (Cooper & Nakanishi, 1983). Seeking this phenomenon leads to achieve two major objectives, first to accomplish organizational commitment through providing core values and second to develop required skills, marketing efforts, resources and continuous learning to implement those values (Slater & Narver, 1994).

Market orientation is mainly characterized as three behavioral components (Ruekert, 1992) that are i) customer orientation that deals with continuous understanding about the actions and demands about the target audience available in the market, ii) competitor orientation that deals with continuous information about the actions of different competitors operating in the market (Slater & Narver, 1998) and iii) inter-functional coordination that deals with the synchronization of every activity with every department through proper flow of communication within an organization to create superior value (Slater & Narver, 1994). Moreover, while working on any new product project it is must for any organization to undergo technological pupation required to fulfill those requirements that are being collected in the form of information from the external environment (Song & Perry, 1996).

Based on these behavioral origins of marketing, these explanations have put great emphasis on the concern of both customers and competitors that are external to the company (Jaworski & Kohli, 1993) and third component is evident from the literature that clearly indicates through the definitions of early researchers that integration of every activity and information gathered from external environment is important towards successful launch of new products in the market (Kahn, 2001).

Pharmaceutical industry is having large scaled innovative platforms to produce new formulas for the development of new products and drugs in the market to cure several diseases and for this purpose many of the firms are lacking such successful platforms to produce successful outcome in the market. This research study tends to address several issues through theoretical proposition from literature that any firm had to undergo proper collection of information implementing and executing three behavioral components that are customer, competitor which are external to the organization and inter-functional coordination plays an important role for the management of collected information properly executed to launch a successful formula in the market. Moreover, installation of proper technological equipment's is also important as several formulas are not favorable to work on outdated equipment's to get the desired output. This research study shall aim to investigate the likelihood of integration of customers input in innovative process using several market research tools to lower the chance of failure of new product offerings. Moreover, what information can be attained from the market that can be distinctive in a way of producing innovative offering through chosen constructs

in strategic development shall manage to engage users or customer participation in development process.

To grasp relevant knowledge from the external environment strategic orientation as discussed in the literature is a major tool that helps any organization to collect updated information and implement and execute properly in every department for optimal outcome. Dul (2014) had in his future directions asked the future researchers to adapt strategic orientation and observe its outcomes on new product success. Furthermore, Ho (2016) had extended the future direction to further explore this construct at dimensional level and discuss the trend observed through chosen dimensions on new product success with mediation of new product development knowledge management capabilities. Organizational learning perceptions also indicates a notion towards acquiring and implementing NPD knowledge that is gathered from external environment about their customers and competitors allow the NPD teams to implement that knowledge properly through integrated coordination among every team to enhance and contribute for future innovations which can help sustain competitive advantage over time (Leonard, 1995).

This research study is important for two main reasons. First from research point of view, future research shall benefit from the output of the current study. They may further enhance the probable knowledge areas. Second from managerial point of view, as the research study was conducted on pharmaceutical industry of Pakistan shall contribute an important dilemma for those managers that are not actually meeting the standards of markets and are failed to produce successful products are encouraged to study chosen components of strategic orientation and endorse such factors that are actually contributing towards creating superior value in available resources for that organization.

2. LITERATURE REVIEW

2.1 Strategic Orientation with New Product Success

New product success is defined as a percentage of sales by the firm in previous year through improved or new addition in product line that were launched by the firm in last three calendar years under review. It normally comprises of two major components that are percentage of sales from last products that are new to the market and percentage of sales from products that are new to the firm (Dul & Ceylan, 2014).

Success of any new product offering is relying on how well an organization is capable to acquire information from the external environment and how well the intelligence program of any firm are working to acquire information about their competitors is considered to be a worthy component during NPD design stage. Distributing such kind of information among every concerned department might encourage NPD teams to endorse features that were collected from customers through feedback and market surveys and launch successful offerings with increased rate of acceptability (Siohong, 2016). Research has revealed that those companies who are actively sharing external information and knowledge will ultimately increase internal coordination among different departments that increases the ratio of success for the launch of new product in the market (Lau, 2011).

