

# Employee Knowledge Factors and Organisational Competitive Advantage – Conceptualization and Measurement

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## Abstract

Organizations must have competitive advantage to survive, which is dependent on human resource capital. However, the relationships between employee knowledge factors and competitive advantage have not been explored well. Therefore, this paper proposes a conceptual framework for the relationships between employee knowledge factors and organizational competitive advantage and a scale for measuring the concepts. The proposed model that integrates knowledge factors and organizational competitive advantage includes four employee knowledge factors: academic qualification, professional qualification, training and development, and Peer-Peer Knowledge Sharing. The methodology used is the documents' analysis of the previous published articles to come out with the conceptual framework besides pilot testing to assess the scales' reliability.

**Keywords:** *Competitive Advantage, Academic Qualification, Professional Qualification, Peer-Peer Knowledge Sharing, Training and Development*

## 1. Introduction

An organization is an intentionally collaborative system in which the characteristics of individuals, groups, and organizations interact with one another, and effective interaction among them is heavily reliant on organizational culture, which shapes individual performance (Uddin et al., 2013). The term "competitive advantage," which is used in the field of strategic management, should be the starting point when discussing competitive advantages, according to Flint, who claims that it is the most overused and poorly understood catchphrase in the field (Cegliski, 2016). Moreover, there is currently confusion surrounding the phrase's expansion to "sustainable competitive advantage" (Flint, 2000). Porter also notes that the terms "competitive advantage" and "sustainable advantage" are now widely used (Porter, 1998). The pursuit of "competitive advantages" has been equated with "business strategy", but the idea of competitive advantages itself is surprisingly ill-defined (Gupta, 2020). A fundamental task of strategic management is to create and maintain an enterprise's competitive advantages, which should allow it to achieve above-average results from its business operations (Kartika & Kaihatu, 2020). If this is the case, achieving success by a given organization is equivalent to developing a competitive advantage (Eldor, 2020). Regardless of ongoing debates, the concept of competitive advantage is widely accepted in management sciences (Sutrisna et al., 2020). The concept of "competitive advantage" today has an undeniable significance for the theory and practice of strategic management (Cegliski, 2016). Despite the passage of time and a large body of scientific literature in the field of strategic management, it remains difficult to define the term "competitive advantage" (English, 2018).

Nowadays, it is widely accepted that knowledge enhancement entails more than just improving individual skills and abilities (Mormina, 2019). Because of this, comprehending employee knowledge development requires a more thorough analytical framework that considers the individual, organizational, and institutional analysis levels (Falk et al., 2019). Importantly, one frequently notices that even when available knowledge is not always easily translated into appropriate planning or effective action (Dyer et al., 2019). Weak institutions, particularly at local levels of government and in many communities, pose a significant problem, particularly for developing countries. Although this lagging or restricting effect is particularly evident in nations transitioning to modern economies, it is a problem for all societies as they constantly have to adapt their sectors to new external changes or internal demands (Chen et al., 2019).

Researchers have already identified numerous sources of organizational competitive advantages and various typologies of the same (Bergman & Feser, 2020). The concept of dynamic capabilities, which in fact develops the resource-based view of the organization, is, to a large extent, based on the issue, according to Mikalef et al's (2020) argument. However, there is still no agreement on how to conceptualize the key characteristics of dynamic capabilities, despite the urgent demand from scholars in the field for a cogent theory and model of dynamic capabilities. There is no general agreement in the international literature regarding how organizational competitive advantages should be comprehended and examined (Al Shobaki & Abu-Naser, 2017).

To develop an organizational competitive advantage through appropriating rents from limited internal knowledge, the ability to transfer best practices internally is essential (Chiambaretto et al., 2019). This capability is dependent on the organizational culture of a given enterprise, or, more precisely, on whether it will be founded on organizational values that encourage the transfer of positive practices (Dhir, 2019). A recent trend in values is the relationship between a firm's activities that adhere to the concept of corporate social responsibility and organizational competitive advantages (Wang & Sarkis, 2017). Since the introduction of the term "organizational competitive advantages" in strategic management, it has been assumed that there are long-term organizational competitive advantages (Forrest & Nightingale, 2017).

