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Explaining the Role of Business Intelligence Capabilities in the Companies' Brand Management

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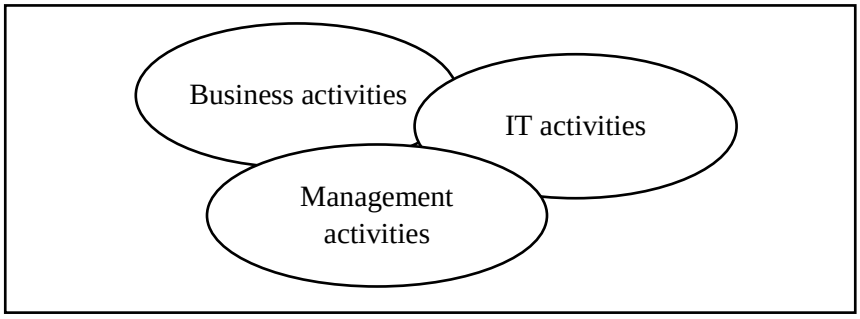
Abstract
During the recent years, companies need to apply strategic ideas to guide, evaluate and maintain the performance and management of their brand in market in order to reach a better competition, maintenance and customer and shareholder support. While, due to the fast growing changes and information masses, we need to change some methods and instruments to have an accurate, on time and intelligent decision making, in line with the advantage of market opportunities and consolidation of company's brand condition. Business intelligence is one of the best and newest initiative instruments to face such situations. Therefore, the aim of this study is investigating the role of business intelligence capabilities in the organizations brand management. The current study, according to its goal is an applied research type and from the point view of its collecting data method is a descriptive correlation type. The statistic society of this study includes the managers in knowledge-based companies in Science and Technology Park of Alborz province that its sample size is determined using Cochran Formula. To make sure of the variables normality in this study, we used Kolmogorov and Smirnov tests and to analyze the research hypothesis we used correlation test, regression analysis, regression variance analysis test and the standard beta coefficient. The results of research confirms the research hypothesis; therefore, we can say that business intelligence capabilities means that data integrity level, information delivery and information analysis have a positive and meaningful effect on brand management.
Keywords: business intelligence, capabilities, brand management

1. Theoretical basis

Passing from the industrial age to knowledge age, the necessity and quality of creating societies and organizations on the basis of knowledge and also the management method and utilization of strategic and valuable sources, has put the intelligence and the knowledge in the instructions of managing scientists and the organizations (Haqiqat, Monfared, 2012).
In the business world of today, information and knowledge have turned into the main wealth of organizations and business firms and production units are looking for more utilization of this wealth to take the competitive advantages using information and communication technology in their serious decisions, so that today in all business pillars, systems and organizational software have formed the business activities and turned into a new tank for organizational data. Therefore regarding the significance of decision making in the organization and the need to be supported in decision making using business intelligence, the importance of integrity in decision making support using organizational systems (process context and organization data) will be determined more than before. The business intelligence enables the organizations to make decisions consciously, so it can be a source of competitive advantages. This applies when the organization is able to export the information out of indicators in external environment and making accurate predictions about trends and economical situations of business in future; the organization compares the information and indicators of the environment around and predicts the trends of the tasks in future and enables the managers to realize the organization situation in comparison with their rivals (Haqiqat Monfared, 2012). Business intelligence is a collection of abilities, technologies, instruments and approaches that contributes to a

better realization for managers. Business intelligence instruments provide insights of past, present and future situations for people. Business intelligence not as an instrument or a product or even a system, but as a new approach in organizational architecture is designed according to the speed of information analysis, in order to make accurate and intelligent business decisions in the least possible time (Ebrahimian, 2013).

