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Resolute Paramount Constituents of New Product Development and Ascendancy on Food Manufacturing Companies: A Study on Bangladeshi Food Industry

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Abstract- New product development (NPD) is indispensable for marvelous corporate performance. Recent studies found that the overall rate of success for newly commercialized products has remained stable at less than 60 %, indicating that substantial resources continue to be devoted to new product development efforts that fail in the marketplace. This study has designed to investigate the influence of strategic orientation, marketing strategy, and market research activities on new product development among food product manufacturing companies in Bangladesh. The data was collected from the marketing managers, operation managers and from those who have been involving greatly in the new product development process. A total of 113 useable questionnaires were completed. The results illustrate that strategic orientation, marketing strategy and market research activities are directly influence new product development process in the food industry of Bangladesh.

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I. INTRODUCTION

New product development is the locus of the innovative potential of organizations. It's also an inter-linked sequence of information processing tasks where knowledge of customer needs is converted into final product design (Meybodi & Mohammad, 2003). It is one of the majestic but onerous activities in business (Clark, et al., 1995). Every organization, regardless of size, profit motive, or industry experiences regular pressures to renew, expand, or modify its product or service offerings (Leenders, et al., 2003). The rate of market and technological changes has accelerated in the past decade. Central to competitive success in the present highly turbulent environment is the firm's capability to develop new products (Gonzalez, et al., 2002). New products are increasingly cited as the key to corporate success in the market. Business managers and marketing academics alike agree that an essential element of an organization's long-term survival is in new product development (Henry, et al., 1989). Besides that, it is widely known that strategic orientation

is important as one of determinant to evolve company performance. There are several studies concentrated on the factors determining the success and failure of a new product as well as market orientation on company performance (Cooper, 1979); (Song, et al., 2000); (Kwaku, et al., 1998); (Zirger & Maidique, 1990). In addition, (Kwaku, et al., 1998) research on strategic orientation and business performance, (Ramaseshan, et al., 2002) on marketing orientation and company performance.

However, very little of study consider this factors as one of the contributing parts in improving new product development process. Involvement of marketing strategy in new product development process in developing countries remain unclear. Many of marketing activities influences on new product development process in manufacturing industry is still not been explored comprehensively especially in developing countries particularly the ways of its implications in determining new product development success. Furthermore, the use of R&D is known as one of important departments those ought to be established within organization to ensure the innovation continuity. For example, (Kohli, et al., 1990) has mentioned on the importance of market information in business decision. Thus, the role of market research activities in assisting the success of new product development process among Bangladeshi food product manufacturing companies is still need to be investigated.

Thus, this paper aims to investigate the impact of strategic orientation, marketing strategy, and market research activities on new product development among food product manufacturing companies in Bangladesh.

II. OBJECTIVE

The purposes of this research are

- The description of strategic orientation and market research activities, which constitute one of the basic success components for food product manufacturing companies.
- The determination of the marketing strategy methods that have been used from food product manufacturing industries in Bangladesh.

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- The examination of the NPD practices and their importance for manufacturing companies.

III. LITERATURE REVIEW

a) *Purposes of New Product Development*

Business firms spend large sums of money for new product development due to many important reasons. The reason for new product development is the most frequently cited by top business executives are corporate growth, diversification, and the quest for a competitive edge over rival business firms.

There is another specific reason for a firm to develop new products: exploiting new opportunities. The demand for certain product attributes can suddenly become so intense that a firm is well-advised to create and introduce new marketplace for the new products in order to exploit this new opportunity and meet the strong customer demand (Gatignon, et al., 1997). Product development is potentially very important for the purpose of the business development. Along with other forms of development such as market development, product positioning development and supply development, product development can contribute to the attainment of key business objectives. One of the most important objectives can be contributed to by organic product development, it is rarely explained how this can be made to occur (Bruce, et al., 1995).

b) *Strategic Orientation*

Strategic Orientation (SOR) is a specific method to develop strategies. It is a method based on the analysis of strengths, weaknesses, opportunities and threats (SWOT). It generates a number of realistic alternatives and provides a prioritization. While the basic marketing concept has advocated a market orientation, a recent stream of research has been successful in defining, measuring and developing a theory of market orientation. A firm's strategic orientation reflects the strategic directions implemented by a firm in order to create the proper behaviors for the continuous superior performance of the business (e.g. (Pulendran, et al., 2003); (Han, et al., 1998).