Previous research indicates that competitive advantage is critical for organizations' success in addition to the employees' abilities. However, more research is needed to examine the relationships between employees' knowledge factors that form their qualifications and the organizational competitive advantage. As a result, this research aims to investigate the impact of various employee knowledge factors on organizational competitive advantage among ICT companies in Syria.

## 2. Literature Review

### 2.1. Organisational Competitive Advantage

According to the definition, a competitive advantage is "the higher rate of customer attraction to a company's offerings relative to its competitors" (Affran et al., 2019). According to the definition given above, a company must enhance crucial elements that influence the success of the related activities in order to achieve a sustainable competitive advantage (Aureli et al., 2019). Evidently, every company finds a unique strategy to develop a sustainable competitive advantage (Haseeb et al., 2019). In general, achieving this significant objective necessitates assessing the performance of the organization in regard to finances and other areas (Di Vaio & Varriale, 2020). In light of this, the current study discusses achieving a sustainable competitive advantage based on a balanced scorecard (Kang & Na, 2020).

In light of this, the current study discusses achieving a sustainable competitive advantage based on a balanced scorecard (Kang & Na, 2020). In the field of competitive strategies, the idea of competitive advantage has become a hot topic in recent years, and there has been much debate surrounding it (Kuik et al., 2019). The main definition of a competitive advantage is the ability of an organization to produce goods or services that customers perceive as being more valuable than those produced by rival organizations (Mahdi et al., 2019). Contrary, it also focuses on competitive advantage within the framework of competitive strategy (Shen et al., 2019). Moreover, a company's position in a competitive environment is determined by its competitive strategy (Saeidi et al., 2019). The goal of competitive strategy is to learn more about the market by comprehending and making predictions of economic factors, particularly the actions of other competitors (Na et al., 2019). Due to its competitive strategy, an organization creates a product that its rivals cannot produce (Dos Santos & Scharfenaker, 2019). As a result, the competitive strategy is a plan for establishing an imperfectly competitive market and maximizing an organization's potential competitive advantage by exhibiting distinctive behaviours that are reliable which the other organizations lack (Mahdi et al., 2019).

An organization's competitive advantage is dependent on both its external position and its internal capabilities (Mikalef et al., 2020). Organizations need to view their own strengths and weaknesses, as well as their position in the market, as sources of competitive advantage and marketing strategy, rather than as spate elements (Dani, 2019).

### 2.2. Academic Qualification

The meaning of "Academic Qualification" is that it is a degree of qualification that is rewarded to the students upon the victorious completion of a course of study in higher education, normally at the college or university (Holt, 2020). As a result, it's evident that the performance of the principal has a major impact on the quality of education that the students receive (Siayah et al., 2020). In order to be considered a qualified educator, one must demonstrate that they can successfully complete the learning process and master the material covered in each lesson (Chakroun, 2019). Consequently, qualifications signify that the necessary requirements are skills-based (Figueiredo et al., 2017). Since qualifications can demonstrate a person's reliability in performing a task (Wilcox & NicDaeid, 2018). Additionally, competencies required for performing a person's duties can be interpreted as qualifications (Muda et al., 2017). Moreover, principals play a crucial role in the organization's success through their performance in learning planning and implementation (Sligo et al., 2017).

