

The Interaction Model of Business Strategy with Research and Development Strategy and Effect of this interaction on Organizational Performance in Iran's Pharmacy Industry

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ABSTRACT

Today's one of the major challenges of the industry is to keep pace with global changes. These changes support the promotion of human needs and increase their expectations of life occurs. At the other view, spillovers are one of the most important elements of this change. Among these organizations are forced to use a set of strategies to achieve their goals. Coordination and interoperability between enterprise strategies could create synergy between them. In this research, we are try to identify R&D¹ strategies of most important functional strategies and PLC² strategies behind these interactions as an actor is considered with Business Strategies. The point is that the interaction should be improved organizational performance. In this study, Iran's pharmaceutical industry is selected. We are selected about 27 companies in the industry have been in this market. Performance indexes are these profit companies for the years of 2008, 2009 and 2010 have been studied. This article's method is a compilation method. Used are the survey research method and content analysis method. The results show, the Introduction stage, maximum interactions are between Emerging Strategy with low-cost product design strategy and analyst Strategy. Minimum interactions are between Benchmarking strategies with customer needs approach with low-cost defense strategy. The Growth stage, maximum interactions are between Benchmarking strategies with customer needs approach with low-cost defense strategy. Minimum interactions are between Benchmarking strategies with low-cost approach with differentiated defender strategy. The Maturity stage, maximum interactions are between Benchmarking strategies with customer needs approach with differentiated defender strategy with low-cost approach. Minimum interactions are between Benchmarking strategies with low-cost approach with differentiated defender strategy. The Death stage, maximum interactions are between Benchmarking strategies with customer needs approach with differentiated defender strategy with low-cost approach. Minimum interactions are between Benchmarking strategies with low-cost approach with differentiated defender strategy.

KEYWORDS: Business Strategies, R&D Strategies, PLC, Interaction Model, Organizational Performance, Iran's Pharmacy Industry

1. INTRODUCTION

One of the primary challenges of industries today is to coordinate with the global changes. These variations take place under the fund of human needs promotion and boosting their life expectations. On the other hand, spillovers can be referred as one of the major elements of these changes. Among them the organizations are required to exploit a number of strategies to attain their purposes. Coordination and creating a mutual interaction among organizational strategies themselves can lead to build a synergy among them. The present study has been tried to interact organizational R&D strategies which accounted for one of the most essential strategies in firms especially in high technology firms with industrial business strategies to exploit the missing links of this interaction. Of course it is worth mentioning that the strategies of a PLC play as Modulator strategies of this interaction an important role. The essential point is that the above mentioned interaction should lead to improve the organizational performance. To do so the researcher has chosen Pharmacy industry in Iran as the pilot study. In today's developing world, managers encounter with rapid and complex changes of variations in and out of organization. Permanent durability of variants and exploiting necessary strategies to improve organizational performance can be accounted as one of the most essential and basic interests of organizational management (Walker, et al. 2003). If we suppose Pharmacy industry in Iran as one of the developing industries, strategic studies should necessarily be carried out for that. However it seems that active organizations in such important and mammoth industries which are involved with more advanced technologies, run into serious challenges in harmonizing. Studies in many cases have shown that competitive disadvantages and reduction of beneficial activities in organizations do not operate inefficient in compiling strategy, because compiling strategy contains specific model and is a tangible process. It is strategies' administrative weaknesses' which create inconsistency

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and efficient interaction and begin to appear opaque points in consistent with compiled strategies in the path of organizational excellence. Dimensions and ranges of primary issue in the present study is that how do usually organizations exploit various strategies in order to improve their own performance? Therefore it seems that creating interaction and alignment between organizational strategies can be remedial in various levels. If strategy levels are classified in three: 1. Cooperative strategy 2. Business strategy 3. Functional strategy (Walker, et al. 2003) they are directed from macro scale toward functional, respectively. R&D is considered in functional strategies scale (Hunger, Wheelen, 2001) in which the present study survey about R&D strategy. It is worth expressing that in relation to Pharmacy industry in Iran, industrial and strategic gaps which direct the researcher to plan such a subject include two key factors: 1. Whereas there is a close relationship between consumed expense in development and research section of Pharmacy firms and selling revenues, it indicates the necessity of creating functional strategies consistency in these firms. 2. Pharmacy industry in Iran under the supervision of internal capabilities and technologies handle efficient markets in which active firms in the field using R&D strategy cause to waste huge amount of invest due to lack or breakdown in creating interaction among business strategies. While there are variety of model in alignment of strategies (Abedi, 2010) that in this research strategic reference points (SRP) have multi-directionally been used (Prasad, 2005). In the present research through coordinating strategic reference points, interaction among business strategies and R&D strategies will convert to resultant model.

