

THE IMPACT OF BUSINESS INTELLIGENCE AND BUSINESS PROCESS AGILITY ON ACHIEVING COMPETITIVE ADVANTAGE

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ABSTRACT

Modern businesses face new challenges as a result of the shifting environments in which they conduct organizational operations. These include the requirement for value creation in partnership with customers, preparedness for change, and the capacity to act quickly in response to consumer needs and to gain competitive advantage. Agile companies are seen as a new paradigm for businesses and are defined by these characteristics. This research aimed to seek the signified role of business intelligence and business process agility by attempting to create a conceptual model in order to dig more knowledge in this concept a literature based research carried to contribute in literature and academic source.

Keywords: *Business Intelligence, Business Process Agility, Competitive Advantage.*

1. INREODUCTION

A business must act quickly to maintain its competitive advantage in order to meet client demands in a market that is continuously shifting. In order to innovate in the manufacturing process and information and communication technologies, businesses must restructure their businesses and develop new marketing strategies [1], [2]. There are various characteristics of an agile

manufacturing process are: ensuring the manufacturing process is quick and flexible; producing on demand as opposed to the conventional manufacturing method, which involves producing and storing vast amounts of commodities; addressing the individual demands of clients as opposed to mass producing products for the "typical" consumer [3], [4]. Whereas, the significance of business intelligence to gain competitive advantage cannot be ignored. As per investigation of dashboards for business intelligence offer rapid access and turn unstructured data into meaningful, aesthetically pleasing representations [5]. They provide the clear display of organized and customized data for all employees [6]. In order to assess the impact of business intelligence and business process agility to gain competitive advantage a literature based research is conducted that will highlight contemporary findings for the academic source and business practitioners.

2. THEORETICAL FRAMEWORK

2.1. Business Intelligence

The traditional business methodologies have been changing rapidly and thus organizations are rapidly advancing towards technological advancements and they are accepting other means of competitive edges [7], [8]. With the arrival of digitalization and other automation processes, the shift in business process management and business intelligence has been seen and that's why businesses have turned themselves to a new direction [9]–[12]. This literature review will explain the relation between business intelligence, agile technology and the competitive advantage of the organizations [13], [14].

[15] explained the significance of having business intelligence to improve serviceability in the organization [16]–[18]. As it has become apparent for the organizations to retain their market shares, the only feasible solution is to have a concrete competitive edge [19], [20]. Data analysis and interpretation is the need of time because the amount of data which the companies are using is enormous [21], [22]. As the digitalization has taken over the world by a storm, companies are relying heavily on the data sets [23]–[25]. In the process of business intelligence, companies have to understand the data sets and patterns and thus they can make the meaningful decisions then [26]–[28]. As the times are changing, companies are shifting their focus on digital presence and thus a lot of companies exist digitally [29]–[31]. Take the example of Uber [32], [33]. It's an internet ride hailing platform which allows people to call a cab at their doorstep. Now Uber does

not own any cars or employees but it simply exists digitally and that's why understanding the data sets is very important for Uber [34]. Furthermore, consider the example of Amazon [35]. The company is the biggest online retailer in the world and thus all of its operations exist digitally. People just have to sit at homes and make the online orders and the company delivers the products at homes [36]–[38]. Or consider online banking. After the outbreak of corona virus around the globe, people have chosen online banking over physical banking and that's why the data sets in the banking industry has taken a huge importance because bankers have to understand the data and make the meaningful decisions [39], [40].