### 2.3. Professional Qualification

Professional qualifications are occupational degrees that frequently include a practical training component (Nurtanto et al., 2020). Professional qualifications in order to practice likewise, in order to obtain 'chartered status' in your chosen profession, you will be required to complete a professional qualification; for example, if you want to become a chartered accountant or a chartered engineer (Bohalteanu, 2016). As employees advance through the ranks of an organization, their achievements in each area are reflected in a variety of assessment scores (Howard, 2019). Employees' achievements may also be expressed verbally, through their ideas, words, and actions (Ali et al., 2019). Further, humans have the potential to accomplish a wide range of remarkable feats in the realm of education (Phan & Ngu, 2017). Academic advising, divisions, committees, and professional research groups are just a few examples of what might be considered "non-traditional learning contexts" (Gordon, 2020). Every company's "level of performance" reflects the fact that success is a process, not an endpoint, and that any given point in that process is just one location along the road to greater achievement (Foyal & Zhen, 2019).

The employee's professional and educational background can improve the likelihood of the employee's academic performance and accomplishments, so it's important to hire qualified people (Rumrill et al., 2019). A number of concerns have been raised by academics regarding the connection between employee qualifications and student achievement (Arslan & Roudaki, 2019). Because the success of a school ultimately rests on the shoulders of its faculty, this means that poorly trained new employees can have an impact on student outcomes (Thomas, 2019). Employees in organizations with adequate employee quality in history had significantly higher scores on achievement tests than employees in organizations with inadequate employee quality, as shown by the results (Hameduddin & Fernandez, 2019).

Parameters such as a) the credentials of the department's scientific staff, b) the organization of the courses, and c) the scope of the department's research areas all contribute to what is meant by "quality of the qualification education" (Theobald et al., 2020). However, the quality of an institution's education can be judged in part by looking at things like a) the percentage of graduates who find jobs, b) how much money they make, c) whether their employers are public or private, d) the industry and field in which they work (such as manufacturing or teaching), and e) how many graduates follow in their footsteps as postgraduate workers. Findings pertaining to the aforementioned variables are discussed (Somers et al., 2019).

### 2.4. Peer-Peer Knowledge Sharing

The term "knowledge sharing" refers to the "transfer of information from one person to another within an organization," which is what we mean when we talk about "peer to peer" knowledge (Tangaraja et al., 2016). Additionally, the social system of knowledge sharing, which encourages integration and collaboration and is typically made possible by technology (Al-Busaidi & Olfman, 2017). As supported was the defined idea that an "appropriate mix" of technological channels should be used to maximize knowledge exchanges (Shonubi et al., 2020). Knowledge creation and dissemination are inherently uncontrollable processes (Josephides, 2020).

The creation of new knowledge as a result of this knowledge exchange can serve as a significant source of competitive advantage (Wang & Hu, 2020). It is not always natural for people to share their knowledge because they believe it to be valuable and significant (Hameed et al., 2019). The practice of sharing knowledge is primarily driven by and carried out at the individual level (Singh et al., 2019). Employees may share knowledge based on their own benefits and costs even when there are strong organizational norms against it (Ali et al., 2019). Knowledge sharing practices can ultimately assist organizations in becoming more successful and invincible (Kosaka & Nie, 2020).

An organization's knowledge is one of its most valuable assets because it is widely acknowledged as its primary source of competitive advantage and is essential to its long-term viability and success (Baporikar, 2020). Studies in the recent literature on knowledge management have examined a variety of critical success factors and constraints, including organizational culture, that influence knowledge management and the adoption of knowledge management systems (Al-Kurdi et al., 2020). Knowledge management and its effects on both individual and organizational performance, as well as the critical role that alignment between the two plays, have both been established (Samiei & Habibi, 2020).

### 2.5. Training and Development

Training, in the broadest sense, entails providing workers, both new and experienced, with the knowledge and abilities they need to do their jobs successfully (Acemoglu & Restrepo, 2018). The term "training and development" is used to describe the process of enhancing an employee's skill set, repertoire of techniques, and general awareness (Sanyal & Hisam, 2018). Training and development is formally defined as "any attempt to improve current or future employee performance by increasing an employee's ability to perform through learning, typically by changing the employee's

attitude or increasing his or her skills and knowledge" (Garba, 2019). Deficits in performance are calculated as follows to establish whether or not an employee requires training and development (Ibrahim et al., 2017). Improvements in worker productivity can be achieved through training, which entails employees gaining new information, skills, concepts, rules, and mindsets (Sutha, 2016). Organizational performance can be greatly enhanced through training, which entails the execution of predetermined programmes with the goal of enhancing employees' academic expertise, professional abilities, personal qualities, and social conduct (Pinzone et al., 2019).

