



Business intelligence technology success factors determine business performance within Libyan commercial businesses

^{1*} Ebrahim Ali Elburase , ² Belaid Mohammed Addokali 

Faculty of Education Bin Ghesheer Tripoli University, Tripoli, Libya

*Corresponding Author: eb.elburase@uot.edu.ly

Information of Article	ABSTRACT
<p><i>Article history:</i> Received: Dec 2022 Revised: Jan 2023 Accepted: Feb 2023 Available online: Feb 2023</p> <p><i>Keywords:</i> Business Intelligence Information Technology Innovation Decision-Making Process Libya</p>	<p>The present article has the primary goal is to determine the impact of business intelligence on the performance of commercial societies in Libya. The empirical method of linear regression was applied to the data from primary sources on a sample of 384 commercial companies. To that end, the formulated questions correspond to the questionnaire used by Ahumada and Perusquia (2016), which consists of 37 questions based on the variables established in aim's study to determine the general hypothesis. To obtain more precise deductions, different questions were introduced based on the control variables. The findings revealed that business intelligence interventions are positively associated with business performance. Market Stall's financial indicators showed statistically that there is a high level of significance in relation to the independent variable. On the other hand, age, size, and human capital are other factors that influence the optimum performance of companies.</p>

1. Introduction

Businesses all over the world have been able to get a wide range of tools for their daily work thanks to the constant development of new technologies, which has allowed them to adapt to an East-type of technological change. they have recognized the need for training in order to grasp his correct operation and reap the benefits of this type of tool (Wang, 2022). One of the tools that they currently use is business intelligence, also known as the analysis of big data, which allows managers to process information and create specific data that contributes to the solution or improvement of business processes (Uslu, 2022).

According to (Upadhyay et al., 2022), the generally known business intelligence, "BI," was proposed by Hans Peter Luhn in 1958, who defined it as the maximum application of knowledge in business activities with the goal of reaching every aspect of the projected goal. As a result, various applications began to be created to improve business productivity beginning in the 1970s. Furthermore, as time has passed and technology has advanced, business intelligence has gained a certain level of recognition among large corporations, owing to the fact that it denotes high work capacity. Even though they have a big impact on current events, they also have a big impact on small and medium-sized businesses, which want to improve the prosecution of their data in order to get up-to-date information about the reality of the market. This becomes a strategy of notoriety and credibility, until the point of offer, which means right away to fix any kind of problem, whether it's short-term or long-term (Tze San et al., 2022).

In relation to the former, that business intelligence is not only framed in computer systems, since it has allowed the diversification of knowledge management to raise the efficiency levels of a company. According to (Tsuchimoto & Kajikawa, 2022), "BI" has been studied by many authors as high-capacity software that helps data processing, where high management supports its decisions, but there is no more information from the point of view where "BI" encompasses a set of several items to work correctly, as the human capital required to analyze and understand the information that generates, the innovation processes that arise from the business.

Yang and Lin (2022) say that the "performance business" identifies a set of quantitative and qualitative results that the company has had over a certain amount of time. For example, it refers to a qualitative result when the organization is subjected to an evaluation based on some indicators, which could be the opinions of your customers, employees, providers, and others. In Change focuses on evaluating Bliss Company's profitability, which includes a progressive analysis of sales revenue and profits when it comes to quantitative results. According to studies and approaches taken

by various authors, performance business is a model comprised of four fundamental variables: the mentioned internal processes, human rights relationships, system rationality, and system openness. So, the purpose of the opportunities. One of the characteristics of intelligence research is the determination of the influence of business intelligence on the performance of various commercial entities; for this, it will identify the number of commercial companies operating in the city of Tripoli, to later proceed to show if there is an association relationship between business intelligence and business performance, using a regression linear empiric method.

2. Theoretical framework

2.1 Intelligence of business technology

Business technology refers to the use of technology in the operations and management of a business. This can include software and hardware tools for tasks such as data analysis, automation, and customer relationship management. Intelligence in business technology refers to the ability of these tools to analyze data and make decisions or predictions to improve the efficiency and effectiveness of business operations. Examples of intelligent business technology include machine learning algorithms, natural language processing, and computer vision (Yang & Lin, 2022).

Business Intelligence (BI) emerged as a field in the late 1950s and early 1960s, with the advent of computer technology and the growing amount of data being generated by businesses. Early BI systems were focused on providing managers with the ability to access and analyze data stored in mainframe systems. As technology advanced, BI systems evolved to include more advanced features such as data visualization, data mining, and predictive analytics.