Figure 1. The areas of conflict of business intelligence in the organization (Bahrami et al., 2012)



Business intelligence can be considered as a set of mathematical models and analytical methods for extracting information and knowledge from existing data. Which is used for complex decision making. In large organizations, decisions are made on an alternate basis. Some decisions may be more or less critical or have long-term or short-term effects and involve different individuals and roles and hierarchies. The ability to decide the knowledge workers of an organization individually and collectively is one of the important and influential factors on the productivity and competitive advantage of an organization (Petrishi, 23: 2011). In summary, the advantages of using business intelligence in each organization are: 1. Improvement and improvement of quality in the operations of the organization; 2. Integration of information; 3. More detailed analysis of the organization's conditions; 4. Forecast of the future organization; 5. Creation of infrastructure in the decision making of the organization; 6. Creating more opportunities in the business competitiveness of the organization (Ebrahimian, 56: 2013).

1-2. Business Intelligence Approaches

The review of literature in the field of business intelligence "division" represents two different views on this topic. The first approach is the management approach of business intelligence, in which data are collected and integrated from within and outside the organization. So that they can create information about the decision making process. The role of business intelligence in this view is to create an environment and information space in which operational data acquired from transaction processing systems and external resources can be analyzed. To provide strategic business knowledge in support of unprofitable business decision making (Petter and colleague, 2008). Boss (2011), The managerial approach regards business intelligence as a process for delivering right information to right people at the right time for decision making.

Which can improve the performance of the organization. In other words, in the management approach by integrating data from internal and external resources, practical information is created to improve decision support. And the benefits of deploying integrated transaction processing systems and enterprise applications (Oracle, 2007). The second approach to business intelligence is a technical approach based on this approach as a set of tools that supports the processes mentioned. The focus of this approach is on technologies, algorithms and tools that can store, retrieve, aggregate and analyze data and information (Petter and colleague, 2008).

This approach, usually on the applications and technologies needed to collect, store, analyzing data and providing adequate access to data in order to help management make better decision-making. The dimensions are related to each other and cannot be considered as completely independent factors. The managerial dimension from two perspectives can affect the technical dimension. 1) Management

support for the cost of hardware. 2) Management support for creating software that can mechanically collect the information. In the technical aspect, the appropriate hardware and software platform has been emphasized. In the managerial dimension, there is also support for senior management support, managers with business intelligence, the need for information transparency, the existence of data creation processes and processes for data integrity is also the most important management infrastructure (Habibi et al., 1394).

1-3. The rate of applying business intelligence to the organization

The necessity of deploying business intelligence tools in organizations in the knowledge age and in the information society can be examined from a variety of dimensions. From the perspective of senior management of the organization, the use of business intelligence tools to analyze the current status of the organization, defining short and long term goals, updating and controlling performance indicators, Analysis of competitors, analysis of opportunities and challenges of the organization is useful. From the perspective of executive management, when making decisions in areas of uncertainty and vagueness with prediction And estimates of the outcome of making decisions, from a financial management perspective to monitoring and controlling financial reports and performance indicators, From the point of view of supply chain management to control and improve relationships with suppliers and partners of the organization, from the point of view of customer relationship management to identify, categorize, policy, and improve customer relationship management. According to studies in the literature, the necessity of using business intelligence in organizations can be classified as follows:

1. Business operations of modern organizations can generate massive amounts of information, traditional analysis tools and methods are not capable of timely and accurate analysis of the business. Therefore, business intelligence systems are essential for today's organizations. Modern business intelligence systems reflect the ability to manage and make logical decisions and can integrate different types of data from different sources and discover new knowledge of data for accurate prediction and decision making (Yang et al., 2012).

2. Organizations faced challenges such as increased customer expectations, automation, competition, mergers, new product development, and market segmentation. At the same time, they have to manage risk and align their business performance with the growth of international and national laws and regulations. Since management activities are limited to decisions, decisions must be timely, effective, and based on accurate and reliable information, which help managers to make strategic decisions (Jan 275: 2012). Accordingly, the organization compares the information and indices of the perimeter environment with the use of business intelligence and predicts the trend in the future. Enabling managers to better understand the position of an organization compared to its competitors (Tollai et al., 2015).

3.