1. REVIEW OF THE RELATED LITERATURE

1.1. Conducted Background Research in Related Field

Studying 142 case of conducted research in related subject areas in national and international scales, one can claim that 7 cases of the researches were conducted in business strategies field, 5 cases were related to R&D strategy, 6 cases displayed PLC, and 11 cases were related to functional organization. On the other hand 29 cases of researches were internationally related to business strategies, 35 cases contained R&D strategies, 21 cases related to PLC, and 31 cases were related to functional strategy. Generally, investigating available backgrounds, 36 cases of the conducted studies in the field focused on business strategies, 40 on R&D strategies, 27 on PLC, and 42 on functional organization. Nationally, the focal point of research in the field was on: 1. Functional organization, 2. Business strategies, 3. PLC, 4. R&D strategy, respectively. Internationally, the above mentioned order changed to some extent and would be as follow: 1. R&D strategy, 2. Functional organization, 3. Business strategies, 4. PLC. Generally speaking researches concentration greatly covered organizational performance and were less on the PLC. Based on historical views of these clustering's, majority of scientific studies which have been conducted inbound in Iran, were investigated from 1991 to 2011. However the studies conducted outbound Iran were classified during 1986 to 2011. Inbound Iran research focuses in the given fields areas were related to recent five years (2006 to 2011), the majority of the researches belonged to 1389. The internationally run studies indicated that the evolutionary procedures have greatly been increased in these researches from 1995s, and approximately every year researches in business strategy and R&D strategy have been occurred after the year 2000. During 2009 this case has been attained to its maximum extent. It is observable in these investigations that business strategy and R&D strategy assigned to themselves well over 50% amount of researches understudied. It is also important to note that nearly 80% of the research volume depended on recent 10 years (from 2001 to 2011). It could also be mentioned that nearly 43% of the researches in the given disciplines belonged to years following 2005. Some of the mentioned studies include: Porter (1985) claimed that competitive advantage of economic firms in building business strategies and identifying that how to exploit these strategies depended upon situation. Focuses on business strategies and how to make use of the strategies in organization would be a serious challenge and needed modeling (Walker & Ruekert, 1987). On the other hand, the role of culture and future needs of customers supposes efficient in compiling business strategies (Prahalad & Hamel, 1990). The in front challenges of organizations in compiling and conducting business strategies emphasized on environmental factors (Balkin & Gomes, 1990). The concept of strategy process in different scales and the applicable concepts of business strategies shed lights on the importance of conceptualizing strategies (Mintzberg, 1991). A relational and aggressive strategy in auto industry business is the most essential strategies of market presence (Rolfe, 1992). The effects of environmental factors and variants can menace or boost business policies, and cause situational applications (Anderson, 1992). The industries of developing countries differ regarding to business strategies and necessarily comprehensive model could be considered for all industries (Mlot, 1992). On the other hand market strategic management differs from strategic applications of various industrial businesses (A'aker, 1995). Through referent strategic points of business strategies one could concentrate on societal dimensions of social attitudes (Figenbaum & Bamberger, 1996). clustering all Porters' strategies indicates that he analyze business with respect to inner - organization processes (Kumer, 1998). The developmental paradigm of competitive strategies in marketing based on strategic referent points are stated as innovative paradigm in compiling model of marketing strategies (Figenbaum, 1996). Business strategies are in line with competitive strategies of commercial entities in addition to response to market situation (Thorp, 1999). Market orientation is analyzed based on organizational culture with improvement of organizational performance in business strategies (Slater & Olson, 2000). The role of state policies in compiling developed industries' business strategies are undeniable (Zajac, et al. 2000). Compiling business strategies emphasizes on planning, execution and business strategy control regarding to environmental factors and are in line with social responsibilities in that industry (Hunger & Wheelen, 2001). Competing with competitors can greatly specify the route and type of business strategy (Johnson, 2002). Looking at strategy for making decision, one may model business strategy (Morris, 2002). Why organizations need strategy in performance and

business levels have been investigated and approved by working on 140 small and medium size firms (Benner & Thushman, 2003). On the other hand the reason of environmental conflicts have been evaluated in development and implementation of business strategy in Europe electronic industry among which it has been attempted to analyze the conflict scaffolds created by competitors (Langerak, 2004). In order to empower human in business strategy implementation a comprehensive model has also been compiled (Morris, 2005). The approach of digital cooperates technological development in business level indicates the importance of business strategies (Bredin, 2006). The challenges of financial strategies in East Europe food products with respect to business strategy demonstrate the importance of strategy evaluation in business and performance levels (Haour, 2006). In addition, European marketing strategy research institute has completed a research which demonstrates knowledge management in order to business strategy implementation process experience a logical trend, and organizational structures should be designed in the process in such a way that transit human knowledge (Allio, 2007). Organizational strategies search and its relevance to cooperate business strategy pictures the importance of their relations (Jackson, 2008). Research indicated that main factors in establishment of business strategies consisted of organizational structures, environmental, human, technologic and financial factors, and if these factors put their acts together they would constrain their effects more (Hinterhuber, 2008). The changes in organizational structures in order to compiling business strategies make industries to face serious challenges (Harris & Rae, 2009). However three approaches to comprehend the interaction among market, technology of Academic disciplines, and Entrepreneurship in business strategy literature reveals that invasive strategy approach plays an important role in industries of developing countries and international markets (Pretorius & Maritz, 2011, Hakala, 2010). Approximately out of \$ 63 million which has been spent for R&D per annual in America, \$ 18 million assigned to basic researches, which is about nearly 3% of it, in other word its risk increases (Mansfield, 1986). Speculative process of research and development, say free private entities suggest research cooperative task in their own activity areas and budget in line with their own research purposes (Venkatraman et al. 1995). Additionally, the difference between private and social benefit for innovative task is known as overflowed gap. Following larger overflowed gap, the willingness toward investment in R&D will reduce (Martell, et al, 1995). Lasting for a long time among countries, the primary reason for conducting R&D in outbound markets is to adapt the products with local market conditions (Gerpott, 1995).

2.2. Theoretical Bases

In order to understand strategy concept it is necessary to investigate the most of its observational and mental attitudes. Additionally it considers the strategic attitude of matters and issues in mental and conceptual levels. Therefore strategy is mentally and conceptually stated and can never be observationally and practically expressed. The matter not only rejects all attitudes that consider strategy as a means of attaining long - term and timed purposes but also strategy contains "organization movement's total orientation toward optimum condition in mental and conceptual levels" (Earabi, 1991). Deft (2004) states that strategy encompasses plan to create mutual relations with environmental factors which usually act contradictory to supply organization purposes. Some managers suppose that purpose and strategy are synonyms. But his point of view indicates that where the organization want to go and strategy will be determinant to attain there. On the other hand Hunger (2001) pointed out that the strategy contains a comprehensive and multi directional plan.