Strategic orientation is defined as the strategic directions planned, acquired, organized and implemented in a way that organizational goals achieved in an effective way. They are implemented by the firm in a way that ensure proper measures for continuous performance for the tasks used to launch new product offerings in the market (Gatignon & Xuereb, 1997).

According to Sriram (1996) strategic orientation for any firm is a mean or path that directs a firm to adapt various transformations that are necessary for them to produce distinctive offerings as per the favorable environment (Xuereb, 1993). Strategic orientation is considered to be a prime consideration for not only profitability (Moorman, 1995) but overall survival of the firm is based on this implementation about how well an organization is able to adapt information about their customers and competitors and plan things according to the availability of their resources (Chin-Chun & Zailani, 2016).

Most of the firms are now days are focusing on knowledge acquired to stay updated about current happenings from the market and are trying to enable themselves to mold their tasks according to continuously changing environments (Baba & Tschang, 2001). They grasp proper knowledge and then transform their activities according to the information they have from the environment to produce customized offerings in the market (Lichtenthaler, 2016).

Strategic orientation basically put emphasis on individual drivers that helps a firm to identify hidden or unsaid needs and wants of desired target audience (Ernst & Omland, 2011) and current market situations through basic components that includes market orientation and technology orientation allowing any firm to mold their activities as per the demands of the market and those who fails to implement these components shall face a loss in the form of low acceptability of their products and lower profit margins (Ho & Plewa, 2015). Gatignon and Xuereb (1997) examined and identified a relationship between strategic orientation and innovative outcomes and proposed two important dimensions that are market orientation and technology orientation that serves as a prime importance for any firm to work upon and shape the internal environment according to the gathered information through knowledge management activities and design their products according to the needs and wants of the targeted customers to sustain distinctive position with successful launch in the market (Im, Vorhies, & Heiman, 2016).

2.1.1 Market orientation

Market orientation as a dimension of strategic orientation focused on continuous improvement of tasks and activities for superior performance for their desired target audience (Barney, 1991) with participation of every employee working to achieve mutual stated goals through two major approaches that are programmatic approach and market back approach (Narver, Slater, & Tietje, 1998). First deals with nature of organizations that engage their employees in certain training activities and allow them to take certain initiatives for the betterment of their market reputation through proper utilization of available resources and information they gathered from the market to produce optimal products (Hunt, 1997).

Second approach acts opposite as they believe in learning that they earn from the market through different market efforts to provide solutions for the encountered problems and create values for their customers as per their customized demands and requirements from the market in which they are operating (Matsuno & Mentzer, 2015). This process rather from which side required a cross functional commitment of different teams that ultimately transforms necessary skills into different processes which lead them to successfully achieving objectives for providing core values for their customers (Deshpande & Farley, 2004).

Market orientation, as discussed in the literature, (Narver & Slater, 1990) consists of three behavioral components that are customer orientation which is proper understanding of both current and potential customers available in the market (Nath, Nachiappan, & Ramanathan, 2010), competitors orientation which is in depth knowledge about both direct and indirect competitors available in the market and continuous understanding of their actions and inter-functional coordination which is integrated set of actions of every employee and cross functional teams to act on available knowledge through proper flow of communication (Srivastava, Fahey, & Christensen, 2001).

For the ultimate success of new product is actually a depiction of proper understanding of the market that adds value in the performance and those firms who actually fails to implement on these factors (Wang, Dou, Zhu, & Zhou, 2015) shall face problems like unsupportive environment, social difference, reserve force, and most often they are unable to understand exact requirements from the market that in reality leads them to face problems (Woodside, Sullivan, & III, 1999). Another major factor is increase in globalization that initiates an expansion of many business across the globes that actually has turn on the ways for competition (Kaplinsky, Morris, & Readman, 2002) and in such competitive environment where companies tends to face social differences and cultural diversities (Nakata & Sivakumar, 1996) they must focus on above mentioned three behavioral components to overcome this transformation through advanced technological advancements and integrated set ups to share proper flow of information to meet the continuous change in demands from both current and potential customers either domestically or globally (Griffith, Lee, & Calantone, 2014).