1-4. Brand management

In today's competitive world, companies or organizations are looking to be able to produce, in addition to increased profits, a product that meets customer requirements. And it can also provide more value for the customer, which will lead to customer satisfaction. One of the most important issues for companies is the production of distinct products from competitors. Because the survival of the current competitive world, Brand distinction is a tool that can be used to some extent to achieve these goals. Because, the use of brand management improves the quality of customer products, increases sales volumes and increases customer loyalty. Brand management also provides a framework for product differentiation (Veb Pariops, 23: 2011). Considering marketing activities as a tool for customer presence and the creation of intellectual property in the name of the brand, is a new perspective on marketing science. Various studies have shown that real value is not inside the product or service, but this value is in the real and potential customers' minds and this brand is Which creates real value in the minds of customers. That's why the companies have paid special attention to brand and management. Having a strong brand will increase the ability to compete with the company and increase its profitability. Brand management involves branding, branding and all management activities of a phenomenon, or in the sense of the process of creating brand, maintaining, Brand improvement and support that bring positive results.

Brand management has three main areas where each of them is in turn important: Brand building (when a

brand newly created and introduced into the market is actually in its introduction); 2. Brand development (at this time, the brand is in the stage of growth and maturation); 3. Brand Audit (Given the highly competitive market environment and the complexity of the buyers' behavior, brand auditors make it possible to rank a brand in Creates the mind of the client, fixing his mind and staying constant. Due to the complex and crowded competitive environment, managers of organizations should be able to, in conditions of confidentiality, conflict and uncertainty (risk), Make decisions that are difficult due to the large amount of data and information and the increasing speed of competition. Therefore, the use of the tools and techniques of the business intelligence system in order to process the appropriate and valuable data into the correct knowledge and information, will help the organization to accelerate the appropriate decision.

2. background research

Table 1: Research background

findings	research fellow	
Propose a new business intelligence approach based on the subject of order service and marketing strategies for the university and doctors have proposed a two-stage probabilistic system. The results of this experiment show the effectiveness of this two-step approach.	Van (2012)	1
By presenting a model of business intelligence, the effect of moderating factors such as organizational culture and business strategy in the development of business intelligence and its competitive advantage. He showed that organizations that have received business intelligence with the financial and ethical support of high-level management.	Ahmad (2015)	2
Introduced business intelligence as a mediating factor affecting the effectiveness of strategy, structure, processes and organizational culture.	Arafin, (2015)	3
Recognizing the strategic and tactical actions of Chinese executives and promoting the use of culture to share knowledge has led to the implementation of business intelligence systems.	Ming et al. (2010)	4
In their research, they have made various formulas to understand the impact of different service features on customer experience to drive customers' homes using the BI tool.	Jashi (2014)	5
In addition to introducing the processes of market management and the necessary necessity for creativity and innovation, and creating these processes for competition in the current world trade, the principles and characteristics of business intelligence have also been mentioned. Then, in addition to providing a framework for identifying the various dimensions and functions of business intelligence, They also provided the organization's features to achieve the business intelligence approach and its benefits in the business process.	Bahrami et al (2012)	6
Using the BI system in an organization to quickly analyze and predict the large amount of information and transform them into knowledge, allowing brand managers to achieve organizational goals such as having competitive advantage, maintaining a positive and continuous performance, and timely and accurate decision making. Getting the right and timely decisions in the organization can guarantee its success in the competition. With the guarantee of survival and maintaining the value of the organization and its brand, brand management goals are realized.	Tavalayee (1394)	7
The existence of suitable hardware and software platform is the most important technical infrastructure for using business intelligence in the organization. The familiarity of managers with business intelligence, the need for information clarity, the existence of data creation processes, and processes for data integrity are also the most important administrative infrastructure.	Habibi et al (1394)	8
Although business intelligence has the potential to provide financial performance, But understanding this mechanism and achieving financial success requires attention to the efficiency of the innovation system and the effectiveness of brand management.	Shafiee (1396)	9
There is a significant relationship between the capabilities of business intelligence and its components, and the moderating variable of the levels of business intelligence maturity, and its components are significant and the moderating variable of the levels of commercial intelligence maturity in this regard is not affected. Also, there is a direct relation between the capabilities of	bakhshandeh (1395)	10