2.2. Business Intelligence and Business Process Agility

[41] evaluated Business process agility helps organizations to attain competitive advantage. The business markets are changing and that's why companies have been adopting new measures of businesses and technological advancements [42], [43]. It has become important for companies to adopt the new processes and to eliminate the older ones [44]. This is known as business process agility because the organization has to gel itself according to the changes in the internal and external environment. Consider the example of local traditional banking systems and practices [45], [46]. As the times changed, the banks had to shift their services to digital platforms because they knew the likes and practices of people were changing and that's why the banks had to adopt the new technological advancements [47]. This enabled the banks to become one of the top services providers in the market [48]–[50]. Or consider the example of ride hailing services [51], [52]. The companies realized that since the movements of people were confined to their homes, they did not want to travel to roads and find a cab. For this reason, the ride hailing services found a pain point and thus they shifted their trends [53]–[55]. But all of this would not have been possible without the help of business intelligence because the data analysis and patterns were the sole reason of business process agility [56]. The companies started to study the trends and patterns and thus they understood the customers' psyche and their preferences [57], [58]. For this reason, the companies were easily able to implement their new decisions and strategies. Consider the example of Netflix [59]–[61]. It knew that the customers' trends were shifting and their focus was changing rapidly from downloadable movies because they were time consuming so Netflix studied the patterns and understood the pain point of the people and thus it was able to come up with a new idea [62]–[64]. But this would not have been possible had the Netflix owner not studied the customer behavior and its patterns and would not have come to the conclusion [65]–[67]. This allowed the

management of Netflix to understand what people needed exactly because the business intelligence systems had allowed the companies to read the patterns in detail [68]. The patterns and the raw data were converted into meaningful forms and thus it was easy to arrive at a conclusion [52], [69]–[71]. For this reason, a lot of companies have adopted the business intelligence methods to keep them updated and to implement the business process agility [72], [73]. As the organizations have to change themselves according to the trends, it's important to understand the patterns [74]–[76]. As the customers' demands are always changing, the companies need to quickly respond to them so that customers can be retained and the churn rate does not increase with time.

2.3. Business Process Agility and Competitive Advantage

[77] gauged Business process agility and the firm's competitive edge have a direct relation because when there is a business process agility, the firm gains a competitive advantage in the market and thus it is able to easily beat its competitors [78]–[80]. As the times are changing, the customers' demands and preferences are also changing and that's why businesses need to change themselves according to the situation [71], [81]. Take the example of Nokia. The concept of business process agility was not there when Apple and Samsung entered the markets and thus it could retain its competitive edge in the market and that's why it badly lost the competition in the market against the technological giants in the shape of Apple and Samsung [82], [83]. This allowed the two companies to rule the world and thus they kicked Nokia out of the market [84], [85]. There was a time when Nokia was the market leader and its products were sold everywhere in the world and that's why the Finnish giant had developed its brand image and reputation [86], [87]. But with the passage of time, things changed and thus Nokia lost its reputation and image in the market [88], [89]. The sole reason was that Nokia did not go for business process agility. It did not understand that people's demands were changing and they were asking for new things [90], [91]. Apple and Samsung understood the market and thus they achieved a competitive edge in the market [92]–[95]. And today both these technological giants are ruling the global markets. This has led us to the belief that business process agility is the need of time and that's why people must have to adopt the changing market trends [96], [97]. If they are unable to accept or adopt the new trends, they remain far behind in the competition and often get eliminated too [98]–[100]. For this reason, a lot of companies hire financial experts as well to study the technological advancements in the world and to suggest them suitable solutions [101].

This has become the trends because organizations do not to lose their customers in the market and they have to retain them but to retain the customers, they have to change their policies and strategies with time [102]–[104]. As the times are changing, the competition in the business world is getting rigid and thus a lot of companies are going extinct [105]. Change management is necessary and thus a research was carried out at London School of Economics about the correlation between business process agility and competitive advantage [106]–[108]. The authors reached to the conclusion that both these variables have a direct relation with each other because if the organization understands the concept of business process agility, it retains its competitive edge "because it changes the entire strategies and its operations according to the changing market trends and that's why the market share is retained [109]–[112]. For companies, one of the biggest turning points is the loss of revenues and ultimately profits [111], [113]. They do not want this to happen and that's why they prefer to retain their market share and competitive edge [114], [115].