Programs designed for upper-level management are known as managerial development programmes, executive development programmes, or development programmes (Alizadeh et al., 2021).

Moreover, training helps people reach their full potential by giving them the opportunity to practice and hone their skills, which in turn reduces the risk of their jobs becoming obsolete and their careers stagnating (Hacker, 2017). Training and development programmes aid new hires in adjusting to the company's way of doing things, any new technologies they may be expected to use, and the overall work culture (Bell et al., 2017). Employee performance must be accurate and perfect to bridge the gap between planning and implementation. As companies set goals for their employees and expect them to accomplish those goals within a set amount of time and at a specified level of quality (Herrmann et al., 2000).

### 3. Conceptual Framework

In this study, a model of the relationship between an organization's competitive advantages and an employee's knowledge factors—their training and development, academic and professional qualifications, and peer-to-peer knowledge sharing—was proposed. Figure 1 shows the conceptual framework of this study.

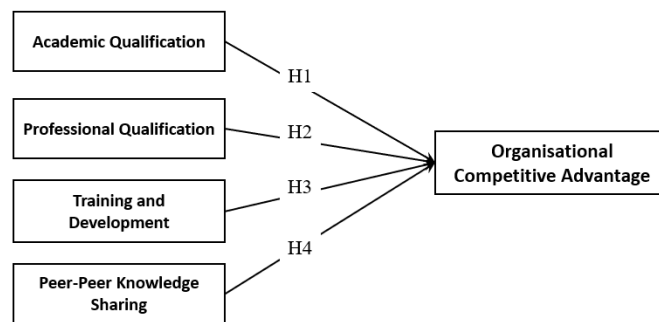


Fig 1. Conceptual Framework

The term "academic qualification" refers to a person's perceived level of scholastic excellence and the extent to which their education is exceptional (Mosry & Raju, 2020). That will help boost competitive advantage for the company at work (Singh et al., 2019). It makes sense to assume that higher levels of education directly and positively contribute to an organization's competitive advantage. Further, the employee's performance on the job will improve as their level of education does. In part, the findings of other studies are consistent with this assumption such as (Abubakar & Odock, 2018; Evelina, 2018).

- H1: Academic qualification has a significant relationship with organizational competitive advantages.

Professional qualification is a designation acquired by an individual to ensure qualification to carry out a project or task. It is also known as professional accreditation, a trade license, or a qualified designation (Bashirova & Sattarova, 2018). The more qualified employees there are, the better they will perform their duties and jobs, giving employers a competitive advantage through improved employee performance (Sweis et al., 2020). It stands to reason to assume that professional qualifications will have a significant positive direct impact on an organization's competitive advantages. Given that this hypothesis is consistent with some hypotheses from other research such as (Al Mamun et al., 2018; Le, 2020).

- H2: Professional qualification has a significant relationship with organizational competitive advantages.

The goal of training and development is to improve the efficiency of establishments, as well as of the people who work there (Niati et al., 2020). The better an employee performs the duties and tasks that have been assigned to them, the more training and development they have received, which will improve the organization's workplace competitive advantage (Husti & Mahyarni, 2019; Le, 2020). Rationally, it is expected that there is a significant positive direct effect of training and development on organizational competitive advantages. There are other studies where this hypothesis is consistent with their findings, including (Al Mamun, Nawil, Ibrahim, & Muniady, 2018; Evelina, 2018).

- H3: Training and development has a significant relationship with organizational competitive advantages.