2.2.1 Strategy Levels

Nowadays majority of organizations make use of a set of related strategies instead of single and comprehensive strategy which are planned in each different stratum of a firm. Three important strata strategies in large multi - product organizations consist of 1. Corporate strategy, 2. Business strategy, 3. Functional strategy (Wheelen & Hunger, 2001). Business strategy emphasizes on the improvement of product or service comparative situation in a firm or a business entity in an industry or a section of a market. Business strategy can be either competitive (fighting with all competitors to acquire advantage), or cooperative (cooperate with two or more competitors to achieve advantages than others) or can have both above mentioned formats together. Business strategy indicates how a firm should cooperate or competes in a particular firm (Hunger & Wheelen, 2001). Porter (1985) introduces four strategy types as follow: 1. opportunist's strategy, 2. analyst's strategy, 3. distinctive advocate strategy 4. Low - cost advocate strategy. Functional strategies are compiled in order to attain business purposes or encapsulated firms in the form of business or service entities (Rahmanseresht, 2005). Functional strategy involves attaining business purposes or work place firms to achieve purposes and strategies in business and firm strata through maximizing the productivity resources. This strategy develops and empowers a distinctive competency until the firm could be able to attain comparative advantage. Whereas a large firm runs several businesses in which each entity follows its own strategy, each business also contains a set of work situations in which each persuades its own strategy (Hunger & Wheelen, 2001). These work situations includes: production, marketing, finance, R&D, human resources, and information systems. The main purpose of each functional strategy is to conduct the same strategy efficiently and effectively. The coordination between functional and corporate strategies in order to attain its aims has great importance (Japanese productivity center 2010). Reviewing all functional strategy types we emphasize on the importance of issue. In most organizations R&D efforts to execute strategy place such an importance. This strategy type which is derived out of decisions and conducted enterprise in research and development, engineering and supportive activities, involves the previously mentioned R&D strategy. The firms which follow R&D strategy in market invest in development of consumed product. For instance, industrial clothing producers, introduce their clothing's in different experiments to determine their qualification for the use of tents and other usages. Whether a firm attempts to progress via development and its assembly line, R&D related engineers

and scientists will alter the product, until its function improves respectively and its performance increases in various markets. A lot of attention in R&D efforts should have been paid to these processes. Generally engineers and scientists work on method improvement, processing situations and designing equipments to design the firm products in the form of a character. With respect to the fact that in most computer and electronic firms R&D efforts focuses on process development, R&D strategy depends upon innovation, creativity in product and its production and quality improvement. Porter (1985) introduced two strategy types as R&D strategy in functional strategy stratum in order to compete in industry as follows: 1. Emerging in production and 2. Benchmarking. Making decision about which one to choose is an introduction to attain low-cost or distinctive strategy. Generally he believed that R&D strategy could be classified in four types: 1. Emerging strategy with new and distinctive product design approach, 2. Emerging strategy with low-cost new product design approach, 3. Benchmarking strategy to supply customer demand, 4. Benchmarking strategy to reduce product cost or valuable activity (Porter, 1985).

2.2.2. Strategic Interaction Model

In order to study strategic interaction purposefully and how to create this interaction in organizations it is necessary to investigate the model of strategic interaction. Basic and practical researches in the new and innovative discipline have been conducted including concepts, theories and model of strategic management. The stated model can be classified as follows: 1. rational model, 2. natural model, 3. comprehensive model (Earabi, 2009). Logical bases depend on formal model of theories. Philosophic and logical bases are aligned. On the other hand in order to collect management theories, we should extract the approaches of theories or theory sets to be able to deal with these collections (Earabi, 2009). Three classifications on logical bases have been done including: 1. the collection of dominated theories in four intervals conducted by W. Richard Scott (1998), 2. Four paradigms to analyze social theories conducted by Gibson Burrell and Gareth Morgan (1979), 3. Efficient model and a set of values which have been conducted by Richard H. Hall (2001) in order to find out strategic reference points in logical bases of management theories. Firstly, each above mentioned classifications will be discussed and the reference points will be used, and in each of them it will be identified and then the elite reference point will be selected from among.

Richard Scott (1998) sketches three attitudes for organizations' theoretical model which include: rational attitude, natural attitude, open system attitude. Then he integrates three attitudes together and provides a comprehensive framework to classify organization theories. Two reference points in the play include: point of view toward organization (natural / rational); and system type (open / close). Burrell and Morgan considers social – science nature related presuppositions based on mental / observational dimensions and society – nature presuppositions based on fundamental change / order dimension. They state that if we consider these two dimensions of reference together, four distinctive societal paradigms are obtained which can be used to analyze a broad spectrum of social theories – the relationships among these paradigms to which the titles of Radical humanist, radical structuralism, and interpretive are given. Richard H. Hall (2001) introducing a situational known as comprehensive efficient model emphatically pointed out that all management subjects can be defined in the form of this model. To indicate that which efficient model or model is used, he utilized two reference points as follows: 1. organization focal point and tendency toward internal and external environment and 2. Flexibility control. Making use of two above mentioned reference dimensions and studying various efficient models he pointed out four efficient models (Hall, 2001). Each of these model demonstrate emphasize and special attention to organization.

2.2.3. Research Conceptual Model

Based on understudied strategic interaction in this research the following conceptual model will be sketched:

