

**RELATIONSHIP BETWEEN BUSINESS INTELLIGENCE AND
ORGANIZATIONAL PERFORMANCE
(CASE STUDY: FOOD INDUSTRY COMPANIES IN RASHT
INDUSTRIAL CITY)**

Mehrdad Goudarzvand Chegini

Department of Public Management, Rasht Branch, Islamic Azad University, Rasht, Iran

Mohammad Taleghani

Department of Industrial Management, Rasht Branch, Islamic Azad University, Rasht, Iran

Fattaneh Naghibi Gerdvisheh (Corresponding Author)

M.A. Student of Business Management, Islamic Azad University, Rasht Branch, Rasht, Iran

Abstract

The Purpose of this study is investigating the relationship between manager's business intelligence and the performance of food industry companies in Rasht industrial city. This paper is a descriptive - analytical research and a correlational one, and in aspect of applied target is based on structural equation. Statistical universe of this research include all food industry companies in Rasht industrial city, which are 32 companies, and sample size through Krejcie and Morgan Table includes 30 companies which are selected by simple random sampling method. A researcher made questionnaire, special to managers, has been used to data collection. The content validity of the questionnaire has been confirmed by experts and scholars, and its reliability calculated respectively 0.937, 0.871 by Cronbach's alpha coefficient for two variables of business intelligence and performance. Business intelligence questionnaire in this research is researcher made, and according to dimensions of business intelligence includes 42 questions, and performance includes 11 questions. Collected data has analyzed by SPSS software; research findings indicate that business intelligence has positive and significant impact on the performance. Thus, organizational learning has the strongest relationship with the performance of company, and policies of continuous improvement are the second strong one.

Keywords: Business Intelligence; Performance; Information; Employee's Capabilities of Learning knowledge; Policies of Continuous Improvement, Information technology investments, technology and substructure, organizational learning

1. Introduction:

Business intelligence is great and covering term that initially has been introduced by "Howard Dresner", from Gartner Group, in 1989, to describe sets of concepts and methods of improving business decision making, by using computer support systems. The first scientific definition, defined business intelligence, "a managerial philosophy, and a tool to help organizations in

managing and purifying business information and data, with target of efficient decision making in business environments"(Ghazanfari et al. 2008, p 5).

Business intelligence uses methods, trends, and market future orientation, technologies and environment to understand available capabilities of company, and monitor competition, competitor activities, and the consequences of these activities. Business intelligence as an applied program, when is growing that has the most information technology.(Houten,2010)Business intelligence covers functions and tasks of data collecting, processing and analyzing a wide volume of them from internal systems and external resources, and it is possible, because business intelligence uses advanced and quick tools of analysis, which help company make timely and urgent decisions to achieve organizational objectives (Mohaghar, 2008, p 3).Business intelligence as a system, in addition to play this role, can cause the organization by applying correct available information benefit competitive advantage and pioneering in the market.(Armstrong,2006)Furthermore, business intelligence can provide the possibility of controlling and tracking organization key processes to administrators and can be a basis to effective decision making for organizational managers. Indeed, business intelligence causes organizational data and information become coherent and integrated and converts knowledge.(Hatun et al, 2012)Collecting, applying, transferring and recovering information and knowledge will guarantee the survival of organization, and causes the organization, in the business world, act intelligently (Haghighat and Malayeri, 2010, p 2).According to recent years, the importance of information is on organization management, as well as advanced information technology, as an applied system in business.(Cohen,2009) Capable companies and institutions make decision by many of this knowledge, and improve the efficiency of organization.(Engström et al,2007)Meanwhile there is a wide range of technology to collected information and knowledge in organizational level, and also, the process of business intelligence try to solve problem through data analysis. The success of an information system should be in both aspects of project management success and software efficiency at time of establishment, if a business intelligence system could establish successfully, then it can play its main role in four aspects, which are respectively mentioned:

1. Contribute to understand the status of system
2. Measuring organizational performance
3. Improving practitioners' relations
4. Developing profitable opportunities (Lin, et al., 2009, P.2)

In today's organizations, maximizing the performance of company and managers within organization, and their proper relationship with the environment have been very important and is observable among the main purpose of many organizations. Therefore, different organizations, especially organizations in Third World Countries, which require a great move toward efficiency, should provide a base, so that their employees and managers use all their experiences, abilities and capacities to organizational goals. The purpose of this study is evaluating organizational performance food industry companies in Rasht industrial city by using business intelligence. In this research, presented conceptual framework has tried to investigate the

potential relationship between business intelligence and dimensions and factors which affecting it, as well as, identifying effective structures on organizational performance of this research.