The term "peer-to-peer knowledge sharing" refers to the practice of exchanging information and expertise between individuals, groups, families, communities, and businesses (Alsharo et al., 2017; Singh et al., 2019). The more open an employee is about sharing their strengths, the more effectively they will carry out their duties. Which Will Help Businesses develop a competitive advantage in the Workplace (Hili et al., 2017; Le, 2020). Peer-to-Peer Knowledge Sharing is hypothesized to have a direct, positive impact on an organization's competitive advantages. Considering the consistency of this hypothesis with those of other studies, such as (Hamadamin & Atan, 2019; Huang, Chang, & Yeh, 2020).

- H4: Peer-Peer Knowledge Sharing has a significant relationship with organizational competitive advantages.

#### 4. Instrument Development (Measuring Scales)

Examining the connections between variables is the main goal of descriptive research. Additionally, the study's proposed hypotheses are evaluated using the variables (Creswell & Creswell, 2017). There are four main constructs in the study, and it is crucial to use the right instrument to measure each one. A questionnaire that has been modified from earlier studies is created for those constructs. Furthermore, reliability and validity procedures are followed in order to ensure the survey's quality and applicability. The adapted survey instruments are as follows:

- Academic qualification variable have five questions that adapted based on previous sources (Duffy, Guiffreda, Aranedá, Tetenov, & Fitzgibbons, 2017; Nowiński, Haddoud, Lančarič, Egerová, & Czeglédi, 2019).
- Professional qualification variable have four questions that adapted based on previous sources (Daniels, 2017; Price, Biernacki, & Nora, 2018).
- Training and development variable have six questions that adapted based on previous sources (Nassazi, 2013; Ferreira, 2016).
- Peer-to-peer knowledge sharing variable have seven questions that adapted based on previous sources (Chiu et al. 2006).
- Competitive advantages variable have eleven questions that adapted based on previous sources (Agha, Alrubaiee, & Jamhour, 2012; Moore & Fairhurst, 2003).

Moreover, the questionnaire items that were adapted for this study are as follows:

##### 1) Academic Qualification

- My degree (Bachelor/Postgraduate) is strongly related to my work duties.
- The colloquium of my study have a significant impact on my work performance.
- My highest degree is earned from:  
( ) Syria ( ) Arab world ( ) Eastern Country ( ) Western Country ( ) Other \_\_\_\_\_
- I earned my highest degree from one the top ranked institutions in the country.
- I earned my highest degree from one the top ranked institutions in the world.
- In my study, I conducted a professional and relevance internship (practical experience) program.
- In my study, the courses are highly integration between theory and practice.

##### 2) Professional Qualification

- I have at least one professional certificate that relevant to my professional.
- I periodically renew/update my professional certificate as required.
- I always keep learning and update my knowledge for any changes to the certificates I have.
- I periodically attend professional training in relevance to my work and professional.

### 3) Training and Development

- The quality of the training programme/s, which I have Participated is excellent.
- The relevant of the trainings I received to my work is very effective.
- I strongly believe that training has helped improve my job performance.
- The methods used during training have high impact on my skills.
- The company conducted training frequently.
- The company do collection of relevant information to see what training people need.

### 4) Peer-To-Peer Knowledge Sharing

- knowledge is shared frequently among employees.
- Employees share their knowledge and expertise voluntarily.
- Employees share knowledge with people from other divisions.
- The knowledge shared by employees is easy to understand.
- The knowledge shared by employees is accurate.
- The knowledge shared by employees is reliable.
- The knowledge shared by employees is timely.

### 5) Competitive Advantages

#### *Flexibility*

- The company management assurance material and moral support to meet the needs and aspirations of current and future clients.
- The company's management gives staff complete freedom to complete the work entrusted to them.
- The company's management work on develop the employee performance and improve their skills as required by the market of renewable.
- The company's management seeks to know the characteristics of the market for the preparation of strategies and tactics appropriate for any situation possible current and future.
- The relationship between management and employee Features to efficiency and effectiveness in order to complete customer orders.