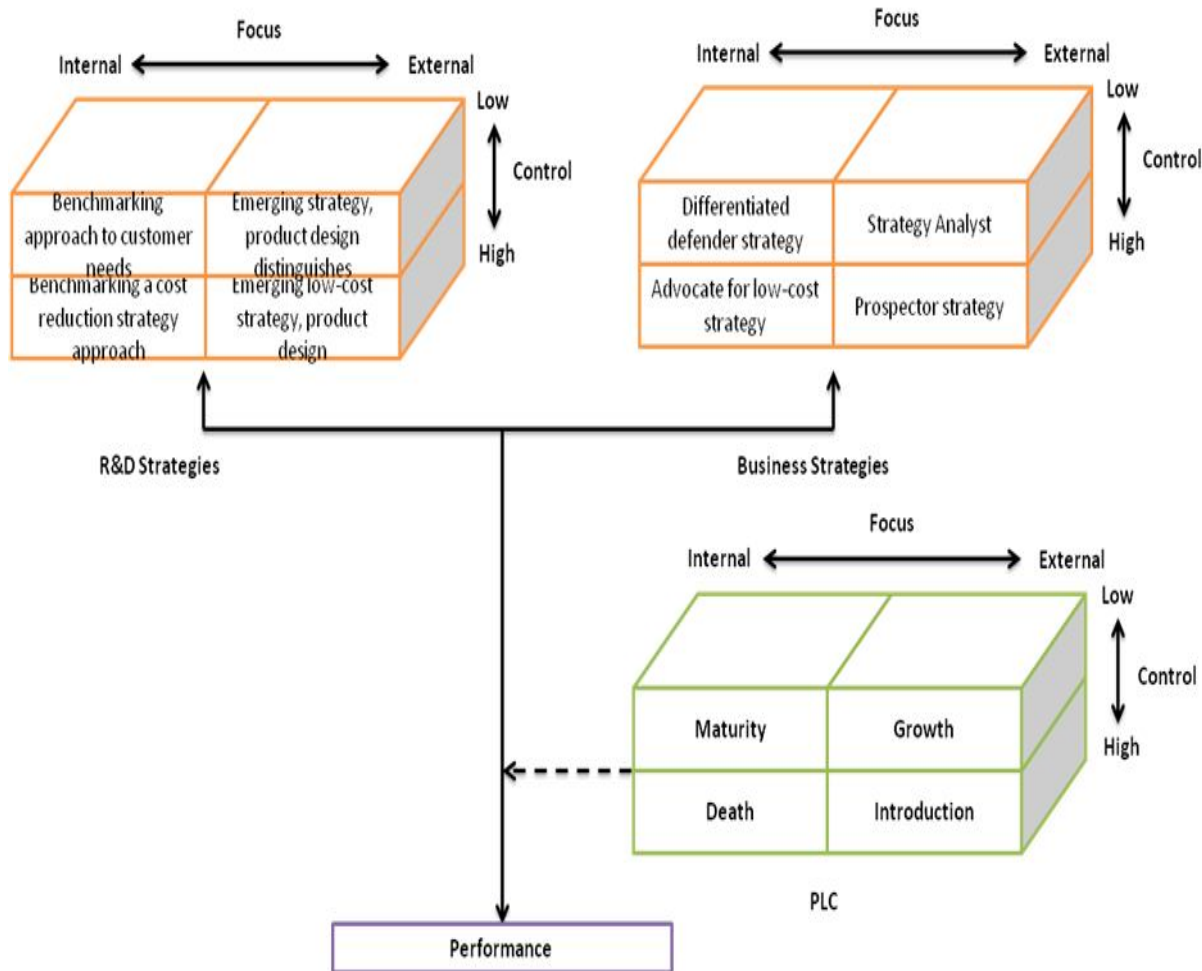


Fig 1: Conceptual Model of Research

2.2.4. Organizational Performance and Its Evaluation Criteria

Organizational performance is considered an essential strategic process. Management efficiency and quality and its performance are determinant and vital factors in attaining the programs of development and social welfare. Providing service and generating new products and supplying expenses through resources have created sufficient sensitivity to study goal attainment, consistent quality improvement, citizen customer satisfaction boosting, organization, management, staff performance. Organizational performance defines it via how efficient and effective business strategies administered which leads to synergy (Oslo, et al. 2005). Synergy occurs when two or several businesses empower and boost each other through their resources in such a way that the performance of all related businesses is superior to the forced collection of one by one performance of that business (Walker, et al. 1987). Performance evaluation is such a process which cares about measurement, evaluation, value setting, and judgment about performance through definite periods of time. Performance evaluation in organization dimension usually is synonym for activities effectiveness. Effectiveness means to attain purpose and program having properties of efficient activities and operations.

2.2.4.1. Evaluative Approaches of Organizational Performance

In this study organization performance evaluation approaches or accompanied performance criteria with their usable indices in defining corporate aims, business and service entities can be investigated and selected based on this question which:

What approach and index should be selected with respect to evaluative and available criteria of understudy organization performance in the present research?

Since organization performance contains four general approaches as follow: evaluation of organization performance based on its previous performance, evaluation of organization performance based on defined program and standard purposes, evaluation of organization performance based on competitors' performance and similar organizations, evaluation of organization performance based on integrated method, (Walker, et al. 2003) and with respect to evaluation of organization performance based on competitors' performance and similar organizations which has been selected in this study, the other above mentioned approaches will also be explained briefly. It should be also stated that selected approach create necessary synergy and considers organization competitive approach (Walker, et al., 1987). Evaluative approaches of organizational performance include: evaluation of organization performance based on

its previous performance, evaluation of organization performance based on defined program and standard purposes, evaluation of organization performance based on competitors' performance and similar organizations, evaluation of organization performance based on integrated method. Evaluative indices of organization performance can be classified on 9 evaluative criteria, however. These criteria include: profitability, innovative, competitive strength point, growth, care about customers, using resources, care about proprietors, care about staff, and care about society criteria (Walker, et al. 2003). The selected criterion in the present study is concerned with profitability regarding to organization performance evaluation. Performance evaluation indices provided based on profitability criterion here are Return on investment (ROI) and Return on Equity (ROE) (Walker, et al. 2003).

2. RESEARCH METHODOLOGY

Methodology comprises a set of guidelines, means, valid and systematic ways to study realities, discovering unknowns and attaining solutions. Special attention should be paid to the fact that the validity of research achievements was effectively credited by method which was selected by research (Khaki, 1999). The researches could be classified based on three indices: 1. Classification of research based on conclusion, 2. Research classification based on purpose, 3. Research classification based on data types (Earabi, 2009). Regarding to common strategic reference points theory, the present study provides business strategy interaction and R&Dstrategy model and make use of it in pharmacologic industry in Iran. It is an applied–developmental research. It is an explanatory Research since it sheds light on reasons and causes of improvement in organizational performance. In the present study, data determine the rate of business strategy interaction with respect to qualitative R&Dstrategies, performance evaluation data and also industry sales in stock market and their quantitative growth. It can also be indicated that data is semi – quantitative. In the present study compound strategy (survey and content analysis) has been utilized.