In the 1990s, the widespread adoption of personal computers and the development of new software tools made BI more accessible to a wider range of organizations. This led to a growing number of companies using BI to gain insights and make data-driven decisions (Wang, 2022). In the 2000s, the emergence of big data, cloud computing, and advanced analytics technologies led to a further expansion of BI capabilities. Today, many organizations use BI to analyze large and complex data sets, and to gain insights that can help them make strategic decisions and improve their operations. Overall, the emergence of BI is a continuous process, as the technology and data landscape are constantly evolving, and new tools and techniques are being developed to help organizations gain insights from data.

2.2 Information technology

Information Technology (IT) is the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data. It encompasses a wide range of technologies and disciplines such as hardware, software, networking, database management, and cybersecurity. IT is used to support a wide range of business and organizational functions, such as data management, communication, automation, and decision-making (Uslu, 2022). IT plays a critical role in today's business and society, as it enables organizations to process, store, and analyze large amounts of data, and to connect with customers, partners, and employees in new and innovative ways. IT also enables organizations to automate many business processes, which can help improve efficiency and reduce costs (Upadhyay et al., 2022). The field of IT is constantly evolving, with new technologies and trends emerging all the time. Some of the key trends in IT today include cloud computing, big data, artificial intelligence, machine learning, and the Internet of Things. Overall, IT is a critical function for organizations of all sizes, and it is essential for success in today's digital economy. The Information Technology (IT) revolution refers to the rapid advancement and widespread adoption of computer and communication technologies that have transformed the way we live and work. The IT revolution has had a profound impact on society and the economy, enabling the digitalization of information, automation of processes, and the creation of new industries.

The IT revolution can be traced back to the development of the first electronic computers in the 1940s and 1950s, which laid the foundation for the modern information age (Tze San et al., 2022). The introduction of the personal computer in the 1970s and 1980s, as well as the widespread adoption of the Internet in the 1990s, further accelerated the IT revolution by making technology more accessible and easier to use for individuals and businesses. The IT revolution has led to a number of significant changes in society and the economy, including:

- The growth of the digital economy, which has created new industries and business models based on the collection, analysis, and use of data.
- The rise of e-commerce, which has transformed the way we shop and conduct business.

- The increasing importance of data and analytics in decision-making, which has led to the development of new technologies such as big data and artificial intelligence.
- The increased connectivity and global reach of the Internet, which has enabled the sharing of information and ideas on a scale never before possible.
- The automation of many tasks and processes, which has led to increased efficiency and productivity.

Overall, the IT revolution has had a profound impact on society and the economy, and it continues to shape the way we live and work in the digital age.

2.3 Theoretical perspectives Intelligence of business

According to Tsuchimoto and Kajikawa (2022), business intelligence is oriented toward the development and implementation of information technologies that are required for data monitoring and transformation into knowledge. According to (Shiau et al., 2022), business intelligence works as a resource for the elaboration of strategic plans because its base application allows for the identification of key points that lead to the creation of competitiveness-related strategies.

Similarly, the authors (Okunlaya et al., 2022; Qaffas et al., 2022; Sanil et al., 2022) believe that "BI" is a significant contribution to the management and compliance of business objectives, regardless of the size of the company. (McBreen et al., 2022a) demonstrate that his significance extends far beyond the processing of thousands of data points and that he contributes to the identification of threats and opportunities around him. For example, in the marketing department, we generate information to define the target audience and their needs; similarly, in the production or purchase and sale departments, we agree to analyze and identify the level of performance of the processes in terms of operational costs and business impact. The credibility of information and innovation adds economic security to the company. A body that is able to solve various problems, internal and external, that may arise under the same vision Freelance in data analysis and information extraction clear statements in terms of sales, accounts receivable, accounts payable, inventories, purchases, and finance Not to mention, further, that you grant the company a modern sense of empowerment with strategies dependent on the new technologies, where processing data is done on platforms with a high level of reliability, helping to better manage information and carry out the process of decision-making.

Ultimately, business intelligence involves not only different systems for analyzing data, but also a much broader field. In agreement with (McBreen et al., 2022b), "business intelligence" refers to a set of operations in a business that work efficiently thanks to system information, innovation processes, and decision-making. The systems of information they are acquaintances. What computer systems have been developed with the purpose of managing and encompassing information relevant to every decision, attached to the different processes carried out by organizations (Lateef & Keikhosrokiani, 2022)? The use of correct information systems allows for a clear vision of the functions to be performed in the organization and of the requirements present, facilitating a large field of action in terms of compliance with established strategic plans (Kapetaneas & Kitsios, 2022).