2. Research Hypotheses:

2-1 - The Main Hypotheses:

1-6-1-1 –there is a relationship between business intelligence and the performance of food industry companies in Rasht industrial city.

2-2 –The Secondary Hypotheses:

2-2-1 - there is a relationship between efficient flow of information and the performance of food industry companies in Rasht industrial city.

2-2-2 - there is a relationship between employee’s capabilities of learning knowledge and the performance of food industry companies in Rasht industrial city.

2-2-3 - there is a relationship between policies of continuous improvement and the performance of food industry companies in Rasht industrial city.

2-2-4 - there is a relationship between Investment in information technology (IT)and the performance of food industry companies in Rasht industrial city.

2-2-5 - there is a relationship between technology and IT infrastructures and the performance of food industry companies in Rasht industrial city.

2-2-6 - there is a relationship between organizational learning and the performance of food industry companies in Rasht industrial city.

3. The Statistical Universe

Statistical universe of this research includes all food industry companies in Rasht industrial city, which are 32 companies (Statistics have been collected accurately and documentary from Commercial Organization and from office of Rasht industrial city, by phone).Applied sampling method in this study has been a random sampling method in which equal opportunity of selecting individuals from society, to membership in sample has been important point. And selected sample is representative of statistical universe, and its attributes are compliant with attributes of society; In other words, logic or the base of inferential statistics has been considered. Among probable sampling methods, according to this fact that the size of target universe is great several samples also are selected randomly; then, from those samples, which in fact are as a smaller scale of main universe, selecting sample has been done by simple random methods (by using random number table).

4. Methods and Data Collection Instruments

The main data collection instrument in this research is questionnaire. In order to evaluate business intelligence a researcher made questionnaire, consists of 6 dimensions, and 42questions, and to evaluate the performance researcher made questionnaire, consists of 11 questions have been used. To perform and proper scoring variables, questionnaires were used that have been made according to research model, dimensions, and components.

5- Hypothesis Testing

5-1 - The main hypotheses:

The main hypothesis of the present study is consistent with the findings of , Pull means that the relationship between business intelligence and performance of food , the correlation coefficient of 0/748 and approved with 99% confidence that the mean \rightarrow that the regression is significant , meaning that much of the business intelligence capabilities of managers \rightarrow increases, the performance of the company is. The main hypothesis of this study is that the results can \rightarrow BI products and services to increase sales and market share , attract new customers to organize , enhance quality of life and improve employee satisfaction, employee satisfaction \rightarrow take advantage. Thus, the impact of business intelligence components are listed \rightarrow improve the performance of the whole organization . The main hypothesis of this research study, the results of the business intelligence function organized by Corinne Cohen (2009) is the \rightarrow direction .

5-2 -1- First Hypothesis: in this study, there is no significant relationship between efficient flow of information and the performance of food industry companies in Rasht industrial city. The first secondary hypothesis of this research is not based on a significant relationship between information flow and the performance. Research results on the application of business intelligence in information technology by "Badami" (2002) indicate that information has a significant relationship with performance; but in this research, there is no significant relationship between these two variables, due to some problems such as restriction in providing information, and lack of giving information due to confidentiality of information, and frightening from telling reality because of marginal problems.

5-2 – 2- Second Hypothesis: there is a relationship between employee's capabilities of learning knowledge and the performance of food industry companies in Rasht industrial city. Research second sub-hypothesis that is based on a significant relationship between two mentioned variables in company is confirmed by correlation coefficient of 0.545 and reliability of 95 percent. The result of the Research performed by "Akhavan" et al (2009), on the relationship between capabilities of learning management and performance indicate that Knowledge management has a significant relationship with the importance of strategy performance.

5-2-3 - The Third Hypothesis: there is a relationship between policies of continuous improvement and the performance of food industry companies in Rasht industrial city. Research third sub-hypothesis that is based on a significant relationship between policies of continuous improvement and the performance of managers in the company is confirmed according to the correlation coefficient of 0.653 and reliability of 95 percent. The result of the Research performed by "Zahir" et al (2012) on the relationship between continuous improvements with the performance implies that there is a positive and significant relationship between continuous improvement and the performance.