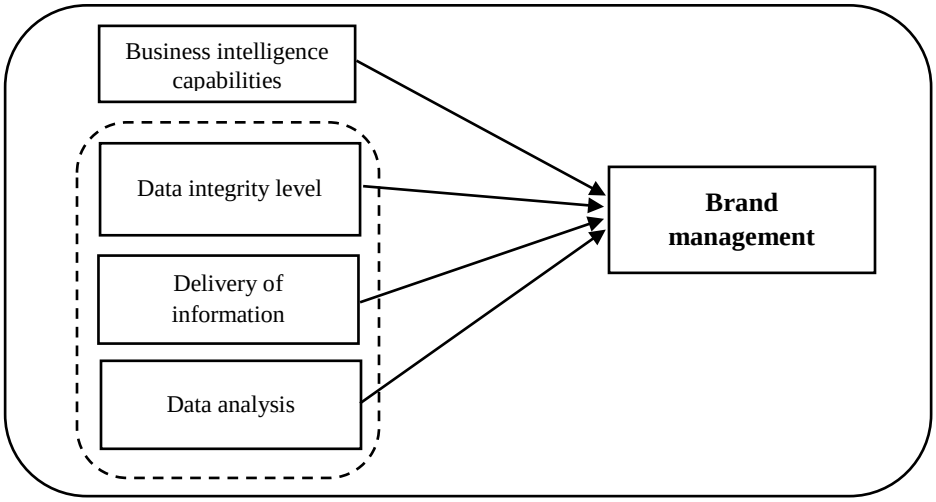
business intelligence and its advantages, and the mediating variable of the components of business intelligence, Cannot establish an indirect relationship between the capabilities of business intelligence and the benefits of business intelligence		

3. Conceptual model and research hypotheses

3-1. Conceptual model of research

The present study was conducted based on Gartner's maturity model. The most important aspect of this model's differentiation compared to other models is to consider business performance management as part of commercial intelligence maturity, which distinguishes it from traditional forms of business intelligence. This model is based on five levels (ignorance, tactics, focus, strategic and inclusive) and three key areas (individuals, processes and metrics, technology). This model also takes into account three capabilities: 1. Integration (business intelligence infrastructure, metadata management, and development tools); Information delivery (reporting, dashboard, query, search engine driven BI and mobile-based business intelligence); 3. information analysis (Reporting, dashboard, query, business intelligence-driven search, and mobile-intelligent business intelligence); 3. information analysis(Instant Analysis, Interactive Visualization, Prediction Modeling, Data Mining, and Scorecard) (Gartner Group, 2012) have a higher priority than other business intelligence models.

Figure 2. Conceptual model of research



3-2. Research hypotheses

The hypotheses of this research are:

Hypothesis 1. The business intelligence capabilities have a positive and significant effect on brand management.

Hypothesis 2 Data integrity has a positive and significant effect on brand management

Hypothesis 3. Delivery of information has a positive and significant effect on brand management.

Hypothesis 4. Analysis of information on brand management has a positive and significant effect.

4. Research Method

The present research is based on the purpose of the types of applied research and as a method of collecting information, types of research-descriptive-correlations are considered. The statistical population of this study consists of 393 senior executives and marketing, research and development experts, information technology and research and development experts Knowledge Based Companies in Alborz Province Science and Technology Park, whose sample size was determined using the Cochran formula 247 people. Sampling was carried out in a simple random manner. In this research, the method

of collecting field information and its tools is a questionnaire.