As a result, the authors (Ji & Tia, 2022) mention some platforms, such as Tableau, which allows for better data analysis through attractive graphics; Qlik View, which provides a global view of the information; and Power BI, which provides ease of use to process any type of data while also being low cost. Similarly, (Gigante & Zago, 2022) propose another technology called BI In-Memory, whose main feature is its high performance speed in analyzing and processing data in a very short time. Innovation is framed in the new strategies that a company implements in order to differentiate itself from its competition, capture the elderly public, and hence increase their income, thus searching for the growth of a business. Simultaneously, (Fonseka et al., 2022) believes that, in general, innovation is the improvement of business processes brought about by new ideas or proposals that are tailored to improve the organization's functioning.

There would be that say too, that the innovation this related directly withthe view business a n d the capital human,the know towards where we want go, possess theknowledge and skills necessary to create,will facilitate the process of innovation, achieving grant products either services of quality, attractive and affordable prices without have that to worry for the tall costs thatcome to be generated, since they will know how to control it andmanage them efficiently. With base in (Cheng et al., 2022) understands that the process of Decision making is the selection among several alternatives, that happen in view of variousproblems of minor either elderly magnitude, for therefore it is also mentioned that the directive of organizations need to have available a big volume of information that them allowact in key ways to resolve any type of situation, well Commonly are situations arise of unexpected, a n d the course

that they can take the same generates a degree of risk and uncertainty, therefore it is very It is important to have accurate information immediately, in order to have a management more productive.

Similarly, (Carvalho et al., 2022), mention that the analysis of the information that generate the systems of intelligence of business, is considered a fundamental factor that achieves contribute to the developing and implementation of strategies, which are oriented to different areas of the company, further, whose knowledge it serves of support for to the taking of decisions; for other part, is important to mention that, generally carry out processing and transformation of a large amount of data, without the implementation of suitable tools, result a process of elderly difficulty, ineffective and inefficient, it which might to affect directly the company productivity.

2.3.1 Business intelligence and finance

Since the transcendental advance of the new technologies, business intelligence have a Market Stall remarkable in view of the ambit economic of a company, becoming a method for its lifting. From there, arises the meaning of the word finance, being the source of income that helps cover everything type of needs that present in a organization. Under East concept, (Binzafrah & Taleedi, 2022) state that finance is the best form in that a company either entity may obtain money, always seeking to optimize the common welfare.

Of is way, the business intelligence in relation to finances, form a system key and competitive, since compared to companies or organizations that do not implement this type of business model, will not have the themselves results. There are that point, that the finance that emerges in the business environment. They are those that Already they have been evaluated of form staff, to later reach the level business; that is to say, analyze when, where and how to invest, with the sole purpose of generating a growth potential in the market, going since the notability until the credibility in their products.

Another thing to keep in mind account, are the strategies used around the company-consumer, generating a circuit of production of goods, which seeks to respond to the needs of its consumers; from there the worth of the intelligence of business, considered What a method of system intelligent (Binzafrah & Taleedi, 2022). It is necessary to clarify that any type of strategy used around intelligence of business, is totally effective, since its application provides a without number of opportunities for the company, which implies real benefits before society, for example, to identify not only areas where exist elderly number of sales, otherwise also know which are the squares, or what products They are the more sold and later to post that product in different platforms to gain identity in the market.

2.3.2 Model Skandia applied to the BI

Starting from the idea of finance in relationship a the intelligence of business, exists a prominent model in the business world, where authors What (Baycur et al., 2022) indicate in their investigations that the method Skandia, part of the value of the company before the assets intangibles, it that of note it Next: in the historical data of the company, there is the part financial, here the initial budget intervenes of the company Then there are, the current data, that They are the customers, processes and means humans; for latest, the data futures, where talks about innovation and development, such is the case, that to the decision makers will be much more easy to get decision making with accurate data and with greater credibility.

2.3.3 Advantages to the Business with BI

It is important to highlight some advantages that companies have with the use of *BI*, among they we have: The taking of decisions in the company will be streamlined, particularly for the methods that have used to the improvement of is. The staff it remains within the vision, that is, they work in a same to feel, a n d with a same address, which is to immerse yourself in the new trends that ICTs offer. During work time, the data will be accurate and detailed as give the responsible personnel. Finally emphasizes that all information will be protected, with a emphasis confidential for the customers.

2.3.4 Disadvantages to the Business without BI

The disadvantages that have the Business to thenot use *BI* are the following: The informationthat require the customers, will be late. The staffwill have difficulty solving problems are presented and above all they will not be able to specify information, in addition to the inconveniences in the preparation of complete reports to the customers.

