

The Role of sharing knowledge in enhancing companies' competitiveness –a study on various organizations in Bordj Bou Arreridj city

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Abstract:

This study was conducted from August to September 2024 to november 2024 and explores the impact of knowledge sharing on establishing and maintaining competitive advantages in a selection of organizations in Bordj Bou Arreridj. A questionnaire was developed for this purpose, with 65 distributed to the top management of the participating organizations. The data were analyzed using SPSS V.21. One key finding indicates that the sample group is knowledgeable about and interested in knowledge sharing, placing significant importance on generating competitive advantages. Additionally, the empirical analysis confirmed a statistically significant effect of knowledge sharing on the creation of competitive advantages at the specified significance level ($\alpha \leq 0.05$).

Keywords: Knowledge, sharing, companies, competitiveness, Bordj Bou Arreridj.

Jel Classification Codes: M12, M21.

1. INTRODUCTION

The first subtitle opens with an introduction that presents the specific problem under study and describes the research strategy. The first subtitle opens with an introduction that presents the specific problem under study and describes the research strategy. The first subtitle opens with an introduction that presents the specific problem under study and describes the research strategy.

2. The Problem of the Study and Its Sub-Questions:

The organizational behavior lens through a knowledge-based perspective underscores the critical role of knowledge in maintaining a competitive advantage for organizations. In this context, the effectiveness of knowledge sharing holds paramount importance as it leads to the creation of shared intellectual capital. The degree of success in knowledge sharing predominantly relies on the capability of employees to exchange information

In the context of the above, the following problem can be formulated:

Does knowledge sharing have a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies?

Based on the previous main problem, a set of sub-problems can be formulated as follows:

- Does the organizational culture have a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies?
- Does work environment have a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies?
- Do knowledge sharing behaviors have a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies?
- Does information & communication technology have a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies?

3. The Study hypotheses:

In order to address the problem research topic and its sub-questions, the following hypotheses are formulated:

- The main hypothesis (H0): knowledge sharing does not have a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies.
- **The 1st sub-hypothesis:** organizational culture does not have a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies.
- **The 2nd sub-hypothesis:** work environment does not have a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies.
- **The 3rd sub-hypothesis:** knowledge sharing behaviors do not have a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies.
- **The 4th sub-hypothesis:** information & communication technology does not have a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies.

4. The study objectives:

The current study aims to achieve the following objectives:

- Identifying the theoretical foundations of knowledge sharing in contemporary administrative literature;
- Identifying knowledge sharing and its role in achieving competitive advantage in the studied organizations;
- In light of the theoretical background and the field study, we seek to provide a set of recommendations necessary to activate the role of knowledge sharing in achieving competitive advantage in the studied organizations.

5. Methodology and tools:

In current study, the researcher utilized an analytical-descriptive methodology to explore the different facets of the study variables, in order to clarify and realize the relations among their sub-variables. The researcher also relied on the case study method, to apply the theoretical concepts on the field, using a questionnaire to collect data and conducting a statistical analysis using the SPSS program. This approach enabled us to address the study's problem, test its hypotheses, and reach reliable findings.

6. literature review:

6.1. knowledge sharing:

Knowledge is essential for creating organization's competitive advantage, and its management is important to both organizational success and long-term sustainability (Soojin, Seckyoung, & Seokhwa, 2018, p. 403). In the contemporary knowledge-driven society, companies consider knowledge and its management as pivotal strategic assets, recognizing that the effective sharing of this knowledge is integral to a company's success (Mueller, 2014, p. 190). Consequently, it comes as no surprise that a multitude of companies have made substantial investments in diverse knowledge management systems aimed at facilitating the seamless sharing of knowledge among (Soojin, Seckyoung Loretta, & Seokhwa, 2018, p. 403).