Step one: the use of survey strategy to analyze performance situation of pharmaceutical firms in Iran and defining the rate of business strategy interaction accompanied with R&Dstrategies providing the proportion of this interaction based on the life cycle of firms' products.

Step two: using content analysis strategy to investigate how the interaction of mentioned strategies and typology of strategies investigated in Iran pharmaceutical firms and identifying other effective variants in the given industry.

Since sample is part of society from which it is introduced, some questions are proposed to select sample population. How a sample is selected? And what units does it contain? On the other hand what sampling method should be used? How many sample populations should exist? To answer these questions it is necessary to determine the methodology first (Hafeznia, 2003). As proposed earlier quantitative research strategy used in this research is survey study. In research process, statistic sample is determined based on research nature and the properties of population in member firms. In such a case that the extracted sample could generalize the obtained results in best way to population in hypotheses testing processes while observing cost and time consumption. In this regard, researcher investigated all sample population member firms active in stock market making use of judgment sampling method and after 5 months consistent follow – ups, nearly all firms cooperate with the researcher and just financial statement of two firms encountered with some limitations to provide. Ultimately 25 firms out of 27 firms were considered sufficient for the study. Data related to research sampling have been extracted out of audited financial statements at the end of firm's time period, the report of managers board to General assembly, Tehran stock holder database and questionnaire.

3.1. Data analysis method

To collect data related to the rate of business strategy interaction and R&D strategies providing the proportion of PLC, integrated Olson and Slater's (2005) questionnaires plus researcher–made questionnaire were used in Iran pharmaceutical industry. To identify the performance of understudied firms through profitability indices, the researcher mainly analyzed the financial statements. Since the questionnaire is proposed in package, to collect data completely, interview has supplementary been utilized to be qualitatively used in the next research step. Data and performance evaluation – related information has been obtained through investigating books, the analysis of audited financial statements, available statistics in firms and stock markets. The application of financial documents analytic tools and questionnaire have been applied in the present study.

3.1.1. The Analysis of Financial Statements

The financial statements of these firms have been studied based on profitability indices regarding to return of investment (ROI) and shareholders return of assets (ROA) criteria in the following years: 2008, 2009, and 2010 to analyze the performance of these firms. Return of investment (ROI): the proportion indicates how well a firm has used its available finance during a financial year. Shareholders Return of assets (ROA): it indicates return of assets, the profit after tax reduction per each invested Rial which investors invest in the firm. It also shows capital return rate to shareholders.

Questions in questionnaire contain Likert quantitative which ranges from 1 to 5 in which 1 offers the least interaction and 5 supposes the most interaction. In order to confirm the reliability of the 64 questions offered in questionnaire which has determined the rate of four businesses, four R&Dstrategies interactions in four PLCs, Cronbach alpha coefficient was measured. Firstly, obtained Cronbach alpha coefficient in the entire questionnaire was 0.834% which demonstrates the reliability. Table 1 displays the reliability of questions which has been provided along hypotheses testing. As it was indicated in the table the questions are in line with hypotheses testing having at least 0.719 and maximum 0.989 Cronbach alpha coefficient experience required reliability.

Table1: reliability coefficient of research variables related to given hypotheses

No.	Variables	Questions No. in Questioner	Hypothesizes	Cronbach's alpha
1	Business St. 1 with R&D St. 1 in PLC	1-17-33-49	1	0.929
2	Business St. 1 with R&D St. 2 in PLC	5-21-37-53	2	0.956
3	Business St. 1 with R&D St. 3 in PLC	9-25-41-57	3	0.979
4	Business St. 1 with R&D St. 4 in PLC	13-29-45-61	4	0.918
5	Business St. 2 with R&D St. 1 in PLC	2-18-34-50	5	0.979
6	Business St. 2 with R&D St. 2 in PLC	6-22-38-54	6	0.989
7	Business St. 2 with R&D St. 3 in PLC	10-26-42-58	7	0.982
8	Business St. 2 with R&D St. 4 in PLC	14-30-46-62	8	0.936
9	Business St. 3 with R&D St. 1 in PLC	3-19-35-51	9	0.974
10	Business St. 3 with R&D St. 2 in PLC	7-23-39-55	10	0.961
11	Business St. 3 with R&D St. 3 in PLC	11-27-43-59	11	0.967
12	Business St. 3 with R&D St. 4 in PLC	15-31-47-63	12	0.781
13	Business St. 4 with R&D St. 1 in PLC	4-20-36-52	13	0.956
14	Business St. 4 with R&D St. 2 in PLC	8-24-40-56	14	0.980
15	Business St. 4 with R&D St. 3 in PLC	12-28-44-60	15	0.719
16	Business St. 4 with R&D St. 4 in PLC	16-32-48-64	16	0.951

Source: Researcher's Analyses

3.1.2. Inferential Statistics in Research

Inferential statistics is a branch of statistics which enables the researcher to judge the population based on the obtained results of sampling and propose their conclusions regarding to probability theory (Venus et al. 1996). Generally it is divided in two parts: parametric statistics and non – parametric statistics (Khaki, 2003). The primary methods of inferential statistics include: 1. Statistic estimation: point and distance estimation of mean, success proportionate, variations, and the proportion of variance in two statistic population, 2. Statistical hypothesis testing. In the present research, because of hypothesis presence the researcher has made use of Statistical hypothesis testing. Applying SPSS software and reasonable hypothesis testing, it is greatly possible to assist research results in validity. In this study Kruskal Wallistesting was used to analyze data and hypotheses. 1. The purpose of data collection is to compare three groups which operate independently. 2. Data are quantitative and ranking which has been obtained by Likret spectrum, 3. Sample population is abnormal (Jandaghi, 2011).