2.3.5 Performance business

From the point of view of (Arora & Sharma, 2022) explain that business performance is the result of the achievements achieved, which is granted by the administrative areas thatwork together to achieve goals business; further mention that too recognize What the ability operational that hasthe company, which has the purpose of satisfying the expectations of the owner or proprietor. In turn, (Ünal & Kılınç, 2021) determineto the performance business What the abilityto get a good performance operationaland financial, that may to be measured a thorough of several indicators, What the use oftechnologies, sales revenue, development of knowledge and quantity of production. To the same weather, (Talaoui & Kohtamäki, 2021) consider that the performance businessmay reflect when the organization does asuitable use of the ICT's and of others technologieswhat some system of quality, the which achieveoptimize their processes and increase their levelsof performance. For other side, (Paesano, 2021) emphasize in that the performance business this framed a the function aimof an organization, that is, they all pursue a same goal, What the maximization of its benefits, however not all can achieve, Already that exist factors that differentiateone company with another, such as the size, age, geographic location and its phase economic cycle, which means that they will have low or high performance in the market.

2.4 Control Variables

Control variables are proposed by the researcher, the same one who maintains them under control to have a Balance in the results of the experiment, that is, its use will addressed a get results clear and accurate, that show the behaviour that taking the variable dependent when is influenced by another (Paesano, 2021). Thus, among the control variables we have the following: Age of the company that corresponds to the years of operation that have in the market; the size of the company thatreference a the amount total of employees; capitalhuman general that concerns mainly ofthe education and ability that have employee;the specific human capital that corresponds to the training provided by the company to each one of its members for their own benefit; and finally the marketing that refers to thesales strategies.

3. Methodology

The current research that is based on a regression method with linear empirical evidence, ostensibly analyzing the various variables under study. It represents quantitative data describing the correct form of the findings. Therefore, it used a survey; the questionnaire carried out had the purpose of demonstrating the existence or not of a positive association between business intelligence and the performance of businesses that possess the commercial societies that operate in the city of Tripoli, Libya. According to Sekaran & Bougie (2016), the quantitative method refers to a set of sequential and evidentiary processes that use a specific scheme without skipping any stages. To that end, quantitative research should delimit the idea and establish hypotheses and variables to answer the research questions. In effect, it used the program STATA for his data processing and analysis.

Data and characteristics of the sample: The population that has been selected as the object of study consists of a total of 854 businesses in the commercial sector, which includes large, median, and small businesses according to his classification, all belonging to the city of Tripoli, province. It is aware that it has chosen one type of company because, according to a review of the literature produced during the research, several authors stated that these companies handle a large number of transactions daily that generate a large amount of data that must be processed quickly and coherently by BI systems. The Present research used a sample of 384 Business commercial Come in the large, medium and small. Then, presents the sample calculation:

Where:

n = sample size

z = worth normal standard (level of confidence)

p = population proportion and = margin of error

To calculate, first we identify the following values:

$n = ?$

$z = 1.96$

$p = 0.5$

$E = 5\%$

The research instrument applied was the survey, the same one that was based on a instrument created and used for the authorssmoked and Perusquia (2016), the questionnaire consisted of 37 questions according to the three variables that have been set to check the general hypothesis, that is, with the purpose of two size the variable Independent "intelligence of business" performed questions attached to its three dimensions, which are: systems of information, innovation and decision-making process of decisions. Similarly, to measure the dependent variable "business performance" established questions based in their indicators what the utility and income for sales; Finally, with the purpose of generating results reliable embodied questions to measure each of the control variables.

In order to get results clear and with the aim of reach 384 responses, depending on the sample size, decided to send the surveys by mail email to the 854 commercial companies that inhabit in the town of Tripoli, without embargo, the rate of reply it was of 43.56% it that equal to 372 companies, therefore this means that not reached a comply the size of the sample, For this reason, having that number of surveys answered, a confidence level was established of 94.64%.

Description of variables: They are displayed in the Table one the description clear of the variables dependent, Independent and of control that were necessary to make the analysis using the linear regression model. Variable dependent: Performance business. A through of total of sales and profits for the last 2 years the level of significance was determined in relation to business intelligence and the variables of control. Independent variable: Intelligence of business. To achieve measure the established the following three indicators: First, the information systems, then innovation and for latest the process of taking of decisions, every one of them was a fundamental part of achieving identify Yeah a organization has intelligence of business, for such reason allowed calculate the level that each of them has with respect to this variable.

Variables of control: Necessary to obtain results more precise upon the relationship cause-effect between the dependent variables and independent. Among the control variables that were established is it so the following: Age of the company, size of the company, capital human general, capital human specific and marketing.

Age has been considered as a variable of control why define the antiquity either the years that has a company in the market, and according to Guercio et al. (2020) based on several investigations carried out, this variable influences notably in the diversification and performance of the organizations. In change, the size established of agreement with the number total of employees that has a company, since the position of Velez et al. (2019) indicate that the Business with a elderly size have tall odds of to collaborate with others institutions compared to one of smaller size, of course, that he attributes to a superior Business development.