Several factors are considered to be an important source towards successful product offerings (Li & Atuahene-Gima, 2001) in the market include collecting relevant information about current situations and customers, grasp that knowledge accurately (Luo, 2002), organize the data according to available resources (Paladino, 2007), implement the knowledge in designing and producing of product and evaluate the performance at every stage through market feedback that activities performed within an organization are going as per the demands of the market (Sosa, Gargiulo, & Rowles, 2015).

2.1.1.1. Customer orientation

One of the firm's key benefits is to consider the major demands and requirements they seek from their customers (Narver, Slater, & MacLachlan, 2004) so customers are lively involved in the advancements processes governed by the firm towards new product development (Salomo, Steinhoff, & Trommsdorff, 2003), with such positive attitude towards modernization where activities usually executed by the firm following the

image of their customers is the major source to launch successful products in the market (Mahr, Lievens, & Blazevic, 2013).

Furthermore, in the light of above developed argument, current literature enhance the body of knowledge towards the strong bonding between radical abilities of an organization (Neale & Corkindale, 1998) and involvement they seek from their customers through gathered information that actually motivates the performance of an organization (Callahan & Lasry, 2004). Illustrating the bench mark for which any organization can attain excellence is the source that involves the participation of their desired target audience that actually enhance the abilities of any firm to create superior value for their customers through successful offerings launched in the market (Bartl & Ernst, 2012).

Success of any new product is based on how the customers shall perceive the new offering and how well the product shall managed to meet their expectations (Gruner & Homburg, 2000). Mainly the major emphasis is based on how the quality of new product is accepted by the target audience and functionality to differentiate it from competing products shall attract the attention of both current and potential customers to purchase that product (Brockhoff, 2003). New product development mangers normally differentiate between both short term and long term products by fluctuating the features as per the responses they receive from the market and emphasis directed from marketing communicated tools serves as potential for organization to customize their offerings (Dechadilok & Suksawang, 2017) thus enhancing the chances for NPS both at initial and maturity stage that helps an organization to stay distinctive and enjoy competitive edge through superior quality and unique features (Castillo & Alema, 2009).

2.1.1.2. Competitor Orientation

Competitor orientation in the life of any firm plays a very vital role as it allows a firm to interact and look upon the actions of their competitors and shape their activities according to their offerings in the market (Beneke, Blampied, & soriano, 2016). This component has got much importance from both marketing and strategic point of view as it helps an organization to collect knowledge regarding activities of the competitors, their operations and assessment of their products thorough market acceptability shall enable a firm to redesign and re think on existing strategies and mold them to tackle the actions of their competitors (Kim, Shin, & Min, 2016). Competitor orientation is defined as the set of actions taken by the firm to collect information regarding the activities of their competitors and react accordingly to respond to the actions and tackle in a way to preserve the market share and positive image in the minds of customers (Shoham, 2013).

This actions is sometimes known as market intelligence and it allows a firm to keep an eye on the short term weaknesses and to identify their long term plans (Lukas & Ferrell, 2000) that enables NPD teams to react and reshape their thinking patterns through customer feedback and information to endorse such features that can tackle the new offerings of their competitors (Blessy, Patel, & Agarwal, 2014). It embraces of assured set of actions as explained in the literature about intelligence programs predominantly premeditated to guise for the actions, operations and assessment of their new offerings in the market (Gotteland, 2016).

2.1.1.3. Inter-functional Coordination

One of the most important component as evidenced in the literature is the internal understanding and integration of different cross functional teams working on mutual interest (Jassawalla & Sashittal, 1998). Information that is external to the organization and is collected properly has no importance unless it is properly communicated among different departments and is implemented properly under strategic guidelines of NPD management (Hauptman & Hirji, 1999). So strong communication within an organization is the major source to implement gathered knowledge about customers and competitors (Gresham, Hafer, & Markowski, 2006) and through proper knowledge management acquisition and implementation a firm can efficaciously manage to produce a successful product in the market (Swink & Schoenherr, 2015).

Process of new product development includes both formal and informal means of communication within an organization (Bendoly, Bharadwaj, & Bharadwaj, 2012) and across different departments to effectively perform tasks for development of certain prototypes and protocols (Kleinschmidt, Brentani, & Salomo, 2010). This efficient flow of information acts as a building block towards achieving new product innovation and this innovative platform shall equip an organization to launch successful new product in the market (Griffith, Lee, & Calantone, 2014).