In order to confirm the validity of the questionnaire, the professors were asked to use the alpha coefficient of Chronihakh to determine their reliability. Which amount for the whole questionnaire was calculated to be more than 70% and based on which the questionnaire has a good reliability. In this study, Kolmogrov-Smirnov test (K-S) was used to diagnose normal distribution of data and to examine and test hypotheses through correlation test, Regression analysis, regression analysis of variance and standardized beta coefficient were used. The software used in this study was SPSS.

5. Research findings

5-1. Descriptive findings

To better understand the context of the statistical society and the research variables, before analyzing the statistical data, Describes the demographic data of sample members in Table 2.

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Frequency	Number	Indicator	Variables
17/40	43	Female	Sex
82/59	204	Man	
30/36	75	Less than 30 years	age
31/98	79	Between 30 and 45 years	
20/64	51	Between 46 and 60 years old	
14/97	37	More than 60 years old	
46/15	114	Bachelor	education
38/46	95	MA	
15/78	39	Phd	
39/27	97	Senior Managers	Organizational position
33/60	38	Marketing Managers, Information Technology and Research & Development	
27/12	67	Marketing experts, IT and R & D	

Based on the findings in Table 2, 17.41% of the respondents are female and 82.59% of them are male. Most respondents are between the ages of 30 and 40 and under 30. The level of education is higher for undergraduate and postgraduate students. In addition, the highest percentage of post-organizational perceptions belongs to top executives and marketing managers, IT and R & D.

In the following, the results related to the descriptive statistics of the research variables are presented in Table 3.

Table 3. Descriptive statistics of research variables

Standard deviation	Average	Number	Variables
0/785	4/235	247	Brand management
0/569	3/369	247	Business intelligence capabilities
0/398	4/156	247	Data integrity level
0/753	4/897	247	Delivery of information
0/625	3/965	247	Data analysis

5-2. Testing hypotheses

As stated in this study, Kolmogorov Smirnov test was used to determine the normal distribution of data. Has been The results are shown in Table 4. The variables of the research are normal distribution.

Table 4. Distribution of the variables of the research

Data analysis	Delivery of information	Data integrity level	Business intelligence capabilities	Brand management	
247	247	247	247	247	Number
0/106	0/81	0/104	0/179	0/105	Pure
4/756	4/012	4/392	4/443	4/151	Average
0/556	0/498	0/561	0/395	0/553	Standard deviation
0/096	0/081	0/097	0/109	0/098	Positive
-0/106	-0/81	-0/102	-0/179	-0/105	Negative
0/923	1/106	1/112	1/372	1/119	Z (K-S)
0/365	0/193	0/197	0/061	0/158	Significance level

Based on the results in Table 4, the K-S test value for all research variables is larger than the 0.05 level and the total data is normal distribution. Therefore, it can be admitted that using Pearson correlation coefficient and regression analysis is possible.

5-2-1. Examining Hypotheses

In the following, the results of the hypothesis review are presented using regression analysis, regression analysis of variance and standardized beta coefficient. Regression analysis is a step after correlation. The time regression analysis is used to predict the values of a variable from other variable values. An independent variable (or prefix) is called. The variable that we want to predict is the dependent variable (or criterion).

Table 5. Regression analysis results

Dobin Watson	Estimated criterion error	R^2	R	Independent variables
1/861	0/341	0/278	0/659	Business intelligence capabilities
1/586	0/413	0/245	0/578	Data integrity level
1/532	0/498	0/237	0/511	Delivery of information
1/532	0/512	0/213	0/411	Data analysis

The correlation coefficient of R strongly correlates between two variables. Based on the results shown in Table 5, the value of this coefficient for the variables of business intelligence capabilities, data integrity, Data delivery and data analysis are respectively 0.69, 0.558, 0.511 and 0.448, respectively. Also, according to the amount of adjusted coefficient R^2 For each of the variables, it can be said with confidence that the business intelligence capabilities are as high as 0.276%, the data integrity level is 0/256% Data integrity is 0.256%, information delivery is 229%, and information analysis of 198% has an impact on brand management. In regression, when the behavior of the dependent variable is studied in a given time interval, we may deal with the problem of the independence of the errors, this kind of communication is called self-correlation data. Statistics, dobin -Watson statistics are a test statistic that is used to examine the correlation between residuals in regression analysis. The Watson Doubles Amount is between 0 and 4. If there is no consistency between the remnants, the value of this statistic should be close to 2.