Furthermore, a firm invests its resources in the activities that reflect its strategic orientation. Three major strategic orientations can be identified from the list of factors which determine the success or failure of new products: the firm's consumer orientation and its competitive orientation often covered jointly under the label of market orientation and the firm's technological orientation. While inter functional coordination has been considered as a part of the market orientation concept, we follow the organizational behavior literature and define this construct next as an influential aspect of the organizational structure (Thompson, 1967) which is necessary for obtaining full benefit from a proper strategic orientation mix.

i. *Customer orientation*

Customer orientation is the sufficient understanding of one's target buyers to be able to create superior value for them continuously. (Deshpande, et al., 1993) defines customer orientation as "the set of beliefs that puts the customer interest first." Therefore, in terms of a firm's innovative behavior, a consumer-oriented firm can be defined as a firm with the ability and the will to identify, to analyze, to understand, and to answer user needs. However, a consumer orientation also emphasizes the identification of possible markets in the case of a technological breakthrough looking for commercial applications. Finally, a consumer orientation helps the company to learn a large part of the market's technical issues and provides an evaluation of possible segments, of the importance of the market, and of its growth rate. (Gresham, et al., 2006) argue that difference in customer orientation across business functions makes cross-functional communication less effective. Moreover, customer satisfaction is one of the prime purposes of customer orientation because if they are not happy about new product, ultimately the whole plan will be failed. When company test the product in market, in most of the cases they will get pure idea about future situation. But the best thing is to predict the upcoming market situation by customer satisfaction and identify the right choice for them (Stewart & Martinez, 2002). In terms of food industry of Bangladesh the innovation is deficient because of various cultural and economic factors.

Moreover, many new products are still launched with a health positioning, including products where less desirable nutrients (fat, sugar) have been reduced or replaced, and including products that have been developed with specific health benefits in mind, based on bioactive ingredients (functional food). Though, that in some product categories and regions this type of product launch is declining. The consumer's awareness of links between food and health has been one of the most important social progresses in the recent years. A vast scientific literature states that consumers nowadays are more interested in healthy food products to prevent diseases and maintain healthy living (Karasek & T., 1990). Consumers choose healthy products that satisfy their underlying values, such as living a long and healthy life.

ii. *Competitive orientation*

A competitive orientation can be defined as the ability and the will to identify, to analyze, and to respond to competitors' actions. This includes the identification and construction of competitive advantages in terms of quality or specific functionalities, and allows the firm to position the new product well. Such an orientation makes it possible for the firm to understand "the short term strengths and weaknesses and the long term

capabilities and strategies of both the key current and potential competitors" (Pulendran, et al., 2003). A competitor orientation is both proactive (when, for example, a firm is looking for a "highly attractive market") and reactive (when it responds to a competitor's action). In a study of innovation processes in the computer industry, (Zirger, et al., 1990) shows that a large number of new product developments start in response to a competitor's action and that product development is subject to the influence of competitors' innovation processes. Competitors do not remain passive when confronted by a competitive innovation but react in order to maintain their relative position. Most successful innovative firms select certain types of new products as a function of market competitive characteristics.

iii. *Technological orientation*

Innovative firms are strongly R&D oriented, are proactive in acquiring new technologies, and use sophisticated technologies in the development of their new products (Cooper., 1994); (Kanter, & Rosabeth, 1994) refers to technology-driven organizations. Therefore, a technology-oriented firm can be defined as a firm with the ability and the will to acquire a substantial technological background and to use it in the development of new products. This includes the activities of R&D and technological scanning. Technology orientation also means that the company is able to use its technical knowledge to build a new technical solution in order to answer and meet new needs of the users. Research and development activities are subjects to high uncertainty outcomes and factors such as leadership and championship have been identified as contributing to the success of R&D work (Langerak, et al., 2004). These factors reflect the importance given to research and development and technology in companies. Only the critical thinking about new product development not necessary is successful, a technical issue where they need human power to operate and cope with competitors also be major criteria to change the strategy.

iv. *Inter-functional coordination & Knowledge sharing*

Knowledge management is a group of clearly defined processes or methods used to search important knowledge among divergent knowledge management operations. Knowledge is a kind of flow that can be transferred between the knowledge supplier and knowledge demander. Integrating internal and external knowledge in the organization and maintaining good management will lead to a positive effect on NPD performance. (Gatignon, et al., 1997) thought that knowledge management could be regarded as knowledge integration. It can be divided into interior and exterior parts. The combination of these two could increase new product performance.

Strong internal communication is also a key issue in NPD. Cross- functional involvement in the teams

has usually been considered an important aspect of this information flow for successful outcomes. Real involvement by team members depends on their understanding of the NPD process and their own roles in it. Most researchers include at least R&D, marketing, and manufacturing as the critical functions. For example, (Moenaert, et al., 2000) concluded that success rates in NPD were related to the inter-functional transfer of information between R&D and marketing. When a manager keeps his knowledge inside of him about new product development, the goal of company may not be fulfilled. Various reasons are behind not to share knowledge within organization because it can be bad when higher executives have fear about your knowledge (Madhavan & Grover, 1998).

v. *External linkage & Top management support*

Much general research on NPD combines the internal and external dimensions of communication and information flow together. However, researchers who specifically address communication and information flow in any detail usually recognize external linkages as a distinct issue. The needs for effective integration of suppliers into NPD, but points out those benefits depend on managing the integration well. The success factor of every firm depends on internal vs. external collaboration (Henard & Szymanski, 2001). Again, without a supplier, no industry can run properly. The food industry is well known for its large variety of products, which varies in size, packaging, flavor, etc. Most of these products are sold through retailers to large numbers of consumers throughout the world. When supplier involve closely with manufacturer, the production will be easier. Supply of raw material in right time will ensure better business performance.