One of the most encountered problems faced by any firm is the accurate flow of information across an organization that restricts managers to implement accurate source of knowledge into valuable outcome (Pinto & Pinto, 1990). Knowledge barriers are now days most rooted cause of any problem organization face regarding new product development (Roper & Vahter, 2016).

So every organization is working to apply accurate measures for proper flow of information across various cross functional teams working to launch innovative products through proper channels so that every employee shall bear equal responsibility of what is being gathered and acquired from the market about their competitors and customers. (Kou & Lee, 2015). This proper acquisition of knowledge when properly shared across an organization will develop an accurate sense about what is being produced and how to make it competitive within available sources through designing and allocating proper roles and functions for the suitable staff to achieve desired outcome during whole NPD process (Lewrick, Williams, & Lee, 2015).

Therefore, on the basis of above developed argument following hypotheses are inferred:

H1: Customer orientation positively and significantly impacts on new product success.

H2: Competitor orientation positively and significantly impacts on new product success.

H3: Inter-functional coordination positively and significantly impacts on new product success.

2.1.2 Technology orientation

Griffin (1997) defined technology as the collaborative participation of various techniques, approaches, developments and skills required for the persistence of production of different kinds of goods and services (McDonough III & Barczak, 1992).

Different sets of collaborative participation includes any set of information, certain techniques, and skills that has an ability to be transformed into valuable outcome to sustain brand equity and market share and provide opportunities to expand and explore new markets for different organizations (McDonough III, 1993).

Success of any firm is purely dependent on the type of offering they are providing by altering its technological competencies into something that has economic value and importance (McDonough & Barczak, 1991). Studies put great emphasis on the process of technological advancements through both external and internal ways to adapt and mold the strategies according to the desired situation and exert a strong relationship towards the process of NPD (Mattia & Bianchi, 2014). More precisely it focuses on maintaining a balance between the availability of resources and the type of offering the firm is planning to produce is solely dependent on the technological adaptation they seek from the external environment (Gold, 1987).

With rapid increase in globalization this balance shall help an organization to choose a suitable fit that enhance the capabilities of knowledge management teams to transform the acquired knowledge into valuable product offerings. Hence increase the chances of successful launch in the desired market (Han, Kim, & Kim, 2001). A firm having strong technological orientation can ultimately sense and respond to rapidly changing market environments as well as the changing needs and wants of their desired targeted audience. This variation will deliver rewarding intuitions for the new product development management bodies to employ an understanding and apparatuses to ripen a successful product in the market (Atuahene-Gima, Slater, & Olson, 2005).

Therefore, on the basis of above developed argumentation it was hypothesized that

H4: Technology orientation positively and significantly impacts on new product success.

2.2 Mediating Role of New Product Development Knowledge Management Capabilities

Knowledge management is one of the most debatable topics in the management literature where research had shown significant importance for the companies to imply what they are familiar about and extent to which they have knowhow about certain situations about the market. Most of the time companies are keen to familiarize their offerings with expectations of the market and they tend to go beyond their capabilities and strengths to provide valuable output. Therefore, knowledge management is one of the key tools through which they can utilize their best efforts appropriately according to the acquired information and this helps an organization to compare their compatibilities with others and mold the behaviors to achieve competitive advantage (Cepeda-Carrion & Leal-Millan, 2016). Strategic orientation provides an input or information that needs to be properly stored and analyzed for further processing which definitely requires good management capabilities.

Organizations are able to outrange their competence among every competitor if they are able to realize the importance of knowledge management and manage to successfully adapt the required components among their departments for the gathered information must be shared with concerned employees and encourage them to perform accordingly.

This will increase their chances to launch the expected offering that meets the standards of both quality and features endorsed by the company (Castro, 2015). Organizations both domestically and globally find ways to have strong knowledge management systems and keep their sources updated with information they seek for the development of new product in that locality. This act shall enhance the productivity and open ways for new designs and features that can be endorsed to meet the needs and wants of targeted customers which as discussed above is an important aspect of market orientation to ensure the success of new product launch (Donate & Pablo, 2014).