According to Tovar (2017) the capital human is a primary factor for any business no matter how small, likewise mentions that a theory was established where ranks to the capital human What general and specific. In addition, both help to generate competitive advantages for companies, thanks that exists come in the employees an elderly innovation capacity (Fonseca et al., 2019). The capital human general this related to the good education they have the people, is say those that have greater knowledge that others, skills cognitive, a high ability to sort out issue, further of to be disciplined and very creative (Cooper et al., 1994). According to Lund (2006) the employees who have an excellent education they are able of to toast the Business greater opportunities of growth, Already that his high intellect them It allows to create new knowledge and that form boost the innovation, to enhance growth of the organizations.

Therefore, the overall human capital plays an important role in the decision-making process decisions, also to analyze situations external related to the international market, creating new strategies to deal any problem that arises (Cerrato and Piva, 2012; Stucky, 2016). For so much, a thorough of the poll applied He met the number of employees that possess title academic, as it demonstrates the performance of the employees to achieve business goals.

Regarding the specific human capital, does reference the skills and knowledge specific that they are applied directly in a Market Stall of worked in particular (Gimeno et al., 1997). On the other hand, it is mentioned that the specific human

capital can be obtained with the weather through the accumulation of experiences granted through internships or given the case according to the trainings that offer every company with the purpose of enhance his learning and keep a suitable update in topics relevant according to the environment in the that find (Gibbons and Waldmann, 2004).

Even though the capital human specific have more limitations and be viewed What one of the causing of under performance of the organizations, the constants programs of trainings help a that the employees improve their skills and knowledge, contributing too to the performance business, well too They are able of cope with internal or external situations without greater difficulties (Lopez-Rodriguez et to the., 2018). Therefore, information was obtained of the total amount that each company invested in trainings to their employees in the year 2020.

Therefore, the following were formulated hypothesis:

H1: The business intelligence associates positively with business performance.

H1_a: The business intelligence positively associated with profits trading companies.

H1_b: The business intelligence positively associated with sales revenue of commercial companies.

Of agreement with the variables established, has used the model of regression linear why facilitates the answer about the behavior of the variables dependent (Y) and Independent (x), since it establishes estimates according to the impact that causes one variable over another, achieving demonstrate the level of significance or relationship that exists between the two (García et al., 2019). So, the model was based together with the method of least squares to understand the values generated for the variable, further of meet the relationship that exists Come in the points (Hernández et al., 2017).

4. Data Analysis and Results

The results obtained from the model of regression linear to decide the influence of business intelligence in performance business are presented in Table 2 and 3. For other side, in the Annexes establish the array of correlation and of statistics descriptive (Table A1 and A2). So, it supports the general hypothesis (H1) regarding the association between business intelligence variables and business performance. Business intelligence was measured through their three dimensions, in East case, in it that respects a the first dimension, the Business commercial that they answered the poll us indicated that now drive some information systems that facilitate your operations. Regarding the dimension of innovation, it was identified that companies are directed to the creation of strategies, to the incorporation of new products, destination of budget to new Projects, etc., reflecting that there is a process of innovation constant. In addition, in the dimension of the process of taking of decisions, verified that use the information that get of the systems of information to solve different situations business. On the other hand, business performance it was measured a thorough of two indicators that they are: sales revenue and profits, both correspond to the years 2019 and 2020. Both the income as the profits indicated by each company reflected a significant decrease of money to some in the year 2020, it which justify for the pandemic of Covid-19, that was presented in that year, however, others have had an increase in both indicators, which is related to the adaptation of the business intelligence.

In the first hypothesis (H1_a), it was achieved show that business intelligence associates of way positive and is highly significant ($p \leq 0.01$) with the utilities that they have generated by companies in the commercial sector in the years 2019 and 2020 (Table 2). Of same way, Based on the results obtained, it is supported the second hypothesis (H1_b), since it is proved that business intelligence is associated in a way positive and highly significant ($p \leq 0.00$) with the sales income they have obtained these companies in the last two years (Table 3). The affirmation of both hypotheses reflects that the application of business intelligence in companies in the commercial sector have achieved the optimization of their processes, to provide them with the tools necessary to innovate, further guide them a drink good decisions founded in the information that generate the different programs. Among the control variables used some reflected a positive impact on the dependent variable, it was observed that both in the indicators of utilities and sales, the variable of control with high significance ($p \leq 0.00$) it was the age of the company, this means that at older than a company has in the market your business performance will have a highest level. On the other hand, the size of the company presents significant levels, which represents a minor influence to improve the performance business (Table 1 and 2).