Knowledge sharing, when implemented effectively, represents a concept that opens up substantial business opportunities for any organization. Numerous benefits stem from the practice, including the stimulation of innovation by encouraging employees to share their ideas and the facilitation of a deeper understanding of markets and customers. A noteworthy contribution of knowledge sharing is observed in fostering innovation when organizational members share tacit knowledge, transforming it into explicit knowledge for the creation of new products or services (Lefika & Mearns, 2015, p. 27). Additionally, knowledge sharing is instrumental in organizational learning, the development of new skills and capabilities, heightened productivity, and the maintenance of a competitive advantage. Consequently, the proficiency in sharing knowledge is positively correlated with superior organizational performance (Mueller, 2014, p. 191).

Knowledge sharing presents an opportunity to broaden employees' understanding on knowledge and addresses the issue of ineffective communication that may arise due to differences

in the level of knowledge similarity between parties involved in knowledge transfer. By encouraging the exchange of insights, organizations can overcome challenges in understanding among individuals engaged in transferring knowledge (Abdul-Jalal, Toulson, & Tweed, 2013, p. 151). Hence, an effective knowledge sharing and management play a pivotal role in supporting organizational learning, high performance, and a knowledge-based competitive advantage (Rory, 2019, p. 345).

6.1.1. How can the knowledge be shared?

As we know, knowledge can be structured based on experiences, values, text-based information, or distinctive expert insights. It manifests in documents stored within a system and is embedded in everyday routine tasks, processes, executions, and norms (Chen, Chen, Chen, & Lin, 2017, p. 125). Knowledge sharing transpires when an individual imparts their knowledge to other members within an organization. This sharing of knowledge is characterized as a behavior involving an exchange between a contributor and a seeker, encompassing the provision and acquisition of knowledge (Kang, Lee, & Kim, 2017, p. 176).

Effective organizational knowledge-sharing practices prepare employees to openly share and embrace new ideas, fostering a culture of learning and enabling them to recognize and leverage their knowledge and capabilities. Knowledge sharing is inherently a learning process. Hence, insufficient learning resources fail to optimize the added value of business activities, while an excess of learning resources can lead to learning overload. Finding the right balance is crucial for harnessing the full potential of knowledge-sharing initiatives within an organization (Chen, Chen, Chen, & Lin, 2017, p. 125).

6.1.2. Knowledge sharing challenges:

a- Management commitment challenges: they consist of costs of knowledge sharing (budget for travelling between sites, cost of virtual communication and extra effort for codifying knowledge), Low priority perception to knowledge sharing activities, Employee turnover (extra energy for building social relationships between sites introduces gaps in the knowledge sharing process and causes sharing project knowledge repetitively with newcomers, which is not only time-consuming but also de-motivating for knowledge sources) (Mansoorreh, Mojtaba, & Muhammad, 2016, p. 1005). intrinsic and extrinsic motivations have been considered as important factors that affect employees' attitude towards information security knowledge sharing in organizations (Von Solms & Sohrabi Safa, 2016, p. 443).

b- Team structure: wide definition of responsibilities and roles (It causes confusion in identifying who is supposed to decide or take action on certain tasks), Hierarchical structures (causes bottlenecks in knowledge sharing and impacts the flow of information)

c- Work process: Documentation problems (the lack of proper documentation impacts negatively knowledge sharing), Shortcomings in maintaining group awareness (leads to breakdowns in sharing relevant knowledge between distributed team), Communication challenges due to distance

d- Team cognition, Contextual difference: Contextual difference, Different education and level of technical skills,

e- Social issues: dispersed members were unwilling to share knowledge with remote

colleagues due to fear of losing jobs (Mansoorah, Mojtaba, & Muhammad, 2016, pp. 1005-1006)

6.2. Competitive advantages:

In today's competitive business landscape, with more companies entering the market, organizations must secure a unique edge to stand out. A competitive advantage is essentially a benefit that allows a business to surpass its rivals (Benaboud & Ounis, 2022, p. 778). In many industries, certain companies consistently achieve higher profitability compared to their counterparts, irrespective of whether the overall industry profitability is high or low. These top-performing organizations likely harbor distinctive and challenging-to-replicate qualities that give them a competitive edge over their rivals. These exceptional skills and assets, generally referred to as sources of competitive advantages, set them apart from the competition (White, 2004, p. 270). Hence, competitive advantage can be defined as the greater attractiveness of any product or service manufactured by a specific organization to a substantial group of consumers within a designated market. The emergence of competitive advantage occurs when an organization holds a distinctive edge in competition with its rivals, allowing it to generate returns on investment which are higher than the average for the sector (Hannagan, 2002, p. 122).