In the light of above developed argument knowledge management organizations always look for high quality product technologies that is essential for endorsing quality features that meets the criteria of maintaining standards which is in reality is a demand from customers. So maintaining this linkage between knowledge storage and creating values for customers is an essential belief for every NPD team seeking excellence (Tzokas, Kim, & Dajani, 2015). Furthermore knowledge based view of any organization is explained by about how well an organization can enhance its innovative capabilities through exchanges between different set of information that when shared among different departments accurately will increase coordination among employees. Such exchanges are beneficial and compulsory for organization to uplift productive ideas through team work creativity which fuel the creation of new knowledge towards successful product offering (Clercq, Dimov, & Thongpapanl, 2015).

Innovation is the prime consideration for any organization to compete in high technology markets and new product development process is the life blood that gear up certain innovative responses to uplift the creativity and fulfill the needs and demands of their target audience (Wielinga, Sandberg, & Schreiber, 1997). This set of action is based on the integration of activities happening in an organization which is based on knowledge management capabilities of the firm about how well they can acquire related set of information, organize it and communicate within different departments to mold and transform certain set of strategic actions (Disterer, 2001). These phenomena hence enable a firm to design a product that fits with the demands of their target audience through “inside out” technology oriented capabilities will develop a flux in an organization to respond accordingly in a given situation. This mechanism helps a firm to maintain a balanced alignment with market conditions and changing environments through successfully develop and launch new products in the market (Kim & Slater, 2013).

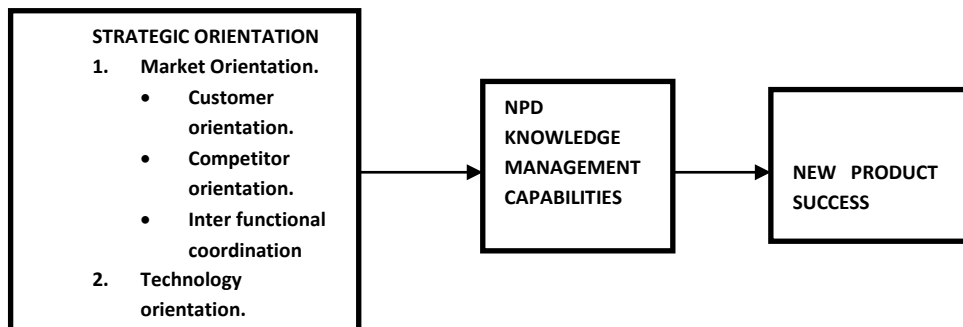
H5: NPD knowledge management capabilities mediate a relationship between customer orientation and new product success.

H6: NPD knowledge management capabilities mediate a relationship between competitor orientation and new product success.

H7: NPD knowledge management capabilities mediate a relationship between inter-functional coordination and new product success.

H8: NPD knowledge management capabilities mediate a relationship between technology orientation and new product success.

2.5. THEORATICAL FRAMEWORK



3. RESEARCH METHODOLOGY

Study was cross-sectional and causal in nature. Researcher used minimal interference during data collection. Non-probability sampling method was adopted followed by convenient sampling technique to have response from the employees working with top level officials of pharmaceutical companies of Rawalpindi and Islamabad. Research study following the stance of positivist approach had collected the primary data from 392 questionnaires which were distributed in 24 pharmaceutical companies in 445 employees in twin cities.

A survey questionnaire having five point likert scale was adapted and aforesaid questionnaire was compiled on the basis of 45 items out of which 27 items represented strategic orientation comprising of 21 items of market orientation (7 items for customer orientation, 8 items for competitor orientation and 6 items for inter-functional coordination) adapted from (Langrek et al, 2004) and 6 items adapted (Subin et al, 2016) for technology orientation to measure an impact of strategic orientation through dimensional concerns. 11 items of NPD knowledge capabilities were adapted from (Subin et al, 2016) that computed to measure mediating impact of NPD knowledge management capabilities. 7 items for new product success were also adapted (Siohong & Reilly, 2016). Survey questionnaires were made available to employees on their desks/offices and were given proper time to fill the questionnaire. They, however, were explained the purpose of research and given a general understanding about filling the questionnaire. They filled the questionnaire in the absence of researchers.