If it is close to zero, it indicates a positive correlation and, if close to 4, indicates a negative correlation. In general, if this statistic is between 1.5 and 2.5, it is not a concern. According to the results of Table 5 since the statistics of dobin Watson in the final model for each of the variables in the acceptable range of 1.5 to 2.5, there is no correlation problem in the remainder.

Table 6. Regression variance analysis

Significance level	F	The average of second powers	Degrees of freedom	Total second powers	Model	Variables
0/000	41/536	8/651	1	8/651	regression	Business intelligence capabilities
-	-	0/211	0/245	23/77	left over	
-	-	-	246	32/421	Total	
0/000	47/367	8.875	1	8/875	regression	Data integrity level
-	-	0/198	245	23/563	left over	
-	-	-	246	32/421	Total	
0/000	31/212	4/456	1	4/456	regression	Delivery of information
-	-	0/289	245	30//875	left over	
-	-	-	246	35/351	Total	
0/001	21/315	5/102	1	5/102	regression	Data analysis
-	-	0/239	245	27/319	left over	
-	-	-	246	32/421	Total	

F analysis of one-way ANOVA or ANOVA is used to test the comparison of the mean of a quantitative variable among more than two independent groups. In fact, this generalized test of the same T test is two independent examples, with the same assumptions, and the only difference is.

The mean of the quantitative variables is compared in more than two independent groups. Indeed, ANOVA's analysis of ANOVA only answers this question Is there any difference between different groups (little variables)? Based on the variance analysis data in Table 4, the calculated F value for each of the variables of business intelligence capabilities, Data integrity, data delivery and analysis of information is equal to 563/41, 47/367, 311/21 and 315/21. Also, due to the level of significance of each of the variables, which is smaller than the level of error, ie Sig = 0/000 <0/01, it can be acknowledged That model is significant at 0.01 level. Hence, with 99% confidence, the hypothesis is zero and hypothesis 1 is confirmed in each research hypothesis. The beta coefficient means the expected change of the dependent variable, the negative beta coefficient means that with a positive standard deviation unit in x or the independent variable, it is expected to result in a change in the negative beta coefficient in Y or in the dependent variable. The beta coefficient is measured relative to the value of 1, That is, the beta coefficient one, greater than one and smaller than one, indicates, in turn, that intensity, the more severe the changes are.

The beta coefficient of zero also indicates the indifference and independence of the variations. Finally, the positive sign of the beta coefficient, the consistency and the negative sign of this coefficient, show the unconsciousness of the variations of the dependent variables relative to the independent variable. The results of the beta coefficient of this study are shown in Table 7.

Table 7. Standardized coefficient β

Data analysis		Delivery of information		Data integrity level		Business intelligence capabilities		Variable	
Data analysis	Constant factor	Delivery of information	Constant factor	Data integrity level	Constant factor	Business intelligence capabilities	Constant factor	Model	
0/000	0/000	0/000	0/000	0/000	0/000	0/000	0/000	Significance level	
7/328	6/428	6/962	7/756	7/781	6/689	6/521	5/364	T	
0/541	-	0/568	-	0/533	-	0/524	-	Standardized coefficients β.	
0/079	0/341	0/067	0/275	0/073	0/311	0/077	0/321	standard error	Not standardized coefficients
0/358	0/631	3/356	2/326	0/514	1/908	0/485	1/865	B	

According to the results of test t in table 7, the coefficient of influence for each of the variables of business intelligence capabilities, data integrity, Information delivery and information analysis on brand management are positive and all of its parameters in the models are meaningful. Also, since the significance level of the parameters is smaller than the error level, the regression equation for all hypotheses is confirmed.