A company's profitability is determined by two fundamental conditions. Firstly, it depends on the perceived value that customers attribute to the company's goods or services. Secondly, it is influenced by the company's costs of production (Hunger & Wheelen, 2012, p. 185). These conditions generate two competitive advantages: cost leadership and differentiation.

Competitive advantage arises when a company develops exceptional skills or capabilities that enhance customer value and provide either cost savings or unique differentiation. This leads to increased market share and improved profitability. (bakhouché, 2020)

6.2.1. Cost leadership: 'Cost leadership' means the ability of a company or business unit to create, manufacture, and promote a comparable product more efficiently than its competitors (Blocher, Stout, & Cokins, Cost Management – a Strategic Emphasis, 2010, p. 16).

Usually, cost advantages stem from enhanced productivity in the manufacturing process, distribution, or overall administration. For instance, technological innovations in manufacturing processes and cost savings through overseas production often serve as common pathways to achieving competitive productivity (Dobson, Starkey, & Richards, 2004, pp. 62, 63).

In the case of being a successful cost leader, the company possesses lower operating costs compared to its competitors. As long as the firm doesn't suffer from a demand disadvantage relative to its, it will consistently generate higher profits than its competitors, regardless of the intensity of competition (Sadler, 2003, p. 183). In essence, if a firm can secure a position of cost leadership, it can leverage its cost advantage to undercut competitors on price, maintaining a competitive edge in the market (Sadler, 2003, p. 190).

6.2.2. Differentiation: this refers to the distinctiveness that a firm embeds in its products. A differential advantage arises when a company can command a price premium in the market due to its differentiation that surpasses the cost of providing that differentiation (Blocher, Stout, & Cokins, 2010, p. 16). The differentiation involves creating a product or service that stands out in a significant manner, often in terms of higher quality, superior customer service, unique product features, or innovation (Becerra, 2009, p. 275).

To build differentiation that genuinely captivates customers, it is imperative to comprehend

the origins of customer value. The quality of the product, stands out as a crucial variable. The extent to which a product meets the perceived desires of the consumer directly correlates with its attractiveness. In essence, the better a product aligns with and satisfies the perceived needs of the consumer, the more appealing it becomes to them (White, Strategic Management, 2004, p. 278).

7. The empirical study:

7.1. Research Methods and Materials

This study investigates a representative sample of Algerian firms' top management operating in the Bordj Bou Arreridj. In order to conduct this study, the researcher designed a questionnaire based on the theoretical background of the current study as well as the previous studies, and was presented to a group of specialist to. The study sample consists of (65) firms' executive and decision makers in Bordj Bou Arreridj, a total of (65) questionnaires were distributed all of them were returned, achieving a response rate of (100%). SPSS V.21 Program was used for processing data collected from the respondents.

To test the questionnaire's reliability we calculated Alpha Cronbach's coefficient that was equal to (0.83), this means that the questionnaire is reliable for the study. then we tested the study hypotheses using the regression coefficient.

7.2. RESULTS AND DISCUSSION

This section includes results and analysis of the study variables (factors of knowledge sharing and elements of competitive advantages)

7.2.1. Descriptive statistical analysis

We divided the questionnaire of this study into two main axes: knowledge sharing (organizational culture, work environment, knowledge sharing behaviours, and information & communication technology) and competitive advantages (cost leadership and differentiation) as shown in table (1).