#### *Responsiveness*

- Our operations system responds rapidly to changes in product volume demanded by customers.
- Our operations system effectively expedites emergency customer orders.
- Our operations system rapidly reconfigures equipment to address demand changes.
- Our operations system rapidly reallocates people to address demand changes.
- Our operations system rapidly changes manufacturing processes to address demand changes.
- Our operations system rapidly adjusts capacity to address demand changes.

## 5. Conclusions and Recommendations

Organizations need the right resources if they want to perform exceptionally well. The organization's greatest asset is its workforce, and organizational knowledge is correlated with employee knowledge and the manner in which employees share this knowledge. As a result, there are four sources of knowledge for employees in an organization: "academic qualification, professional qualifications, training and development, and peer-to-peer knowledge". This study contributes to knowledge by defining the four constructs of the employees' knowledge factors that affect the organizational competitive advantage. In addition, the scales for those variables are proposed as well. Future work is required to empirical examine the model in different contexts.

## References

- Abubakar, O. M., & Odock, S. (2018). EFFECT OF TOTAL QUALITY MANAGEMENT PRACTICES ON OPERATIONAL EFFICIENCY OF CONTAINER DEPOTS IN MOMBASA COUNTY. *European Journal of Business and Strategic Management*, 3(6), 66–84.
- Acemoglu, D., & Restrepo, P. (2018). The race between man and machine: Implications of technology for growth, factor shares, and employment. *American Economic Review*, 108(6), 1488-1542.
- Affran, S., Dza, M., & Buckman, J. (2019). Empirical conceptualization of Customer loyalty on relationship marketing and sustained competitive advantage. *Journal of Research in Marketing*, 10(2), 798-806.
- Agha, S., Alrubaiee, L., & Jamhour, M. (2012). Effect of core competence on competitive advantage and organizational performance. *International Journal of Business and Management*, 7(1), 192.
- Al Mamun, A., Nawi, N. B. C., Ibrahim, M. A. H. Bin, & Muniady, R. (2018). Effect of economic vulnerability on competitive advantages, enterprise performance and sustainability. *Social Sciences*, 7(4), 54.