6. Discussion and conclusion

The purpose of this study was to investigate the role of business intelligence capabilities on brand management. First, the Kolmogrov-Smirnov test was performed. Then, considering that the results indicated the normal distribution of variables, analyzing the hypotheses of the research was used by inferential statistics. Based on the results of the hypothesis test, in the first hypothesis that there is a positive and significant effect on business intelligence capabilities on brand management, With regard to the value of the assigned coefficient) R^2 (of 0.29 at the confidence level of 0.99, this hypothesis is confirmed, this finding is consistent with the results of studies by Mir'ei et al. (2010). Fleischer & Fellow (2009). In examining the second hypothesis, the positive and significant effect of data integrity on brand management, the value of the coefficient) R^2 (Equivalent to 0.25 at a confidence level of 0.99, this finding is consistent with the studies by Habibi et al. (2015) and Bakhshandeh et al. (2016).

The results of the third hypothesis, based on the positive and significant effect of information delivery on brand management, at the confidence level of 0.99, the value of the assigned coefficient (R^2) was calculated to be 24 Which suggests confirmation of this hypothesis. This finding is consistent with the results of Tulaei et al. (2015) and Shafie et al. (2016). The results of the study of the fourth hypothesis that the information analysis has a positive and significant effect on brand management; at a confidence level of 0.99, the assigned coefficient (R^2) was 21 Which indicates confirmation of the hypothesis. This finding is in agreement with the results of the research by Zarou et al. (2011), Shafi'i et al. (1395, Beneficent and Fellow (2015). Therefore, according to the results of the research, it can be admitted that the directors of the brand to make timely and correct decisions in different conditions, including conditions of confidentiality, conflicts, uncertainties (risk), and ..., Predicting customer behavior and recognizing market demand requires useful and relevant data and facts requiring the use of business intelligence By using their tools and techniques, they can easily remove managers from a wide variety of data and data sets and provide them with the right knowledge. When informed by the business intelligence system of this correct information to the brand managers, they will gain knowledge of the competitive environment of the market. And with this knowledge, they can use marketing and advertising techniques to expand the product brand and advance towards other competitors. Because the brand manager of an organization that has the ability to make timely and relevant decisions will succeed in a competitive environment. The success and reputation of this organization can guarantee the goals of branding, including the impact on customer selection, creating an unwritten commitment to consumers on the stability and repeatability of a good experience from the use of goods or services and distinguishing goods and services from other products of competitors.

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The correlation coefficient of R strongly correlates between two variables. Based on the results shown in Table 5, the value of this coefficient for the variables of business intelligence capabilities, data integrity, Data delivery and data analysis are respectively 0.69, 0.558, 0.511 and 0.448, respectively. Also, according to the amount of

adjusted coefficient R^2 For each of the variables, it can be said with confidence that the business intelligence capabilities are as high as 0.276%, the data integrity level is 0/256% Data integrity is 0.256%, information delivery is 229%, and information analysis of 198% has an impact on brand management. In regression, when the behavior of the dependent variable is studied in a given time interval, we may deal with the problem of the independence of the errors, this kind of communication is called self-correlation data. Statistics, dobin -Watson statistics are a test statistic that is used to examine the correlation between residuals in regression analysis. The Watson Doubles Amount is between 0 and 4. If there is no consistency between the remnants, the value of this statistic should be close to 2. If it is close to zero, it indicates a positive correlation and, if close to 4, indicates a negative correlation. In general, if this statistic is between 1.5 and 2.5, it is not a concern. According to the results of Table 5 since the statistics of dobin Watson in the final model for each of the variables in the acceptable range of 1.5 to 2.5, there is no correlation problem in the remainder.