Table (1): means and standard deviations of the study's variables

Item	Mean	Std dev
knowledge sharing	4,23	0.691
Organizational Culture	4,46	0.783
Work environment	4,12	0.671
Knowledge sharing behaviours	3,86	0.857
Information & communication technology	3,50	0.895
Competitive advantage	3,85	0.768
Cost Leadership	3,78	0.945
Differentiation	3,93	0.868

Source: SPSS V21 outputs

As shown in the table (1), the overall mean of factors that form the knowledge sharing axis was greater than the arithmetic mean (3), which means that Algerian organizations are very interested in sharing knowledge among their members, and give this process a great attention. More precisely, statistical means for the dimensions organizational culture, work environment, knowledge sharing behaviors and information & communication technology are all above moderate with the following means (4,46), (4,12), (3,86) and (3,50). Which means that studied sample of tor management members do believe that knowledge sharing exists in their organization. Furthermore, they really consider the Importance of its sub-variables and on top of them the organizational culture which facilitates (or hinder) the process of sharing knowledge.

Concerning competitive advantages, the Table (1) shows that the means of cost leadership and differentiation are slightly above the moderate (3,78; 3,93), which indicates that Algerian organizations possess little competitive advantages, whether this is related to the cos leadership advantage or the differentiation advantage. In general the mean of competitive advantages axis was equal to (3,85). This indicates that the studied sample agrees on the questions brought in this section.

7.2.2. Hypotheses testing

Table (2) reports the Pearson intercorrelations between organizational culture and competitive advantages.

Table (2): Regression Coefficients between the organizational culture and Competitive Advantages

<i>Independent variable</i>	<i>dependent variables</i>	<i>The constant α</i>	<i>Regression coefficient β</i>	<i>Coefficient of determination R^2</i>	<i>sig</i>
Organizational culture	Cost leadership	1.984	0.340	0.136	0.000
	differentiation	2.230	0.239	0.165	0.000
	Competitive advantage	2.106	0.260	0.244	0.000

Source: SPSS V21 outputs

The table shows that there is a significant positive relationship between the organizational culture and the dependent variable including its two sub-variables. The relationship can be summed-up in the following linear equation:

$$f(x)_{(\text{competitive advantages})} = 0.260 x_{(\text{organizational culture})} + 2.106$$

According to these results, we can reject the first sub-hypothesis of the study and replace it with the alternative hypothesis: “organizational culture has a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies”.

Table (3): Regression Coefficients between the work environment and Competitive Advantages

<i>Independent variable</i>	<i>dependent variables</i>	<i>The constant α</i>	<i>Regression coefficient β</i>	<i>Coefficient of determination R^2</i>	<i>sig</i>
Work environment	Cost leadership	1,830	0.331	0.422	0.000
	differentiation	2.015	0.370	0.369	0.000
	Competitive advantage	1,917	0.460	0.447	0.000

Source: SPSS V21 outputs

Table (3) reports the Pearson intercorrelations between the firms' work environment and competitive advantages. Based on the table's results we can see that there is also a significant positive relationship between work environment and the competitive advantages including its two sub-variables. The relationship can be summed-up in the following linear equation:

$$f(x)_{(\text{competitive advantages})} = 0.460 x_{(\text{work environment})} + 1,917$$

According to these results, we can reject the second sub-hypothesis of the study and replace it with the alternative hypothesis: "work environment has a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies".

Table (4): Regression Coefficients between knowledge sharing behaviors and Competitive Advantages

<i>Independent variable</i>	<i>dependent variables</i>	<i>The constant α</i>	<i>Regression coefficient β</i>	<i>Coefficient of determination R^2</i>	<i>sig</i>
Knowledge sharing behaviors	Cost leadership	2.651	0.214	0.149	0.000
	differentiation	2.342	0.232	0.184	0.018
	Competitive advantage	2.582	0.266	0.153	0.000

Source: SPSS V21 outputs

As shown in table (4), it is clear that there is a significant positive relationship between knowledge sharing behaviors and competitive advantages (cost leadership and differentiation). We can summarize this relationship in the following linear equation

$$f(x)_{(\text{competitive advantages})} = 0.266 x_{(\text{knowledge sharing behaviors})} + 2.582$$

According to these results, we can reject the third sub-hypothesis of the study and replace it with the alternative hypothesis: "knowledge sharing behaviors have a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies".