- Al Shobaki, M. J., & Abu-Naser, S. S. (2017). The Role of the Practice of Excellence Strategies in Education to Achieve Sustainable Competitive Advantage to Institutions of Higher Education-Faculty of Engineering and Information Technology at Al-Azhar University in Gaza a Model.
- Al-Busaidi, K. A., & Olfman, L. (2017). Knowledge sharing through inter-organizational knowledge sharing systems. *VINE Journal of Information and Knowledge Management Systems*.
- Ali, I., Ali, M., Leal-Rodríguez, A. L., & Albort-Morant, G. (2019). The role of knowledge spillovers and cultural intelligence in enhancing expatriate employees' individual and team creativity. *Journal of Business Research*, 101, 561-573.
- Alizadeh, A., Barhate, B., Choudhury, T., & Dirani, K. (2021). Nonprofit organizations and volunteer leadership development: A narrative review with implications for human resource development. *International Journal of HRD Practice Policy and Research*, 5(2).
- Al-Kurdi, O. F., El-Haddadeh, R., & Eldabi, T. (2020). The role of organizational climate in managing knowledge sharing among academics in higher education. *International Journal of Information Management*, 50, 217-227.
- Alsharo, M., Gregg, D., & Ramirez, R. (2017). Virtual team effectiveness: The role of knowledge sharing and trust. *Information & Management*, 54(4), 479-490.
- Arslan, M., & Roudaki, J. (2019). Examining the role of employee engagement in the relationship between organizational cynicism and employee performance. *International Journal of Sociology and Social Policy*.
- Aureli, S., Giampaoli, D., Ciambotti, M., & Bontis, N. (2019). Key factors that improve knowledge-intensive business processes which lead to competitive advantage. *Business Process Management Journal*.
- Azizi, R., Maleki, M., Moradi-Moghadam, M., & Cruz-Machado, V. (2016). The impact of knowledge management practices on supply chain quality management and competitive advantages. *Management and Production Engineering Review*, 7.
- Baporikar, N. (2020). Understanding knowledge management spectrum for SMEs in global scenario. In *Start-Ups and SMEs: Concepts, Methodologies, Tools, and Applications* (pp. 1589-1605). IGI Global.
- Bashirova, M., & Sattarova, A. (2018). The Use of New Teaching and Learning Technologies for Professional Qualification Development in the System of the Initial and Secondary Vocational Education. In *Vocational Teacher Education in Central Asia* (pp. 111-115). Springer, Cham.
- Bell, B. S., Tannenbaum, S. I., Ford, J. K., Noe, R. A., & Kraiger, K. (2017). 100 years of training and development research: What we know and where we should go. *Journal of Applied Psychology*, 102(3), 305.
- Bergman, E. M., & Feser, E. J. (2020). Industrial and regional clusters: concepts and comparative applications.
- Bohalteanu, C. (2016). The current experience and training of Romanian Occupational Health and Safety (OHS) professionals (Doctoral dissertation, Middlesex University).
- Cegliński, P., & Wiśniewska, A. (2016). CSR as a source of competitive advantage: The case study of Polpharma group. *Journal of Corporate Responsibility and Leadership*, 3(4), 9-25.
- Chakroun, B. (2019). National Qualifications Framework and TVET teacher competence frameworks: A neglected dimension of qualifications reforms?. *European Journal of Education*, 54(3), 370-388.
- Chen, H., Chau, P. Y., & Li, W. (2019). The effects of moral disengagement and organizational ethical climate on insiders' information security policy violation behavior. *Information Technology & People*.
- Chiambaretto, P., Massé, D., & Mirc, N. (2019). "All for One and One for All?"-Knowledge broker roles in managing tensions of internal competition: The Ubisoft case. *Research Policy*, 48(3), 584-600.
- Chiu, C. M., Hsu, M. H., & Wang, E. T. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decision support systems*, 42(3), 1872-1888.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Cura, F., & Alani, T. A. (2018). Accreditation Effect on Quality of Education at Business Schools. *International Journal of Social Sciences & Educational Studies*, 4(5), 71.
- Dani, S. (2019). *Strategic Supply Chain Management: Creating Competitive Advantage and Value Through Effective Leadership*. Kogan Page Publishers.
- Daniels, J. (2017). Professional learning in higher education: making good practice relevant. *International Journal for Academic Development*, 22(2), 170-181.
- Dhir, S. (2019). The changing nature of work, leadership, and organizational culture in future ready organizations. *Corporate culture, Management, Leadership, Job redesign, Organizational Behavior, Innovation, Change Management, Human Resources, VUCA*.
- Di Vaio, A., & Varriale, L. (2020). Blockchain technology in supply chain management for sustainable performance: Evidence from the airport industry. *International Journal of Information Management*, 52, 102014.
- Dos Santos, P. L., & Scharfenaker, E. (2019). Competition, self-organization, and social scaling—accounting for the observed distributions of Tobin's  $q$ . *Industrial and Corporate Change*, 28(6), 1587-1610.
- Duffy, J. T., Guiffreda, D. A., Aranedo, M. E., Tetenov, S. M. R., & Fitzgibbons, S. C. (2017). A qualitative study of the experiences of counseling students who participate in mindfulness-based activities in a counseling theory and practice course. *International Journal for the Advancement of Counselling*, 39(1), 28-42.
- Dyer, J., Gregersen, H., & Christensen, C. M. (2019). *Innovator's DNA, Updated, with a New Preface: Mastering the Five Skills of Disruptive Innovators*. Harvard Business Press.
- Eaton, J. S. (2016). The quest for quality and the role, impact and influence of supra-national organizations. *Global Rankings and the Geopolitics of Higher Education*. Routledge, Abingdon, 324-338.
- Eldor, L. (2020). How collective engagement creates competitive advantage for organizations: A business - level model of shared vision, competitive intensity, and service performance. *Journal of Management Studies*, 57(2), 177-209.
- English, V. (2018). Business intelligence as a source of competitive advantage in SMEs: A systematic review.
- Evelina, K. (2018). The impact of proactive corporate social responsibility strategy on competitive advantages. *International Journal of Innovative Technologies in Economy*, 4 (16).
- Falk, T., Kumar, S., & Srigiri, S. (2019). Experimental games for developing institutional capacity to manage common water infrastructure in India. *Agricultural Water Management*, 221, 260-269.
- Ferreira, A. P. V. G. (2016). Training and development in organizations: Start at the Beginning. In *MBA* (pp. 105-121). Springer, Cham.
- Figueiredo, H., Biscaia, R., Rocha, V., & Teixeira, P. (2017). Should we start worrying? Mass higher education, skill demand and the increasingly complex landscape of young graduates' employment. *Studies in Higher Education*, 42(8), 1401-1420.
- Flint, G. D. (2000). What is the meaning of competitive advantage?. *Journal of Competitiveness Studies*, 8(1), 121.
- Forrest, J. Y. L., & Nightingale, J. (2017). Successfully transition into the era of transient competitive advantages. *Northeastern Association of Business, Economics and Technology*, 73.
- Foysal, m. M., & zhen, t. (2019). Performance evaluation of chinese companies across various sectors in bangladesh business and built environment. *European journal of business and innovation research*, 7(3), 68-102.
- Garba, A. D. A. M. U. (2019). Effect of Training and Development on Employee's Performance in Benuue State Internal Revenue Service. *International*