3. DATA ANALYSES

4.1. The evaluation of member pharmaceutical firms in Iran stock market

Rudimentary research studies pictures nearly 70 pharmaceutical firms in Iran from which only 27 firms run their consistent and active operation in stock market during last decade (the list of active and inactive firms in stock market is present in the index part). More than 90 percent of pharmaceutical firms in Iran are handled by these active and inactive firms in stock markets (stock market, 2011). Therefore in the present research 27 pharmaceutical firms were considered as the sample population which can be classified in three main groups of pharmaceutical ingredient producer, pharmaceutical product producer, and pharmaceutical product distributor regarding to the study of structure and type of activity. From among 27 given firms, Damloran firm was deleted because of livestock pharmaceutical production and contradict with structure of other firms. The performance of studied firms based on profitability index with return of investment (ROI) rate and shareholders return of assets (ROA) rate for years 1387, 1388 and 1389 have been evaluated. Average performance of three – year study has been obtained with respect to geometric mean.

Three year returns of investment (2008, 2009, and 2010) of pharmaceutical firms were studied. Eksir pharmaceutical firm, SinaDaroo laboratories, DarooPakhsh, Pars Daroo, Sobhan pharmaceutical group, AlborzDaroo, Razak laboratories, Zahravi, Daroosazi pharmacy, Asoodeh pharmacy, Farabi pharmacy, Dr. AbidiPharmacy laboratory and RoozDaroo pharmacy with 20% more than return are accounted as well performed firms. Among them Eksir pharmaceutical firm, DarooPakhsh, Sobhan pharmaceutical group and RoozDaroo pharmacy experienced increasing growth. SinaDaroo, Pars Daroo, AlborzDaroo laboratories, Razak, Daroosazi, Zahravi, Osveh, Farabi, Dr. Abidi pharmaceutical firms revealed depreciatory growth. Generally they moderately picture high performance. On the other hand DarooPakhsh ingredients production firm, Jaber – EbneHaian pharmacy, Iran injection products, Kimidaroo, Iran Daroo, Daroopakhsh factories, Amin pharmacy, AbooReihan pharmacy, SarmayegozariAlborz, Kosar pharmacy, Loghman Pharmaceutical and health, having 10 to 20 percent return are counted among rather suitable performance firms. Among them DarooPakhsh ingredients production firm, Iran injection products, AbooReihan pharmacy faced ascending trend, while Jaber – EbneHaian pharmacy, Kimidaroo, Iran Daroo, Daroopakhsh factories, Amin pharmacy, SarmayegozariAlborz, Kosar pharmacy, Loghman medical – health encountered descending trend. Totally they function moderately appropriate, however. Daroopakhsh chemotherapy firm, Tehran shimi, and Tehran Daroo pharmacy, experiencing below 10% return considered as rather descended – performance firms in which Tehran Shimi and Tehran Daroo pharmacy face with ascending trend while Daroopakhsh chemotherapy firm encountered descending trend. In sum they indicate rather descending performance.

Table2: Classifying the Performance of Understudied Pharmaceutical Firms Based on Three Year Return of Investment-ROI (2008, 2009, and 2010)

Strong performance firms	Normal performance firms	Weak performance firms
Eksir pharmaceutical firm	DarooPakhsh ingredients firm	DarooPakhsh chemotherapy firm
SinaDaroo laboratories	Jaber – EbneHaiian pharmacy	Tehran shimi
DarooPakhsh	Iran injection products	Tehran Daroo pharmacy
Pars Daroo	Kimidaroo	
Sobhan pharmaceutical group	Iran Daroo	
AlborzDaroo	DarooPakhsh factories	
Razak laboratories	Amin pharmacy	
Zahravi pharmacy	AbooReihan pharmacy	
Osveh pharmacy	SarmayegozariAlborz	
Farabi pharmacy	Kosar pharmacy	
Dr. Abidi Pharmacy laboratory	Loghman medical – health	
RoosDaroo pharmacy		

Source: Researcher Data Collection

as it is shown in figure 3, shareholders return of assets during three years (2008, 2009, and 2010) in under studied Pharmaceutical firms, Pars Daroo, AlborzDaroo laboratories, Razak, Darooosazi, Zahravilaboratories, and sina, DarooPakhsh ingredients production firm, and Osveh pharmacy having over 50 % returns are among well - performed firms. on the other hand DarooPakhsh, Dr. Abidi Pharmaceutical laboratories, Eksir pharmacy, DarooPakhsh, SarmayehgozariAlborz, Iran Injection products, Iran Daroo, AbooReihan -e- birooni, RoosDaroo pharmacy, Jaber – EbneHaiian pharmacy, Kimidaroo, Sobhan Pharmaceutical group, loghman medical – health and Amin pharmacy having returns between 30% to 50% are among rather suitable performance firms. Tehranshimi firm, Kosar pharmacy, Tehran Daroo pharmacy, and Farabi pharmacy experiencing less than 30% return are accounted as rather weak – performance firms.