However, leaders must pay attention to developing the "right" corporate culture. In the words, order, rules, and regulations, along with uniformity take second place to goal achievement. The strategic focus moves away from stability, predictability, and smooth operations toward a search for value added. It is emphasized that without management commitment, improvement efforts fail. This commitment must be not only active, but also visible. The intent is to develop leadership that is open-minded, supportive, and professional (Spivey, W.A., et al., 1997).

c) *Marketing strategy*

From a strategic viewpoint, a market orientation remains incomplete if it is not understood through a market-oriented cultural activities are transformed into superior value for customers. Unfortunately, these activities have received only scant scholarly consideration. A noteworthy exception is (Narver, et al., 1990) conceptual study in which they identify NPD as one of the core capabilities that converts a market-oriented culture into superior organizational performance. Their proposition is consistent with

literature assuming that culture gives rise to specific organizational structures and processes. These structures and processes affect the nature and effectiveness of marketing activities and outcomes. (Narver, et al., 1990) also focused on NPD for three reasons. First, NPD has emerged as one of the critical strategic concerns for firms in the past decade, as is evidenced by reports of returns on new products accounting for 50 percent or more of corporate revenues. Second, prior research has indicated that NPD activities and outcomes are influenced strongly by the firm's capability to generate, to disseminate, and to use market information. The rationale is that a market-oriented culture and the associated information processing behaviors reduce many risks associated with NPD. Third, prior research reveals that market orientation is related positively to new product performance. Now the empirical support for the role of NPD in the relationship between a market orientation and organizational performance is only piecemeal. For example, (Baker & Zeid, 1982) reveal that a market-oriented culture leads to new product success, which in turn leads to superior organizational performance. Likewise, (Han, et al., 1998) shows that market orientation enhances both technical and administrative innovations, which in turn improve organizational performance.

Although both studies provide support that a market-oriented culture is transformed into superior organizational performance through NPD, they do not reveal through which NPD activities this culture is converted into superior performance. NPD activities by demonstrating that a market orientation positively influences the proficiency in launch activities. This result suggests that a market oriented culture provides a unifying focus for the proficiency in some specific NPD activities within the organization to create superior value for customers. Market strategy includes four characteristics such as product characteristic, promotional characteristics, distribution characteristics and lastly pricing characteristics.

i. *Product characteristics*

Product characteristics are product's design, product quality, service quality, number of item in product line (Depth of Product Line), number of product lines (Breadth of Product Line). New product development reflects through these things. All strategies or tasks ends with its design, quality and number of items or product lines (depth and breadth). Knowledge sharing trends, internal linkage and communication, customer satisfaction all the tasks are directly or indirectly influence product characteristic (Chung & Tsai, 2007).

ii. *Promotional characteristics*

A successful product development needs an excellent promotional strategy. Sometimes, good

products fail in market only for lack of suitable promotional strategy. It informs customers about product or sometimes create needs among them. When customers will get to know about the new product then they will take decision to try. Promotional characteristics includes advertising and promotion budget size, advertising and promoting budget setting process, media allocation, advertising and promotion content. For promotion every company should remember the budget of this sector and how to do the advertising to make the product popular (Robinson, et al., 1992).

iii. *Distributional characteristics*

New product success depends on customer's tastes or choices, buying capacity or few other factors but this will happen after the availability of product. Distribution make sure this goal. Without good distribution channel, proper motivation and different types of strategy towards introducing new product, it is quite impossible to make a position in market. Sometimes unavailability of good product is the reason of the failure which is related to weakness of distribution channel. Distribution characteristics included physical Distribution, channels of Distribution, Sales Force Management (Lu & Yang, 2004).

iv. *Pricing characteristics*

Pricing is measurement of value of certain product and its characteristics includes Price, currency, payment security, and credit terms. When target customer of newly developed product thinks price unmatched in terms of their lifestyle and income, they won't buy that product. Before setting price first company should conduct research about their target audience and make sure they are ready to buy that product in given price (Varela & Benito, n.d.).

d) *Market research activities*

For product development process, market research activities has to be taken to gather all indispensable information which is suitable (Hart & Tzokas, 1999). Market research which is determining the effectiveness of performance, (Cooper & Kleinschmidt, 2007) suggested that those who gathered greater amounts of background or infrastructure information about the markets which cover the economic background, transport infrastructure, growth trends, and government aid were tend to exhibit higher performance. For new product development, company must first collect related market information, evaluate both internal and external environment and resources and plan development strategies of new products that match business goals. Most of the new product development teams use some form of market information in the development and design process – survey results, market trends, focus group testing. It means, firms has to collect as much market information to better conceive the market needs, wants and make the better product for the customer (Han, et al., 1998). In

order to complete the product development process, proper market research activities has to be taken in order to ensure all information gathered suit with the new product produce.