5-2-4 - the fourth hypothesis: there is a relationship between investment in information technology (it) and the performance of food industry companies in Rasht industrial city. Ultimately, there search fourth sub-hypothesis that is based on a significant relationship between investment in information technology and the performance of company is confirmed according

to the correlation coefficient of 0.502 and reliability of 95 percent. The results of the research performed by “Kim Chang-Soo” (2004) indicate significant relationship between these two variables.

5-2-5 - The Fifth Hypothesis: there is a relationship between technology and IT infrastructures and the performance of food industry companies in Rasht industrial city. The fifth research sub-hypothesis that is based on a significant relationship between technology and IT infrastructures and the performance of company is confirmed according to the correlation coefficient of 0.574 and reliability of 95 percent. The results of the Research performed by “Charang” (2013) indicate positive and significant relationship between levels and structure of performance

5-2-6 - The Sixth Hypothesis: there is a relationship between organizational learning and the performance of food industry companies in Rasht industrial city. Research sixth sub-hypothesis that is based on a significant relationship between organizational learning and performance of managers is confirmed according to the correlation coefficient of 0.666 and reliability of 95 percent. In research performed by “Teresa” and “Voldi” (2009) on organizational learning and transmission of strategies to performance, results indicate that organizational learning will increase the advantages and in unstable economic conditions, and in a varied environment, pay attention to global competition. Regression correlation tests to evaluate research hypotheses are summarized in Table (5-1).

Table (1): Results of Research Hypothesis Testing

Research Hypotheses		sig	Correlation Coefficient	Test Result
Hypothesis	The Context of Research Hypotheses			
The Main Hypothesis	There is a relationship between business intelligence and the performance of food industry companies in Rasht industrial city.	0.000	0.748	Confirmed
Subsidiary Hypothesis	1- There is a relationship between efficient flow of information and the performance of food industry companies in Rasht industrial city.	0.239	0.222	Rejected
	2- There is a relationship between employee’s capabilities of learning knowledge and the performance of food industry companies in Rasht industrial city.	0.002	0.545	Confirmed
	3- There is a relationship between policies of continuous improvement and the performance of food industry companies in Rasht industrial city.	0.000	0.653	Confirmed
	4 - There is a relationship between investment in information technology (IT) and the performance of food industry companies in Rasht industrial city.	0.005	0.502	Confirmed

	5 -There is a relationship between technology and IT infrastructures and the performance of food industry companies in Rasht industrial city.	0.001	0.574	Confirmed
	6- There is a relationship between organizational learning and the performance of food industry companies in Rasht industrial city.	0.000	0.666	Confirmed

According to research results, the highest relationship has been between dimensions of business intelligence and organizational learning with performance, therefore organizational learning has the strongest relationship with company performance and policies of continuous improvement is in second place.

6. Conclusions and Recommendations

With regard to the first hypothesis, i.e. there is no significant relationship between efficient information flow and the performance of company, as a result of some marginal problems, the relationship between the effective flow of information and company performance (confidentiality of information, and fear of telling the reality) it is recommended that companies give managers, freedom of speech and acting ability within their operating framework and responsibility, to determine the strengths and weaknesses of company performance, which will enhance its performance.

-According to second hypothesis, i.e. there is a significant relationship between employee's capabilities of learning knowledge and performance of company, enhancing organizational is recommended to increase company performance.

-According to third hypothesizes. There is a significant relationship between policies of continuous improvement and the performance a policy of continuous improvement, and performance of company, it is recommended that through increasing environmental management and enhancing product quality, customer satisfaction will increases, and as a result company performance will increase

-With regard to the fourth hypothesis i.e. there is a significant relationship between investments in information technology (IT) and the company performance, investing on thoughts systematically on information technology and communication is recommended.

- Regarding the fifth hypothesis, i.e. there is a significant relationship between technology and IT infrastructures and the performance of company entering up to date and timely information to company is recommended, so that processing that obtained knowledge will improve and increase company performance.

- With regard to the sixth hypothesis, i.e. there is a significant relationship between organizational learning and company performance, and its highest rank in the dimension of business intelligence, it is recommended by creating new skills to organization development and growth, and try toward improve company knowledge and information, will improve organizational performance.

7. References

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