Table 3: Classifying Understudied Pharmaceutical Firms Based on Shareholders Return of Assets during Three Years (2008, 2009, And 2010)

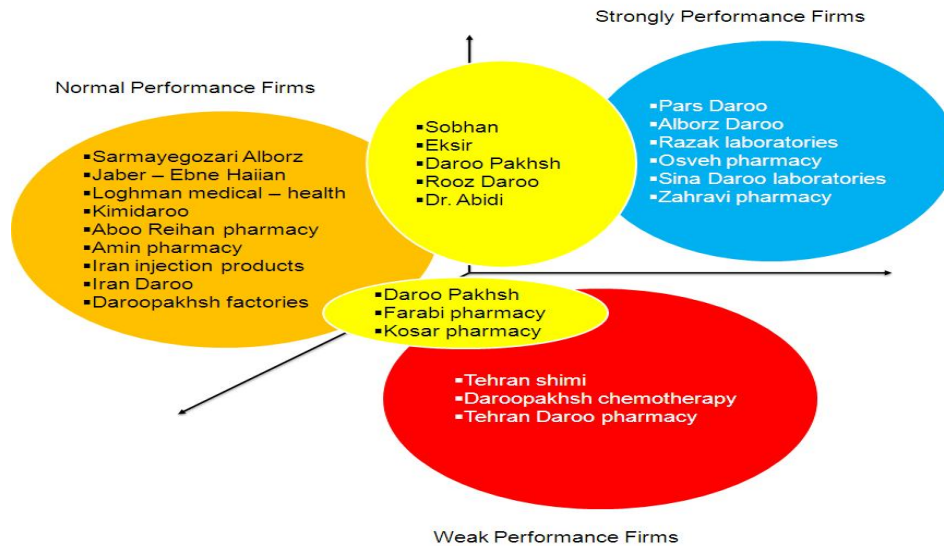
Strong performance firms	Normal performance firms	Weak performance firms
Razak laboratories	DarooPakhsh factories	Tehran shimi
AlborzDaroo	Dr. AbidiPharmacy laboratory	Kosar pharmacy
Pars Daroo	Eksir pharmaceutical firm	Tehran Daroo pharmacy
Zahravi pharmacy	DarooPakhsh	Farabi pharmacy
SinaDaroo laboratories	SarmayegozariAlborz	
DarooPakhsh ingredients firm	Iran injection products	
Osveh pharmacy	Iran Daroo	
	AbooReihan pharmacy	
	RoosDaroo pharmacy	
	Jaber – EbneHaiian pharmacy	
	Kimidaroo	
	Sobhan pharmaceutical group	
	Loghman medical – health	
	Amin pharmacy	

As it is indicated in both return of investment and shareholders return of assets criteria which is in line with evaluation of understudied firm performance based on profitability compared to competitors, it could be possible to picture an appropriate quality classification based on table 4, figure2.

Table4: Quality Classification of Pharmaceutical Firms' Performance Based on Profitability Index

No.	Firms	Profitability Performance		Total Performance
		Return of Investment	Return of Assets	
1	Pars Daroo	■■■	■■■	■■■
2	AlborzDaroo			
3	Razak laboratories			
4	Osveh pharmacy			
5	SinaDaroo laboratories			
6	Zahravi pharmacy			
7	SarmayegozariAlborz	■■	■■	■■
8	Jaber – EbneHaiian pharmacy			
9	Loghman medical – health			
10	Kimidaroo			
11	AbooReihan pharmacy			
12	Amin pharmacy			
13	Iran injection products	■■■	■■	■■■
14	Iran Daroo			
15	DarooPakhsh factories			
16	Sobhan pharmaceutical group			
17	Eksir pharmaceutical firm			
18	DarooPakhsh			
19	RoosDaroo pharmacy	■■■	■■■	■■■
20	Dr. Abidi Pharmacy laboratory			
21	DarooPakhsh			
22	Farabi pharmacy			
23	Kosar pharmacy			
24	Tehran shimi	■	■	■
25	DarooPakhsh chemotherapy			
26	Tehran Daroo pharmacy			
Guidance: Performance:		Strong ■■■ Normal to Strong ■■■	Normal ■■ Normal to Weak ■■	Weak ■ Normal to Weak ■■

Source: Researcher Data Collection

Figure 2: Quality Classification of Pharmaceutical Firms' Performance Based on Profitability Index in Directional Spectrum

Source: researcher data collection

4.2. Statistical analysis

In the present research, to accept or reject Null hypothesis (H_0) using SPSS software significance level was calculated which is specified with Sig. value. Considered significance level is displayed with α which depended on researcher. In this research α is considered 0.05. If sig. value is equal or greater than α , Null hypothesis (H_0) will be accepted, if Sig. value is less than α , H_0 will be rejected.

Making use of suitable hypothesis can greatly assist on the validity of the research results. In the present research, Kruskal Wallistest was selected to analyze data regarding to following reasons:

1. The purpose of data collection is to compare three independent groups
2. Data are ranking and quantitative which have been collected using Likert spectrums.
3. Sample population is abnormal heterogeneous. (The variables are ranking)