However, market research usually conducts for gaining more knowledge about market, customer and competitors. Various types of observation methods and interview techniques are being used for collecting information. Before introducing new product, company should be more careful about doing the right step in right time. If company wants to introduce a product but people perceive differently, eventually the consequence can be negative (Baker & Zeid, 1982). Moreover, there divergent reasons which force to introduce new product: firstly, sometimes company is doing so well that it inspires them to initiate new product in market. Secondly, company is failing continuously in market and wants to stay by offering new product. These two factors are representing one common thing and that is profit maximization. For existence in market, company needs to do this at any cost. But product innovation in food industry is quite tough because peoples tastes and choices may change time to time (Pulendran, et al., 2003); (Han, et al., 1998).

i. Modes of market research

Customer visit builds a better market focus. Customer Visit Program (CVP) builds on existing visit program and places an emphasis on understanding the customer's need want and demand. It encourages customers to inform relevant changes and to work towards providing an outstanding customer service. CVP also provides many opportunities like, firstly it offers us an opportunity to raise the awareness of services or policy initiatives that we either offer or champion secondly, it allows us to comprehend the view of our customers on specific projects or ideas that would not deficiently be covered by a formal consultation. Furthermore, professionals in fields such as marketing and sales use competitor visits reports to better understand certain business environments. By competitor visits it's easy to know the strengths and the weaknesses of our competitor businesses. To know the market situation, it's much needed to research the whole market at first. Then the effort to find out how much competitors are paying for materials, what is their profit margins and how they sell the product. And what ought to their pricing strategy (Swink, 2003). Howsoever, by test marketing it minimizes mistakes in producing and marketing of a manufacture. And it is one of most popular and it becomes more profitable. It means to ask people about the product cover design, page layout, one-sheet, piece of selling literature, or even a sales presentation. It helps to reduce errors and make the end result more productive in generating revenues. Test marketing does not have to be an expensive focus group.

In addition, many business organization uses mail survey nowadays. It is easy to survey the customer satisfaction level with little use of manpower. It is incontrovertibly cheaper than other form. Mail surveys also enables specific segments of the population to be simply targeted. But sometimes it create problems because if a person not interested to fill up the question properly getting the expected answer will not going to be possible. Moreover, small Companies can survey by telephone asit is smooth process to understand the customer's needs and wants. It takes less time than other surveys but generally more expensive. Telephone surveys provide random and accurate outcomes because the sample is less self-selective. It is quicker method and can get results within few days. This means answers are completed more accurately than the written responses.

IV. CONCEPTUAL FRAMEWORK

The conceptual framework specifies the relationships across the building blocks in this study: strategic orientation, market strategy, market research activities and new product development. It is proposed here that a strategic orientation culture is related positively to new product development. It is also posited that the ability of market strategies in firms to evolve and fit customer needs leads to superior new product development performance. In the meantime, Superior market research activities also affects new product development.



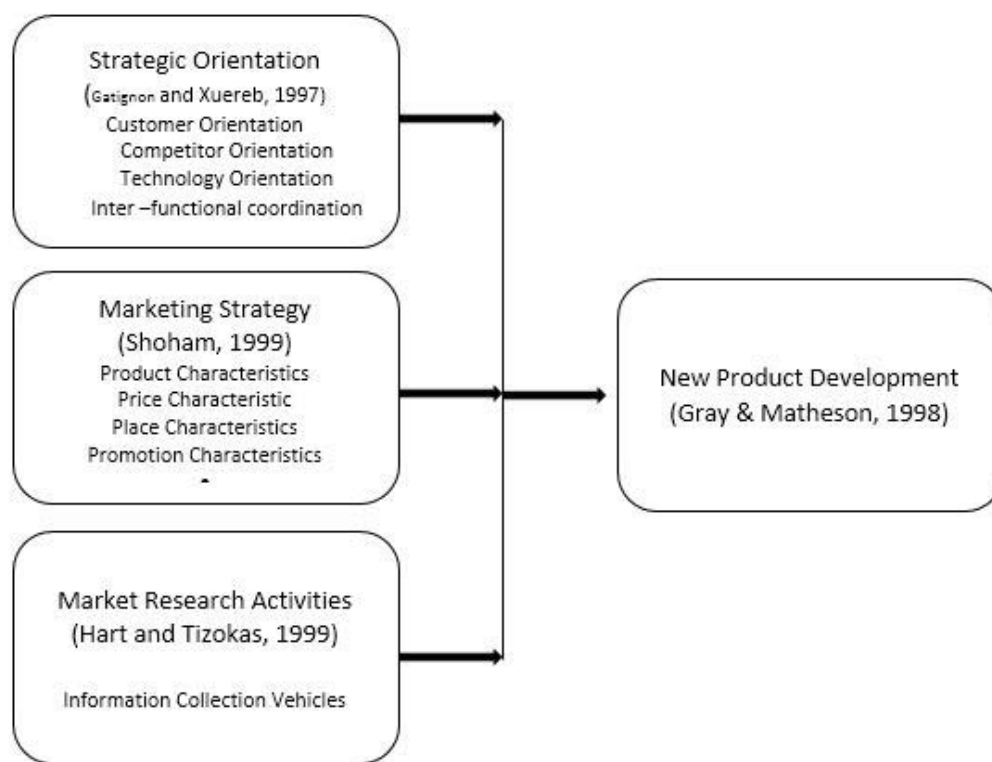


Figure 1 : Conceptual Framework

V. RESEARCH HYPOTHESIS

Question 1: Is There Any Relationship Between Strategic Orientation and New Product Development?