Data was then analyzed through descriptive and inferential statistics. Reliability, correlation, multiple regressions, mediated and moderated regression tests were conducted to analyze the data and results.

4. RESULTS

Cronbach's Alpha test was conducted to measure the reliability of variables. Reliability of each variable is found above 0.7 that shows a good internal consistency.

Table 4.1 Demographic Variables

Measures	Items	Frequency	Percentage
Age	18-25	70	17.9
	26-33	133	33.9
	34-41	103	26.3
	42-49	66	16.8
	50 or above	20	5.1
Gender	Male	288	73.5
	Female	104	26.5

As per frequency table, majority of respondents were having age between 26 to 41 whereas around 73.5% male participated in survey and 26.5% female also participated in the current research. The discrepancy between male and female participation in survey was due to the fact that less number of women in Pakistan do jobs and majority prefer to remain in houses instead of joining organizations.

Table 4.2 Reliability Analysis

RELIABILITY ANALYSIS		
LEVEL	ALPHA VALUE	NO. OF ITEMS
NPD Knowledge Management Capabilities (MV)	0.71	11
NPD Success (DV)	0.75	6
Customer Orientation (Dimension-IV)	0.73	7
Competitor Orientation (Dimension-IV)	0.74	8
Inter-functional Coordination (Dimension-IV)	0.79	6
Technology Orientation (Dimension-IV)	0.71	7

Table 4.3 Correlation Analysis

	C.O	Cp.O	I.F.C	T.O	NPD – KMC	NPS
C.O	1					
Cp.O	.546	1				
I.F.C	.372	.296	1			
T.O	.194	.131	.270	1		
NPD – KMC	.422	.176	.355	.399	1	
NPS	.496	.274	.449	.336	.522	1

**Correlation is significant at 0.01 level

*Correlation is significant at 0.05 level.

Customer Orientation= C.O, Competitor Orientation= Cp.O, Inter-functional Coordination= I.F.C, Technology Orientation= T.O, New product development knowledge management capabilities= NPD-KMC, New product Success= NP success.

Table 4.4 Mediation Analysis

Step 1	NPD KMC			NPS		
	B	t	R ²	B	t	R ²
CO	.02	.47		.04	.81	
Cp.O	.241*	4.90		.19*	3.3	
IFC	.244*	4.91	.22	.33*	7.05	.27
TO	.322*	6.90		.22*	4.91	
Step 2						
KMC				.52**	12.07	.27
Step 3						
KMC				.36*	8.05	
Cp.O				.12*	2.83	
IFC				.25*	5.67	.37
TO				.10	2.35	

(Step 1 I.V-D.V)

- a. Dependent Variable: New product Success
N=392, *P<0.05, **P<0.01
- b. Predictors: Customer Orientation= C.O, Competitor Orientation= Cp.O, Inter-functional coordination= I.F.C, Technology Orientation= T.O

(Step 2 I.V- M.V)

- c. Dependent Variable: New Product Development knowledge management capabilities
N=392, *P<0.05, **P<0.01
- d. Predictors: Customer Orientation= C.O, Competitor Orientation= Cp.O, Inter-functional coordination= I.F.C, Technology Orientation= T.O

Step 3 Mediation

a. Dependent Variable: New Product Success

b. predictors: New Product Development Knowledge Management

Capabilities= NPD-K.M.C

c. predictors: New Product Development Knowledge Management Capabilities= NPD-K.M.C, Competitor Orientation=Cp.O, Inter-functional coordination=I.F.C, Technology Orientation= T.O ,N=392, *P<0.05, **P<0.01

Correlation analysis was conducted to observe a relationship between each variable and results show positive and significant relationships between every variables of study and their dimensions explained in the above literature

In an attempt to prove/disprove hypothesis for direct relationship or to justify the path 1 analysis in table 4.4, following Barron and Kenny's approach, multiple regression technique was executed at dimensional level for the chosen behavioral components of strategic orientation on new product success. The F-statistic was observed to be significant at .000 clearly depicting that out of 100 times there is zero percent chance

that regression model having no predictor has given same results. β values for chosen dimensions of market orientation have shown significant level of percentage change in dependent variable except for customer orientation which was insignificant at the level of 0.417. The model with chosen predictors has predicted a variation of 27% approx. in dependent variable.