In it that respects to the capital humangeneral, the relationship with the indicator of utilitiesdemonstrates a low level of significance ($p \leq 0.091$), while, in sales, this variablecontrol is highly significant ($p \leq 0.004$),it which interprets that the capital human generally achieves sales goals, increasing the competitiveness of the company.Without embargo, the capital human specific inthe last two years has not had a greater stake in the growth of the company;In the same way, marketing strategies do not they have been suitable a the needs of thecustomers, for hence, his level of significance so muchin utilities ($p \leq 0.233$) and sales ($p \leq 0.323$),is null, since they have not contributed to the performance of several Business commercial (Table 1 and 2).

The use of control variables in the present investigation was necessary so thatexist a bias in the results, is say, that the association of the two variables has been trustworthy,since other factors were taken into account modified the behavior of the variables,showing that there is indeed a relationship highly significant between the business intelligence and business performance.

Table 2

Results of analysis of Regression Linear(Variable dependent=Utility)

Utility	Coefficient	t	p>(t)
Business intelligence	6802.983***	3.37	0.001
Age	8656.839***	4.80	0.000
Size	815.2039*	1.74	0.083
overall human capital	95301.91*	1.70	0.091
Human capital	85.99122	0.40	0.686
Marketing	-3.559667	-1.19	0.233
Constant	-25486.77	-0.48	0.631
Indices F(6, 365) = 16.70 Prob > F = 0.0000 R-squared = 0.2154 Adj R-squared = 0.2025 Number of obs = 372			
Note: Se consider significant al $p \leq 0.10$ (*); se consider significant al $p \leq 0.05$ (**); se consider significantal $p \leq 0.01$ (***)			

Overall human capital	857136.8***	2.89	0.004
Human capital	-1730.552	-1.54	0.124

Specific Marketing	-15.57439	-0.99	0.323
Constant	-486767.4	-1.74	0.083
F(6, 365) = 23.59 Prob > F = 0.0000 R-squared = 0.2794 Adj R-squared = 0.2676 Number of obs = 372			
Note: consider significant at $p \leq 0.10$ (*); se consider significant at $p \leq 0.05$ (**); se consider significant at $p \leq 0.01$ (***)			

Table 3

Results of analysis of Regression Linear(Variable dependent=Sales)

Sales	Coefficient	t	p>(t)
Business intelligence	44590.38***	4.18	0.000
Age	52016.98***	5.46	0.000
Size	4914.377**	1.98	0.048

Discussion

In the present, the Business looking for have a competitiveness sustainable in the market, which is why, in contrast to the performance of companies in the face of intelligence of business, exists something fundamental in the growth of the same, which is, the sum of knowledge plus the experiences acquired during working time. However, you have to rescue that it is the strategic system, what it allows a company that come back visible in view of the market and a his time increase their level economical, thus achieving advantages competitive and dynamic environment.

Therefore, consolidating the hypotheses raised to the beginning of is research (H1, H1a and H1b) under the concept of Cuevas- Vargas and Parga-Montoya (2018), it is demonstrated that the performance business, this bound to the use Right of the ICT's, Market Stall that, the use suitable of new technologies creates an anchor point for the establishment of the company. So similar, quoting a Melgarejo and simon elorz (2019) stands out, the done of that, everything business, must have a balance under the systems of information that generate a worth aggregate in the sense technical and administrative, where the mission and view convert in tools of prediction and implementation to the benefit of the company.

Indeed, for authors such as Núñez et to the. (2020) the business intelligence is Whata bridge that joins the world of the data with the business, it which check in is research carried out empirically, since through of the results obtained of note that the business performance, is given based on how much information have their collaborators, Sosame What is it so driving bliss informational what is it so doing to achieve that all that information transform in a system intelligent, that generate not only a base of data trustworthy but rather, that I made decisions that channel strategic marketing to give solution a problems of short and long term.

In opposed with it saying previously, for Baquero and Sócrates (2018) the fact that a company has *BI*, it means mostly costs in the bageconomics of the company, for example: buylicenses for software, entails a that the decision-makers seek in themselves to prepare themselves empirical, and there is no dependence on the part from the provider. That is one of the reasons whythat a part of the population of SMEs decides do it for their own media. In replyto the ideology proposed by the author, those SMEs, that not invest in a system intelligent,not will be able adapt easily the new generation technological, provoking changes mitigating in its business notoriety.

Finally, regarding the variables of control, the results denote that, the age of thecompany positively influences performancebusiness, to be considered as one of the main factors enhancers of innovative behavior (Peraza et al., 2016).Also, the authors Franco-Angel and Urban (2016) state in their study that age or age of the company positively influences in much of the business dynamism. For On the other hand, it was also observed that the size of the company turned out to be irrelevant, however, in opposed an it mentioned Shepherd etto the. (2019) express that the business size generate an impact positive in the various processes productive of the organization.