- H_{01} : There is no relationship between strategic orientation and new product development.
- H_{a1} : There is relationship between strategic orientation and new product development.

Question 2: Is There Any Relationship Between Marketing Strategy And New Product Development?

- H_{02} : There is no relationship between marketing strategy and new product development.
- H_{a2} : There is relationship between marketing strategy and new product development.

Question 3: Is There Any Relationship Between Market Research Activities And New Product Development?

- H_{03} : There is no relationship between market research activities and new product development.
- H_{a3} : There is relationship between market research activities and new product development.

VI. RESEARCH METHODOLOGY

The research is based on quantitative method. Hypothesis testing was used to test relationship among divergent variables. There are two types of variables to be measured and those are dependent and independent variable. The dependent variable or measured outcome in the research is new product

development (NPD). The independent, or presumed cause variables used in the study are strategic orientation (SO), marketing strategy (MS), and market research activities (MRA). All the variables were examined individually to find out whether any significant relationships exist between them or not.

a) Sampling

The data was collected from the marketing managers, operation managers and those managers who have been involving greatly in new product development. This is because they are the persons who have better experience in the new product development. This study is based on food product companies who produce either solid or liquid food products. There are more than 100 small & large food product manufacturing companies located in major urban areas of Bangladesh and among them 75 companies had been surveyed. About 130 sets of questionnaires were distributed to the companies. Out of those, only 120 sets of questionnaires were collected. However, there are merely 113 sets were usable for further analysis. The response rate was considering good which account of 86.92%. However, the survey had conducted in all the departments of several organizations.

Table 1 : Respondents of the survey

Designation	Frequency	Percentage
General manager	2	1.77%
Deputy general Manager	3	2.65%
Asst. General manager	5	4.42%
Senior Manager	15	13.27%
Manager	17	15.04%
Marketing manager	27	23.89%
Operational manager	12	10.61%
Asst. Manager	15	13.27%
supervisor	10	8.85%
coordinator	7	6.19%
Total	113	100%

The table illustrates the percentage and number of people for each position from those data had been collected for further analysis. Among the participants marketing managers were 23.89% which is the highest and lowest from general managers 1.77%. Again, the

second highest is managers 15.04% and others are senior managers 13.27%, operational manager 10.61%, asst. general manager 5.21%, supervisor 8.85% in our survey.

Table 2 : Objective of the companies
Company's present situation

Objective	Frequency	Percentage
To survive	17	22.67%
To grow in existing market	14	18.67%
To maintain position/prevent decline	11	14.67%
To expend into new market	25	33.33%
Others	8	10.66%
Total	75	100%

Most of the companies might have different main objective depends on their product, but maximum numbers of the companies want to expand into new market (33.33%). There are 18.67% of them who want to grow in existing market, 14.67% to maintain position or prevent decline, 22.6% to survive and 10.66% have other objectives.

b) Questionnaire & Measures

The instrument that has been used in this study is survey questionnaire. This questionnaire takes 20-30 minutes for each participant to complete. It was fully anonymous and only designation and main objective of their company were there. The reason is, they don't want to reveal their own perception with their name; hence this technique worked a lot during survey. There were four parts those are: strategic orientation, marketing strategy, market research activities and new product development. However, there were 47 questions in each questionnaire which has exhibited unambiguous comprehending of each variable.

Strategic orientation has measured using twelve questions. And this instrument consists of customer orientation, competitor orientation, technology orientation, inter- functional orientation (Narver, et al.,

1990) and (Gatignon, et al., 1997). The five-point likert scale ranging from 1 (not at all) to 5 (to an extreme extent) is also being used.

In addition, marketing strategy has measured by 13 items based on five-point likert scales (ranging from 1 = not use at all to 5 = use as great extend). Marketing strategies are measured based on (Noor Azlin Ismail, 2003) study which are divided into 4P's elements, which are product, promotion, distribution and price. Product characteristics elements are product design, product quality, service quality, number of product lines, and number of item in the product lines. For the promotion characteristics, it is operational using the size of advertising budget, budget setting process, media allocation and advertising and promotion contents. For the third element, which is distribution characteristics, physical distribution, type of channel of distribution, and sales force management are used to assess the extent of standardization of the distribution component. Finally, price characteristics are operational by price, currency used, payment security and credit terms.