Table (5): Regression Coefficients between information & communication technology and Competitive Advantages

<i>Independent variable</i>	<i>dependent variables</i>	<i>The constant</i> α	<i>Regression coefficient</i> β	<i>Coefficient of determination</i> R^2	<i>sig</i>
Information & communication technology	Cost leadership	2.519	0.314	0.280	0.000
	differentiation	2.211	0.426	0.371	0.000
	Competitive advantage	2.334	0.405	0.333	0.000

Source: SPSS V21 outputs

The table (5) shows that there is a significant positive relationship between the information & communication technology and the dependent variable including its two sub-variables. The relationship can be summed-up in the following linear equation:

$$f(x)_{(\text{competitive advantages})} = 0.405 x_{(\text{information \& communication technology})} + 2.334$$

According to these results, we can reject the first sub-hypothesis of the study and replace it with the alternative hypothesis: “The information & communication technology has a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies”.

Table (6): Regression Coefficients between the knowledge sharing and Competitive Advantage

<i>Independent variable</i>	<i>dependent variables</i>	<i>The constant</i> α	<i>Regression coefficient</i> β	<i>Coefficient of determination</i> R^2	<i>sig</i>
Knowledge sharing	Competitive advantages	4.975	0.288	0.613	0.000

Source: SPSS V21 outputs

Table (6) reports the Pearson intercorrelations of the study variables. The correlation value for the knowledge sharing and dimensions of competitive advantage was 0.783^a at $p < 0.05$ significance level, which means the existence of a positive relationship between the two variables of the study. This relationship can be presented in the following linear equation:

$$f(x)_{(\text{competitive advantages})} = 0.288 x_{(\text{knowledge sharing})} + 4.975$$

According to these results, we can reject the main hypothesis of the study and replace it with the alternative hypothesis: “Knowledge sharing has a significant impact upon creating competitive advantages at the significance level ($\alpha \leq 0.05$) in the studied companies”.

8. CONCLUSION

We tried through this research to dig deep into the implications of knowledge sharing on creating and sustaining competitive advantages within organizations. As we navigate the intricate landscape of the contemporary business environment, it becomes increasingly evident that the effective dissemination and utilization of knowledge are pivotal in fostering innovation, enhancing organizational learning, and maintaining a competitive advantage. The knowledge-sharing culture not only encourages employees to contribute their unique insights but also set the foundations for creating distinctive capabilities that set companies apart in the market.

The research findings reflected the extent to which the studied organizations are interested in creating competitive advantages, and the extent to which knowledge sharing importance to them;

We concluded through the empirical study to the major finding of the research which is the existence of a positive impact of sharing knowledge upon creating competitive advantages in the studied organizations;

Through this study, we also found that every sub-variable of knowledge sharing (organizational culture, work environment, knowledge sharing behaviors and information & communication technology) affect the creation of competitive advantages within the studied organizations.

In light of our results, a set of recommendations can be given as follows:

- Fostering a culture that values and rewards knowledge sharing, this could be reached through Ensuring that leadership actively promotes and participates in knowledge-sharing initiatives;
- Designing physical and virtual workspaces that promote collaboration and open communication is a very important thing;
- The organizations should consider implementing flexible work arrangements to facilitate knowledge sharing among employees;
- The studied organizations should also provide training programs that educate employees on effective knowledge-sharing practices.
- The organizations should invest in user-friendly knowledge-sharing platforms that facilitate seamless information exchange.
- The integration of information & communication technology tools into existing work processes, which enhances the efficiency of knowledge sharing by making it a natural part of daily operations.

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