3. LITERATURE REVIEW

3.1. Impact of Business Intelligence and Business process Agility on Competitive Advantage

[39] explained that Business intelligence, business process agility and competitive edge play a very crucial role for the organizations [116], [117]. This is because of the reason that since the competitions in the markets are rigid, companies need to mold their functions according to the trends and patterns set [15], [118]. This allows them to retain their competitive edge and the market share. Businesses have a competitive advantage in the market because business intelligence enables them to respond to important inquiries about their performance. Your business can gain from investing in business intelligence in a variety of ways [119]–[123]. In this regard it has investigated by [124] employees have access to extremely accurate report templates using business intelligence tools, which may save them a ton of time [125], [126]. Business reporting and other documented work can be signified in digital forms and software that can be consolidated into a single, easily readable data dashboard, making it simple to scan the reports and identify areas that require improvement. This implies that a company can stay on top of issues and stay in the lead [127], [128]. By combining data sources, business intelligence software can help your organisation [129], [130]. Business intelligence giving your organisation a competitive edge involves identifying market trends and developing a strategy around them [131]. Employees can quickly

generate analyses and obtain pertinent market data with the aid of business intelligence tools [132], [133]. Whereas, Agile production is a new model of production that connects production, information technology, and communication advances through fundamental organizational reform and new marketing strategies. An organization's capacity to react quickly to shifts in demand, both in terms of volume and variety [134]–[136]. The capacity of a company to prosper in a dynamic, unpredictable business environment and the capacity to deal with unforeseen difficulties, endure exceptional risks from the business environment, and seize possibilities presented by change [137]. Ability of a company to obtain a competitive edge by quickly, rationally, and pro-actively grabbing opportunities and responding to threats [138].

3.1. General Research Model

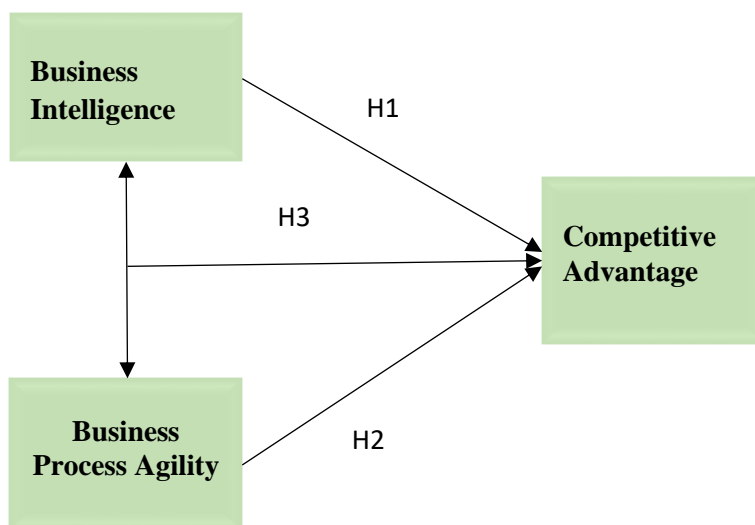


Figure 1: Conceptual Research Model

4. DISCUSSION

The deep study of literature, journals and books it can be said the business intelligence has allowed the companies to implement the data analysis techniques so that huge data sets could be easily understood. There are different types of software which help companies understand the data sets

and patterns. Since data is everything, it should be converted into meaningful form because large data sets do not have any importance until and unless it has been converted into meaningful form. This has enabled many organizations to make powerful decisions and thus business intelligence has a direct relation with the competitive advantage. If the more is efficient enough in its business intelligence processes, it will have attain a competitive edge in the organization which will help it grow and be more productive. The significance of business intelligence has potential to grow business competitive edge, however, business agility is recommended as most appropriate practice for a firm's success. This is a very useful strategy for the companies around the world and thus it has enabled a lot of organizations to penetrate the markets because they understood the market conditions and customers' demand and that's why it was easy for them to arrive at a conclusion and implement a new strategy.

5. CONCLUSION

Business intelligence is emphasized as a crucial competitive tool in the strategic management. However, nothing is known about the long-term viability of the firms' competitive advantage brought forth by business intelligence competence. It can be said that, business intelligence and process agility has a significant impact on competitive advantage. Successful agility and business intelligence efforts can be implemented by organizations that follow solid governance and receive strong moral and financial support from high management.

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