Market research activities are measured using (Noor Azlin Ismail, 2003) by means of a five-point likert scale, (ranging from 1 = not used at all to 5 = use to a great extent.) A total number of ten information

collection vehicles are identified in the element of market research activities.

And lastly for new product development, there are twelve questions adopted from (Gray and Matheson (1998). The five point likert scale (ranging from 1= very low to 5= very high) has also been used to identify perception of respondents. Most of the scales were adapted by outside of Bangladesh. This means, the scales have been modified according to local context.

VII. DATA COLLECTION METHOD

This primary data was collected from divergent food manufacturing companies in Bangladesh. Personal interview technique and self-administrated modes had used most of the cases but other methods like telephone or e-mail survey had also used for the better view of their company regarding new product

a) Reliability

Table 3 : Reliability of divergent variables

Aspects of questionnaire	Strategic Orientation	Marketing Strategy	Market Research Activities	New product Development
Cronbach α	.786	.847	.788	.802

According to the given table, the cronbach Alpha for strategic orientation is .786 which is good, marketing strategy is .847, according to the condition table which is also good. However, market research activities is .788 which is good as well. At last new product development (NPD) is .802, as per the internal consistency table it's also good.

b) Hypothesis testing

i. Pearson Correlation

Hypothesis testing: If $P \neq 0$ and $\alpha < 0.05$, then accept alternative hypothesis (Gujarati, 2006).

H_{01} : There is no relationship between strategic orientation and new product development.

H_{a1} : There is relationship between strategic orientation and new product development.

The correlation test represents whether there is a relationship between strategic orientation and new product development if so how strong or weak is it. According to the analysis, Pearson correlation (r) is .643** and $\alpha = .000$ which is less than 0.05, representing H_a : there is significant association between strategic orientation and new product development. The correlation is positive and strong indeed (Rowntree 1981). The level of statistical significance found between strategic orientation and new product development according to the Pearson's correlation is denoted by two star which represents the level at which the correlation is significant. This means that the correlation is significant at the 0.01 level ($p < 0.01$), so the chance of being no Type 1 error is 99 percent.

development. In addition, the survey took approximately 80 days to be accomplished.

VIII. DATA ANALYSIS

Data was analyzed by using statistical package for social sciences (SPSS) version 20.0 for windows 7. First, we tried to find out the reliability of each variable in questionnaire by using Alpha model. Secondly, correlation (Pearson) analysis has utilized to determine relationship among the strategic orientation, marketing strategy, market research activity, and new product development. Finally, regression analysis was conducted to examine the relationship between the new product development and the factors of strategic orientation, marketing strategy, market research activities.

H_{02} : There is no relationship between marketing strategy and new product development.

H_{a2} : There is relationship between marketing strategy and new product development.

According to the analysis, Pearson correlation (r) is .709** and $\alpha = .000$ which is less than 0.05, representing H_a : there is significant association between marketing strategy and new product development. The correlation is positive and strong indeed. The level of statistical significance found between marketing strategy and new product development according to the Pearson's correlation is denoted by two star which represents the level at which the correlation is significant. This means that the correlation is significant at the 0.01 level ($p < 0.01$), so the chance of being no Type 1 error is 99 percent.

H_{03} : There is no relationship between market research activities and new product development.

H_{a3} : There is relationship between market research activities and new product development.

The correlation test represents whether there is a relationship between market research activities and new product development if so how strong or weak is it. According to the analysis, Pearson correlation (r) is .742** and $\alpha = .000$ which is less than 0.05, representing H_a : there is significant association between market research activities and new product development. The correlation is positive and strong. The level of statistical significance found between market research activities and new product development according to the Pearson's correlation is denoted by two

star which represents the level at which the correlation is significant. This means that the correlation is significant at the 0.01 level ($p < 0.01$), so the chance of being no Type 1 error is 99 percent.

c) Regression Analysis

Regression analysis is used to find out which independent variable individually and collectively

provide a meaningful contribution towards the explanation of the dependent variable. Reject H_0 , $P \leq 0.05$.

Table 4 : Regression model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.774 ^a	.599	.588	.26680	1.928

a. Predictors: (Constant), market research activities, strategic orientation, marketing strategy

b. Dependent Variable: new product development

Regression analysis provides the value of R and R². The R value is .774a, which represents the simple correlation. The R² value is .599 which indicates how much of the dependent variable, "New Product Development", can be explained by the independent variable, strategic orientation, marketing strategy and market research activities. In this case, 59.9% explains that there is relation between new product development and strategic marketing strategy and market research activities. However, the durbin-watson finds out whether there is any autocorrelation or not among divergent data. It takes values between 0 and 4. A value 2 means there is no autocorrelation. A value above 2 means that

the data is negatively auto correlated. In here its 1.928 which is below 2 and as per the condition it's positively auto correlated.