The general human capital, keeps a relationship positive and statistically significantin the productivity of the companies studied, well, as Serrano (2016) mentions, this typeof human capital creates potential conditions that generates competitive advantages. Secondly,the results upon the capital human specificreflect that the training of personnel has notpositively influenced revenue and utilities that they had the Business in the twoIn recent years, however, Mejía-Giraldo et al. (2013) express that the investment in the trainingand education of capital human recognize Whatbeneficial for companies and their growth economic, further that, in various African countries, the level of education relative to the empowerment of human resources has been the basis for your economic development.

5. Conclusion

In a competitive business environment, the adaptation plays a role fundamental,well not to get the pair with the new technologies,could lead to obsolescence, where the survival of the Business may be affected. Today the systems information what the business intelligence they have converted in items keys to run processes vital of the Business of way efficient, Come in them, the processes ofcontrol, operation and taking decisions. A the implementation of the business intelligence you attributes a variety of Benefits, as the generation of competitive advantage with approach to knowledge management, support for different business activities and strategies, support for quick solutions to emerging situations, based on informationreal and confiable, among others. In how much the results of is research is convenient to mention that these possess coherence with our initial expectations. Well, by using the linear regression model it was possible to demonstrate that the business intelligence intervenes ofway positive in the performance businessof the Business of sector commercial, Market Stallthat, the analysis accomplished a their indicators financiers statistically showed that there is a high level of significance in relation to the independent variable. On the other hand, the use of the control variables, showed that there are other factors that influence growthperformance of each company, among them are itsage, size and general human capital.

For consequent, since a focustheoretical and of management these results achieve highlight the importance of the business intelligence in business performance, position that East search identify a thorough of their dimensions such as promoting activities and business processes, in turn maximize the economic benefits. Furthermore, this study iscan be situated on a theoretical level in relation tothe literature of developing business to the put ofmanifest that you practice them with the business intelligence allows companies to generate moreknowledge upon the situation real in the that are find, andwith base a is informationdecision making is more efficient for the obtaining better results.

Since the point of sight managerial, themanagers and owners of each of the companies must to be conscious of the importance that frames the implementation of the business intelligence to enhance the performance business;since today *BI* has become in a tool indispensable to the mediumof the different processes a level tactical,strategic and operational, which has allowedcompanies manage to face possiblecompetitive market threats and are achieved move towards business development.

Regard the future researchthat may develop of East worked, can stand out the following: First, the use of the analysis performed by each dimension that conforms the business intelligence tothe aim of obtain a study more accurate and detailed. Second, based on the present research is possible that expand thestudy on the influence of intelligence

business in business performance, in areas more specific to the company such as the level strategic level, tactical level and operational level.