In order to validate relationship between chosen dimensions of strategic orientation and new product development knowledge management capabilities the value of F-statistic being significant at .000 indicates a model fit for this research study. Moreover the customer orientation was observed to have insignificant value for this relationship at 0.41 and t value at .47 which restricts the research to include it for further analysis. Overall percentage change in model was observed at 22% in dependent variable new product success.

Mediated regression for this research study was conducted in three steps and model fit was evidenced at .000. Customer orientation being insignificant for direct relationships was excluded for mediation analysis. In second step new product development knowledge management capabilities being treated as predictor for new product success were significant .000 with B value of .522. Third step was followed inclusive of both chosen predictors and mediating variable incorporating a decrease in the values of predicting variables that is an indication that mediation for this research study does exist. Furthermore as no value for predicting variables (CP.O and IFC) stands insignificant which show a partial mediating relationship for the proposed model whereas the value of TO became insignificant showing full mediation.

5.1 DISCUSSION

The outcome for this research study depicts the importance of strategic orientation through its potential behavioral components towards development of new product success in any market scenarios that not only equips an organization to have updated knowledge but they allow managing their strategic plans as per their available resources. Gap for this research study was successfully justified through proper incorporation of dimensions for market orientation and strategic orientation as a whole (Ho, 2016) is an important factor for making a newly launched product successful in the market.

Objectives for this research study were successfully justified through statistical analysis that provides significant outcome except for customer orientation that was observed insignificant for this research study. Overall every dimension of strategic success factors were successfully observed to have significant impact through proposed dimensions and behavioral components of market orientation as proposed by Narver and Slater (1998) demonstrated in Kahn (2001) and evidenced by Subin et al. (2016) towards new product success.

Problem for this research study was successfully addressed through proposed framework that provides valuable outcome for the chosen industry. This research is significantly based on the impact that any organization that intends to have innovative platforms must be able to acquire updated knowledge about current happenings and design their products according to the needs and wants of the environment (Siohong & Reilly, 2016). Moreover, insignificant behavior of customer orientation explains the

notion for the fact that direct customers for this industry are always those doctors that actually prescribe and refer the medicine towards end consumers so there can be many other factors involved that contribute for this relationship

In addition to above developed argument this research study confirms the importance of knowledge management as an important indicator for new product success. Any organization that is working to have product development must have strong knowledge acquisition and implementation departments that according to this research positively and significantly utilize the available information during development phase (Griffith, Lee & Calantone, 2014).

The research had contributed new insights and insignificant behavior of customer orientation is important to consider as many pharmaceutical companies consider the doctors as their direct customers and they focus on their willingness for prescription and approval for any new medicine towards end consumer and this may include some other favorable and mutual factors that safely conclude the uncertain behavior of this dimension under specific conditions which was evidenced in Xatignon and Xuereb(1997) for having positive association towards new product success but insignificant impact towards chosen constructs

Such integrating contrivance will help the researcher and other managers to have synchronized set of activities within an organization and involves every line of management to participate and act on the information gathered through knowledge management acquisition and organize it accordingly with available resources. This factor as evidenced from the research study that inter-functional coordination was observed to have highest association towards new product success and stands significant for both relationships which is an evidence for every organization to have integrated set of cross functional activities to achieve stated goals and objectives. Results of this research study have proved this construct as a learning process that is solely concerned with acquisition of knowledge from external environment and implement accordingly for the successful launch of new offerings (Kothari, 2004)

Mediation was observed which depicts that every construct was having some significant impact and is contributing towards success of new product launch so an pharmaceutical company which is involved in this process must consider learning as its prime consideration with inclusion of chosen constructs specially integration among different departments during development process shall help it to achieve its desired goals and objectives

5.2 MANAGERIAL IMPLICATIONS

This research study had provided significant and valuable outcomes that assist the managers of pharmaceutical companies to redesign their strategies and consider these dimensions to have successful outcomes for their launched products. This era is now providing fierce competition and saturation for every second organization operating in the market, so success is only based on innovation that companies are endorsing in their products. Therefore learning is very important for organizations to seek updated knowledge about current happenings in their environment and techniques to incur such information through proper integration of different departments shall increase the chances of success.