The results show that only strategic orientation and marketing strategy and market research activities has relationship with new product development in Bangladeshi food industry those are not statistically significant by looking at the β coefficients, strategic orientation ($\beta = 0.452$), marketing strategy ($\beta = 0.123$), and market research activities ($\beta = 0.261$), they have also proved that positive relationship exists on new product development.

Table 5 : Beta coefficient of variables

Independent Variables	Beta Coefficient
Strategic Orientation	.452
Marketing strategy	.123
Market research activities	.261
N	113
F	54.366

IX. REMARKS

The purpose of this investigation was to identify the factors which may influence new product development which could promote or impede the development business performance. The results indicated that the greater the strategic orientation, the higher is the overall new product development of the organization. As regards marketing strategy, the analysis confirmed that it was positively associated with new product development which was also concurrent with the study results of (Kohli, et al., 1990); (Baker & Zeid, 1982). However, market research activities had also positive impact on new product development as well.

X. LIMITATIONS & FUTURE RECOMMENDATION

There could be several important factors may influence on new product development such as environmental factors and suppliers which are not considered in this study. Also the sample size is relatively small and it is based one organization only that's why result may not represent the whole scenario of Bangladesh.

The Research can be doing on Environmental factors which affect directly or indirectly in production of new product. Finally, for future research, influence of market research activities and environmental factors activities on new product development need to be investigated extensively by considering the influence in new product development.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Baker, M. & Zeid, E., 1982. Successful Exporting. Helensburgh, Scotland: Westburn Publishers, Ltd.
2. Bruce, Margaret, Biemans & Wim, G., 1995. Product Development; Meeting the Challenge of the Design-Marketing Interface. Great Britain: John Wiley & Sons Ltd.
3. Chung, Y.-C. & Tsai, C.-H., 2007. The Effect of Green Design Activities on New Product Strategies and Performance: An Empirical Study among High-tech Companies. *International Journal of Management*, 24(2).
4. Cooper, R., 1994. New products: The Factors that Drive Success. *International Marketing Review*, 11(1), pp. 60-76.
5. Cooper, R., 1979. The Dimensions of Industrial New Product Success and Failure. *Journal of Marketing*, 49(2), pp. 93-103.
6. Cooper, R. & Kleinschmidt, E., 2007. "Winning businesses in product development: the critical success factors". *Research Technology Management*, 50(3), pp. 52-66.
7. Deshpande, R., J. U., F. & F. E., W. J., 1993. "Corporate Culture, Customer-orientation and Innovativeness in Japanese firms: A Quadrad Analysis,. *Journal of Marketing*, Volume 57(January), pp. 23-37.
8. Gatignon, Hubert, Xuereb & Jean-Marc, 1997. Strategic Orientation of the Firm and New Product Performance. *Journal of Marketing Research*, Volume 34(February), pp. 77-99.
9. Gatignon, Hubert, Xuereb & Jean-Marc, 1997. Strategic Orientation of the Firm and New Product Performance. *Journal of Marketing Research*, Volume 34(February), p. 77 – 99.
10. Gatignon, Hubert, Xuereb & Jean-Marc, 1997. Strategic Orientation of the Firm and New Product Performance. *Journal of Marketing Research*, Volume 34(February), pp. 77-99.
11. Gresham, G., Hafer, J. & Markowski, 2006. "Inter-functional market orientation between marketing departments and technical departments in the management of the new product development". *Process Journal of Behavioral and Applied Management*, 8(1), pp. 43-65.
12. Han, et al., 1998. Market Orientation and Organizational Performance: Is Innovation a Missing Link?. *Journal of Marketing*, Volume 62(October), pp. 30-45.
13. Hart, S. & Tzokas, 1999. The Impact of Marketing Research Activity on SME Export Performance: Evidence from UK. *Journal of Small Business Management*, 18(5), pp. 63-75.
14. Henard, D. & Szymanski, D., 2001. "Why some new products are more successful than others". *Journal of Marketing Research*, Volume 38, pp. 362-75.
15. Kanter, & Rosabeth, 1994. Collaborative Advantage. *Harvard Business Review*, 72(4), p. 96–108.
16. Karasek, R. & T., T., 1990. New York: Healthy work. Basic Books.
17. Kohli, Ajay, K., Jaworski & Bernard, J., 1990. Market Orientation: The Construct, Research Propositions, and Managerial Implications. *Journal of Marketing*, Volume 54(April), pp. 1-18.
18. Kwaku, Appiah-Adu & Satyendra, S., 1998. Customer Orientation and Performance: A Study of SMEs. *Management Decision*, 36(6), pp. 385-395.
19. Kwaku, Appiah-Adu, Satyendra & Sing, 1998. Customer Orientation and Performance: A Study of SMEs. *Management Decision*, 36(6), pp. 385-395.
20. Langerak, F., Hultink, E. J. & Robben, H. S. J., 2004. The Impact of Market Orientation, Product Advantage, and Launch Proficiency on New Product Performance and Organizational Performance. *Journal of Product Innovation Management*, Volume 21, pp. 79-94.
21. Leenders, R., Engelen, J. & Kratzer, J., 2003. "Virtuality, Communication, and New Product Team Creativity: A Social Network Perspective". *Journal of Engineering and Technology Management*, Volume 20, pp. 66-92.
22. Lu, L. & Yang, C., 2004. "The R&D and Marketing Cooperation across New Product Development Stages: An Empirical Study of Taiwan's It Industry". *Industrial Marketing Management*, Volume 33, p. 593– 605.
23. Madhavan, R. & Grover, R., 1998. "From embedded knowledge to embodied knowledge: new product development as knowledge management". *Journal of Marketing*, Volume 62, pp. 1-12.
24. Meybodi & Mohammad, Z., 2003. Strategic Manufacturing Benchmarking. *The TQM Magazine*, 17(3), pp. 249-258.
25. Moenaert, R., Caeldries, F., Lievens, A. & Wauters, E., 2000. Communication flows in international product innovation teams. *Journal of Product Innovation Management*, Volume 17, pp. 360-77.
26. Narver, J. C. & S.F., S., 1990. The effect of market orientation on business profitability. *Journal of Marketing*, Volume 57, pp. 20-35.
27. Narver, J. C., Slater & Stanley, F., 1990. The Effect of Market Orientation on Business Profitability. *Journal of Marketing*, 54(4), pp. 20-35.
28. Noor Azlin Ismail, 2003. The Influence of Firm Size, Marketing Strategy and Market Research Activities on the Export Performance of Small and Medium Sized Manufacturers in Malaysia Unpublished Master Thesis. School of Management, Selangor, Universiti Putra Malaysia.
29. Pulendran, et al., 2003. Marketing planning, market orientation and business performance. *European Journal of Marketing*, 37(3/4), p. 476 – 497.