F analysis of one-way ANOVA or ANOVA is used to test the comparison of the mean of a quantitative variable among more than two independent groups. In fact, this generalized test of the same T test is two independent examples, with the same assumptions, and the only difference is. The mean of the quantitative variables is compared in more than two independent groups. Indeed, ANOVA's analysis of ANOVA only answers this question Is there any difference between different groups (little variables)? Based on the variance analysis data in Table 4, the calculated F value for each of the variables of business intelligence capabilities, Data integrity, data delivery and analysis of information is equal to 563/41, 47/367, 311/21 and 315/21. Also, due to the level of significance of each of the variables, which is smaller than the level of error, ie Sig = 0/000 <0/01, it can be acknowledged That model is significant at 0.01 level. Hence, with 99% confidence, the hypothesis is zero and hypothesis 1 is confirmed in each research hypothesis. The beta coefficient means the expected change of the dependent variable, the negative beta coefficient means that with a positive standard deviation unit in x or the independent variable, it is expected to result in a change in the negative beta coefficient in Y or in the dependent variable. The beta coefficient is measured relative to the value of 1, That is, the beta coefficient one, greater than one and smaller than one, indicates, in turn, that intensity, the more severe the changes are. The beta coefficient of zero also indicates the indifference and independence of the variations. Finally, the positive sign of the beta coefficient, the consistency and the negative sign of this coefficient, show the unconsciousness of the variations of the dependent variables relative to the independent variable. The results of the beta coefficient of this study are shown in Table 7.

According to the results of test t in table 7, the coefficient of influence for each of the variables of business intelligence capabilities, data integrity, Information delivery and information analysis on brand management are positive and all of its parameters in the models are meaningful. Also, since the significance level of the parameters is smaller than the error level, the regression equation for all hypotheses is confirmed.

6. Discussion and conclusion

The purpose of this study was to investigate the role of business intelligence capabilities on brand management. First, the Kolmogrov-Smirnov test was performed. Then, considering that the results indicated the normal distribution of variables, analyzing the hypotheses of the research was used by inferential statistics. Based on the results of the hypothesis test, in the first hypothesis that there is a positive and significant effect on business intelligence capabilities on brand management, With regard to the value of the assigned coefficient) R^2 (of 0.29 at the confidence level of 0.99, this hypothesis is confirmed, this finding is consistent with the results of studies by Mir'ei et al. (2010). Fleischer & Fellow (2009). In examining the second hypothesis, the positive and significant effect of data integrity on brand management, the value of the coefficient) R^2 (Equivalent to 0.25 at a confidence level of 0.99, this finding is consistent with the studies by Habibi et al. (2015) and Bakhshandeh et al. (2016). The results of the third hypothesis, based on the positive and significant effect of information delivery on brand management, at the confidence level of 0.99, the value of the assigned coefficient (R^2) was calculated to be 24 Which suggests

confirmation of this hypothesis. This finding is consistent with the results of Tulaei et al. (2015) and Shafie et al. (2016). The results of the study of the fourth hypothesis that the information analysis has a positive and significant effect on brand management; at a confidence level of 0.99, the assigned coefficient (R^2) was 21 Which indicates confirmation of the hypothesis. This finding is in agreement with the results of the research by Zarou et al. (2011), Shafi'i et al. (1395, Beneficent and Fellow (2015). Therefore, according to the results of the research, it can be admitted that the directors of the brand to make timely and correct decisions in different conditions, including conditions of confidentiality, conflicts, uncertainties (risk), and ..., Predicting customer behavior and recognizing market demand requires useful and relevant data and facts requiring the use of business intelligence By using their tools and techniques, they can easily remove managers from a wide variety of data and data sets and provide them with the right knowledge. When informed by the business intelligence system of this correct information to the brand managers, they will gain knowledge of the competitive environment of the market. And with this knowledge, they can use marketing and advertising techniques to expand the product brand and advance towards other competitors. Because the brand manager of an organization that has the ability to make timely and relevant decisions will succeed in a competitive environment. The success and reputation of this organization can guarantee the goals of branding, including the impact on customer selection, creating an unwritten commitment to consumers on the stability and repeatability of a good experience from the use of goods or services and distinguishing goods and services from other products of competitors.

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