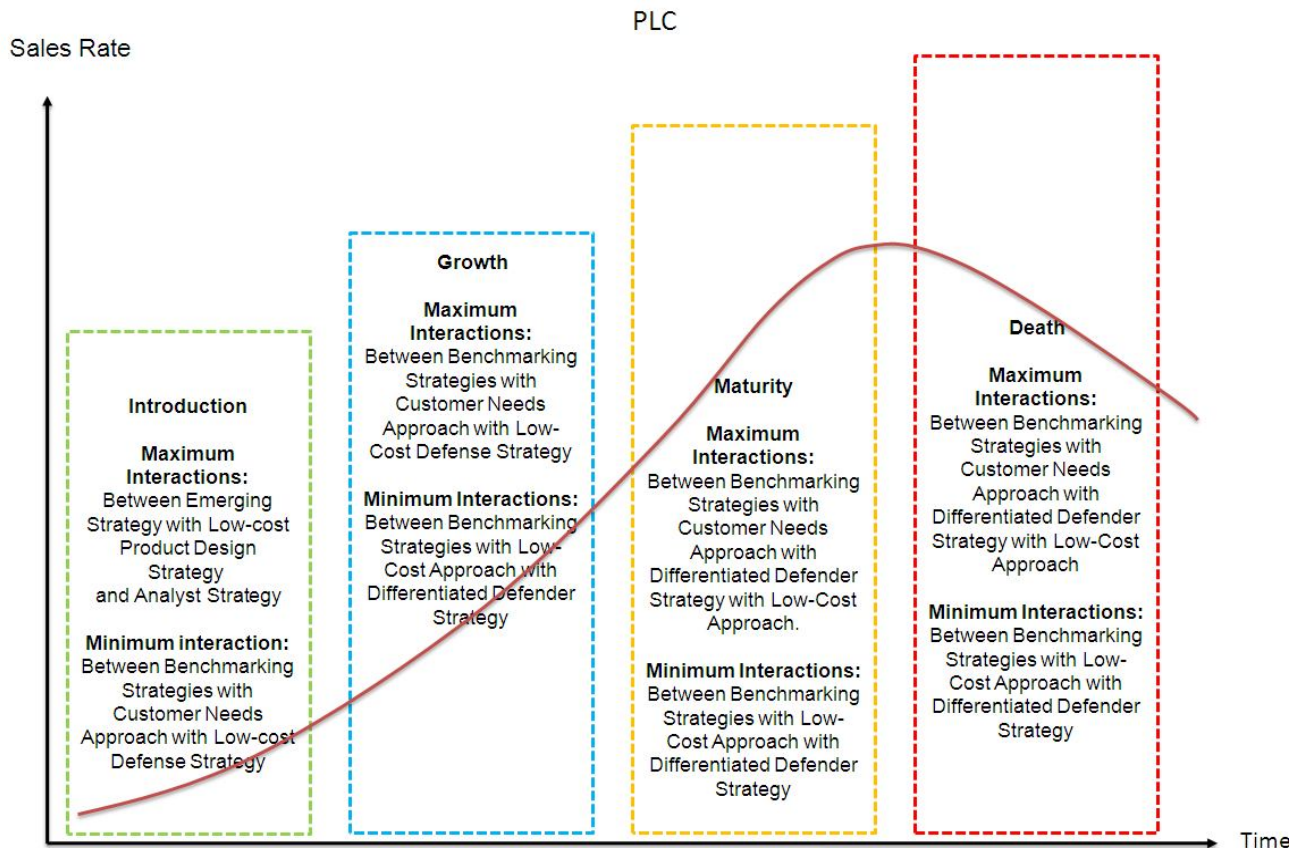
4.2.1. The Summation of Hypotheses Testing Analyses

As it can be figured out from the research hypotheses all first research hypotheses were accepted. This case is scientifically and logically valid. Not only the interactions of organizational strategies are not proposed with lack of interaction concept but also it is evaluated as more, average and less interactions. The level of this interaction is analyzed and documented with significance of hypotheses testing's, however. Therefore table 5 indicates these interaction rankings.

Table5: The Interaction of R&D Strategy Ranking with Business Strategy in Iran Pharmaceutical Industry

Significance	The Degree of Interactions between R&D Strategies and Business Strategies in PLC	the number of hypotheses
0.933	Interacting Between Emerging Strategy, Product Design Distinguishes with Analyst Strategy in PLC	6
0.886	Interacting Between Benchmarking Approach to Customer Needs Strategy with Analyst Strategy in PLC	10
0.880	Interacting Between Emerging Strategy, Product Design Distinguishes with Prospector Strategy in PLC	5
0.875	Interacting Between Emerging Strategy, Low-Cost Approach with Prospector Strategy in PLC	1
0.868	Interacting Between Benchmarking Approach to Low-Cost Strategy with Analyst Strategy in PLC	14
0.844	Interacting Between Benchmarking Approach to Customer Needs Strategy with Prospector Strategy in PLC	9
0.782	Interacting Between Benchmarking Approach to Customer Needs Strategy with Advocate for Low-Cost Strategy in PLC	12
0.780	Interacting Between Emerging Strategy, Product Design Distinguishes with Differentiated Defender Strategy in PLC	7
0.676	Interacting Between Benchmarking Approach to Low-Cost Strategy with Prospector Strategy in PLC	13
0.659	Interacting Between Emerging Strategy, Low-Cost Approach with Differentiated Defender Strategy in PLC	3
0.617	Interacting Between Benchmarking Approach to Customer Needs Strategy with Differentiated Defender Strategy in PLC	11
0.570	Interacting Between Benchmarking Approach to Low-Cost Strategy with Advocate for Low-Cost Strategy in PLC	16
0.506	Interacting Between Emerging Strategy, Product Design Distinguishes with Advocate for Low-Cost Strategy in PLC	8
0.451	Interacting Between Benchmarking Approach to Low-Cost Strategy with Differentiated Defender Strategy in PLC	15
0.367	Interacting Between Emerging Strategy, Low-Cost Approach with Analyst Strategy in PLC	2
0.207	Interacting Between Emerging Strategy, Low-Cost Approach with Advocate for Low-Cost Strategy in PLC	4

Source: researcher data collection

Figure3: Interacting Business Strategies and R&D Strategies Ranking in Various Stages of PLC

5. Conclusion and Results

The results show, the Introduction stage, maximum interactions are between Emerging Strategy with low-cost product design strategy and analyst Strategy. Minimum interactions are between Benchmarking strategies with customer needs approach with low-cost defense strategy. The Growth stage, maximum interactions are between Benchmarking strategies with customer needs approach with low-cost defense strategy. Minimum interactions are between Benchmarking strategies with low-cost approach with differentiated defender strategy. The Maturity stage, maximum interactions are between Benchmarking strategies with customer needs approach with differentiated defender strategy with low-cost approach. Minimum interactions are between Benchmarking strategies with low-cost approach with differentiated defender strategy. The Death stage, maximum interactions are between Benchmarking strategies with customer needs approach with differentiated defender strategy with low-cost approach. Minimum interactions are between Benchmarking strategies with low-cost approach with differentiated defender strategy.

A content analysis of the respondents is 23, 392 iterations of the concepts discussed by them, 142 agent and 250 internal, external factors, in other words 36% of the responses were related to internal factors and 64 % external factors. The greatest emphasis least it can be considered for categories of respondents indicated such. The attitude to the market as the maximum frequency that category accounted for 25% of the volume of responses. Political concerns in the second and 21% of the volume is devoted to the answer. R&D and innovation policies, with 11% and 8% of sites are next.

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