30. Ramaseshan, B., Caruana Albert & Loo Soon Pang, 2002. The Effect of Market Orientation on New Product Performance: a Study among Singaporean Firms. *Journal of Product and Brand Management*, 11(5), pp. 399-409.
31. Robinson, W., Fornell, C. & Sullivan, M., 1992. "Are Market Pioneers Intrinsically Stronger than Later Entrants". *Strategic Management Journal*, Volume 13, p. 609-624.
32. Song, X., Xie, J. & Dyer, B., 2000. Antecedents and consequences of marketing managers. *Journal of Marketing*, Volume 64, pp. 50-66.
33. Spivey, W.A., W., Munson, J. & Wolcott, J., 1997. "Improving the New Product Development Process: Fractal Paradigm for High-Technology Products. *Journal of Product Innovation Management*, Volume 14, pp. 203-218.
34. Stewart, H. & Martinez, S., 2002. "Innovation by food companies key to growth and profitability". *Food Review*, 25 (1), pp. 28-32.
35. Swink, M., 2003. "Completing Projects On-Time: How Project Acceleration Affects New Product Development". *Journal of Engineering Technology Management*, Volume 20, pp. 319-344.
36. Varela, J. & Benito, L., n.d. "New Product Development Process in Spanish Firms: Typology, Antecedents and Technical/Marketing Activities". s.l.: Technovation, In Press.
37. Zirger, Billie JO Maididqu & Modesto, 1990. A model of new product development" an empirical test'. *management science*, 36(7), pp. 867-881.
38. Zirger, B. & Maidique, M., 1990. "A Model of New Product Development: An Empirical Test". *Management Science*, Volume 36, pp. 867-883.

APPENDIX

Reliability

Strategic orientation

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.786	.789	12

Marketing strategy

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.847	.847	13

Market research activities

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.788	.788	10

New product development

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.802	.799	12

Regression Analysis

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.774 ^a	.599	.588	.26680	1.928

a. Predictors: (Constant), market research activities, strategic orientation, marketing strategy

b. Dependent Variable: new product development

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	11.609	3	3.870	54.366	.000 ^a
Residual	7.759	109	.071		
Total	19.368	112			

a. Predictors: (Constant), marketing strategy, strategic orientation, market research activities

b. Dependent Variable: new product development

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.810	.271		2.990	.003
market research activities	.431	.095	.452	4.524	.000
strategic orientation	.130	.105	.123	1.244	.216
marketing strategy	.247	.106	.261	2.318	.022

a. Dependent Variable: new product development

Pearson Correlation

Correlations

		strategic orientation	marketing strategy	market research activities	new product development
strategic orientation	Pearson Correlation	1	.774**	.702**	.643**
	Sig. (2-tailed)		.000	.000	.000
	N	113	113	113	113
marketing strategy	Pearson Correlation	.774**	1	.780**	.709**
	Sig. (2-tailed)	.000		.000	.000
	N	113	113	113	113
market research activities	Pearson Correlation	.702**	.780**	1	.742**
	Sig. (2-tailed)	.000	.000		.000
	N	113	113	113	113
new product development	Pearson Correlation	.643**	.709**	.742**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	113	113	113	113

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