References

- Arora, M., & Sharma, R. L. (2022). Artificial intelligence and big data: ontological and communicative perspectives in multi-sectoral scenarios of modern businesses. *foresight, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/FS-10-2021-0216>
- Baycur, G., Delen, E., & Kayışkan, D. (2022). Digital Conflicts in Marketing and Sales. In F. Özsungur (Ed.), *Conflict Management in Digital Business* (pp. 43-61). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-80262-773-220221004>
- Binzafrah, F., & Taleedi, F. (2022). The effect of business intelligence practices on job satisfaction in the Saudi Electricity Company in the Asir Region. *Journal of Money and Business*, 2(1), 107-131. <https://doi.org/10.1108/JMB-03-2022-0011>
- Carvalho, D., Picoto, W., & Busch, P. (2022). Organizational experience of social media: impacts on competitive intelligence. *VINE Journal of Information and Knowledge Management Systems*, 52(2), 161-183. <https://doi.org/10.1108/VJKMS-05-2019-0067>
- Cheng, X., Bao, Y., Zarifis, A., Gong, W., & Mou, J. (2022). Exploring consumers' response to text-based chatbots in e-commerce: the moderating role of task complexity and chatbot disclosure. *Internet Research*, 32(2), 496-517. <https://doi.org/10.1108/INTR-08-2020-0460>
- Fonseka, K., Jaharadak, A. A., & Raman, M. (2022). Impact of E-commerce adoption on business performance of SMEs in Sri Lanka; moderating role of artificial intelligence. *International Journal of Social Economics*, 49(10), 1518-1531. <https://doi.org/10.1108/IJSE-12-2021-0752>
- Gigante, G., & Zago, A. (2022). DARQ technologies in the financial sector: artificial intelligence applications in personalized banking. *Qualitative Research in Financial Markets, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/QRFM-02-2021-0025>
- Ji, F., & Tia, A. (2022). The effect of blockchain on business intelligence efficiency of banks. *Kybernetes*, 51(8), 2652-2668. <https://doi.org/10.1108/K-10-2020-0668>
- Kapetaneas, N., & Kitsios, F. (2022, 2022//). Digital Transformation Approach to Public Hospitals Environment: Technology Acceptance Model for Business Intelligence Applications. (Ed.),^(Eds.). Information Systems, Cham.
- Lateef, M., & Keikhosrokiani, P. (2022). Predicting Critical Success Factors of Business Intelligence Implementation for Improving SMEs' Performances: a Case Study of Lagos State, Nigeria. *Journal of the Knowledge Economy*. <https://doi.org/10.1007/s13132-022-00961-8>
- McBreen, B., Silson, J., & Bedford, D. (2022a). Business Stories of Intelligent Organizations (*Organizational Intelligence and Knowledge Analytics* (pp. 141-164). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-80262-177-820211013>
- McBreen, B., Silson, J., & Bedford, D. (2022b). Capacity Building for Organizational Intelligence and Analytics (*Organizational Intelligence and Knowledge Analytics* (pp. 115-123). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-80262-177-820211009>
- Okunlaya, R. O., Syed Abdullah, N., & Alias, R. A. (2022). Artificial intelligence (AI) library services innovative conceptual framework for the digital transformation of university education. *Library Hi Tech, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/LHT-07-2021-0242>
- Paesano, A. (2021). Artificial intelligence and creative activities inside organizational behavior. *International Journal of Organizational Analysis, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/IJOA-09-2020-2421>
- Qaffas, A. A., Ilmudeen, A., Almazmomi, N. K., & Alharbi, I. M. (2022). The impact of big data analytics talent capability on business intelligence infrastructure to achieve firm performance. *foresight, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/FS-01-2021-0002>
- Sanil, H. S., Singh, D., Raj, K. B., Choubey, S., Bhasin, N. K. K., Yadav, R., & Gulati, K. (2022). Role of machine learning in changing social and business eco-system – a qualitative study to explore the factors contributing to competitive advantage during COVID pandemic. *World Journal of Engineering*, 19(2), 238-243. <https://doi.org/10.1108/WJE-06-2021-0357>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Shiau, W.-L., Chen, H., Wang, Z., & Dwivedi, Y. K. (2022). Exploring core knowledge in business intelligence research. *Internet Research, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/INTR-04-2021-0231>

- Stjepić, A.-M., Pejić Bach, M., & Bosilj Vukšić, V. (2021). Exploring Risks in the Adoption of Business Intelligence in SMEs Using the TOE Framework. *Journal of Risk and Financial Management*, 14(2). <https://doi.org/10.3390/jrfm14020058>
- Talaoui, Y., & Kohtamäki, M. (2021). 35 years of research on business intelligence process: a synthesis of a fragmented literature. *Management Research Review*, 44(5), 677-717. <https://doi.org/10.1108/MRR-07-2020-0386>
- Tsuchimoto, I., & Kajikawa, Y. (2022). Competitive intelligence practices in Japanese companies: multicase studies. *Aslib Journal of Information Management*, 74(4), 631-649. <https://doi.org/10.1108/AJIM-05-2021-0133>
- Tze San, O., Latif, B., & Di Vaio, A. (2022). GEO and sustainable performance: the moderating role of GTD and environmental consciousness. *Journal of Intellectual Capital*, 23(7), 38-67. <https://doi.org/10.1108/JIC-10-2021-0290>
- Ünal, A., & Kılınc, İ. (2021). The feasibility of artificial intelligence performing as CEO: the vizier-shah theory. *foresight*, 23(6), 698-723. <https://doi.org/10.1108/FS-02-2021-0048>
- Upadhyay, N., Upadhyay, S., Al-Debei, M. M., Baabdullah, A. M., & Dwivedi, Y. K. (2022). The influence of digital entrepreneurship and entrepreneurial orientation on intention of family businesses to adopt artificial intelligence: examining the mediating role of business innovativeness. *International Journal of Entrepreneurial Behavior & Research*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/IJEER-02-2022-0154>
- Uslu, H. (2022). The role of intellectual capital in financial development: evidence from the banking sector of Turkey. *Competitiveness Review: An International Business Journal*, 32(2), 230-249. <https://doi.org/10.1108/CR-06-2020-0084>
- Wang, P. (2022). A study on the intellectual capital management over cloud computing using analytic hierarchy process and partial least squares. *Kybernetes*, 51(6), 2089-2108. <https://doi.org/10.1108/K-03-2021-0241>
- Yang, W., & Lin, Y. (2022). Research on the interactive operations research model of e-commerce tourism resources business based on big data and circular economy concept. *Journal of Enterprise Information Management*, 35(4/5), 1348-1373. <https://doi.org/10.1108/JEIM-12-2020-0520>