As the research was conducted at dimensional level so a very detailed outcome was observed for every direction that is equally important for any company to operate in the market. It has provided valuable outcomes regarding customers that are the key potentials for every organization, their competitors that works to compete and outrage the activities of host, inter-functional coordination that was observed to be the most important factor because any information that even if it was accurate enough but was unable to be conveyed as it was received will be harmful for the organization because of lack of coordination. So the research study has provided flexible insights to adopt technological ways and transform them into valuable outcomes through proper incorporation of knowledge management in the organization

So every organization must develop strong information networks that acquire proper and accurate information from the external environment about their competitors and customers. This information will be than properly organized by the employees from different lines of management through proper coordination and synchronization of every NPD task must be aligned with available resources. This set of actions shall lead an organization to stand distinctive by designing and launching customized products that meet the expectations of their desired target audience through standardized quality initiatives incorporated in different medicines achieved from latest labs and instrumentations are the only source to have successful launch and sustainable market share both globally and domestically.

5.3 FUTURE DIRECTIONS & LIMITATIONS

This research study has many limitations. Firstly it only focused on pharmaceutical companies of twin cities of Pakistanso future researches can include other diversified cities and countries for better results. Secondly it was only focused on one industry so other research should include more industries for diversified outcomes. Thirdly, other factors like development process factors and market environment factors could be used as mediator with this frame work for valuable outcome (Dul, 2014). This research only focused on quantitative analytical techniques, future research may use both techniques with mixed methodology for better results.

5.4 CONCLUSION

The research study in the light of cited literature and observed statistical outcomes proved significantly the importance of strategic orientation its chosen dimensions and further extended behavioral components of market orientation exerts a positive and significant impact on success of new product offerings. Knowledge management acquisition and application capabilities by any organization contribute a lot towards development of successful products for any organization. Therefore, the relationship between strategic orientation and new product success becomes stronger in the presence of NPD-K.M.C.

The significant impact of chosen dimensions and behavioral components of market orientation depicts the importance of knowledge gathering and its internal accurate flow is the key indicator towards successful launch. But on the other hand installation of latest technological tools and equipment's are also necessity because any firm unless

and until is able to transform this raw information into valuable outcome will not enjoy competitive edge in the market. Customer orientation despite every dimension is proved insignificant and has open ways for interesting thought provoking avenues because of direct relationship of doctors and pharmaceutical companies involves other factors to introduce and recommend the newly launched medicine in the market. Research hypothesis were validated suggesting the accomplishment of research objectives designed initially for this research study.

Research study can be safely concluded depicting an importance for both researchers and managers to consider those aforementioned constructs and their dimensions for implementation of innovative ideas that are considered necessary during new product development. Pharmaceutical industry is grounded of incessant revolution where every step is taken after careful examination of both external and internal domains of environment so in this competitive situation a firm must undergo knowledge management capabilities for gathering accurate information and uniform every department to act accordingly for successful launch of innovative products in the market.

APPENDIX

List of companies included for data collection legally registered at drug regulatory authority act 2012.

Category A:Category C:

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Global 2. Hilton 3. Getz 4. Sami 5. Novartis 6. GSK(consumer group) 7. Abbott Nutrition 8. Pfizer Pharm | <ol style="list-style-type: none"> 1. Platinum (general and dentistry) 2. Keizen pharm dentistry 3. Hilux Pharm 4. Charmatec 5. AGP pharm (Ali gohar) |
|---|--|

Category B:Category D:

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Zafa 2. Caraway 3. SanofiAventus 4. Merc 5. Wilson pharm 6. Spottman pharm 7. Tebruc Pharm 8. Rimingcon 9. Pharmeco | <ol style="list-style-type: none"> 1. NabiQasim Pharm 2. Cenix Pharm |
|--|--|

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