Journal of Contemporary Research and Review, 10(10).

- Gordon, C. S. (2020). The Difference in Satisfaction among Academic Advising Formats for Online College Students.
- Gupta, A. D. (2020). Strategic Human Resource Management: Formulating and Implementing HR Strategies for a Competitive Advantage. CRC Press.
- Hacker, S. (2017). Pleasure, power and technology: Some tales of gender, engineering, and the cooperative workplace (Vol. 5). Routledge.
- Hamadamin, H. H., & Atan, T. (2019). The impact of strategic human resource management practices on competitive advantage sustainability: The mediation of human capital development and employee commitment. *Sustainability*, 11(20), 5782.
- Hameduddin, T., & Fernandez, S. (2019). Employee Engagement as Administrative Reform: Testing the Efficacy of the OPM's Employee Engagement Initiative. *Public Administration Review*, 79(3), 355-369.
- Hameed, Z., Khan, I. U., Sheikh, Z., Islam, T., Rasheed, M. I., & Naeem, R. M. (2019). Organizational justice and knowledge sharing behavior: The role of psychological ownership and perceived organizational support. *Personnel Review*, 48(3), 748-773.
- Haseeb, M., Hussain, H. I., Kot, S., Androniceanu, A., & Jermittiparsert, K. (2019). Role of social and technological challenges in achieving a sustainable competitive advantage and sustainable business performance. *Sustainability*, 11(14), 3811.
- Heredia-Calzado, M., & Duréndez, A. (2019). The influence of knowledge management and professionalization on the use of ERP systems and its effect on the competitive advantages of SMEs. *Enterprise Information Systems*, 13(9), 1245-1274.
- Herrmann, A., Huber, F., & Braunstein, C. (2000). Market-driven product and service design: Bridging the gap between customer needs, quality management, and customer satisfaction. *International Journal of production economics*, 66(1), 77-96.
- Hili, P., Gani, M. U., Hamzah, N., Rahman, Z., & Sjahruddin, H. (2017). Effect of human capital and leadership on institutions performance and competitive advantages. Center for Open Science.
- Holt, L. (2020). Learning to Walk the Walk: Narrative Exploration of Diversity Training for Higher Education Teaching (Doctoral dissertation, University of Missouri-Kansas City).
- Howard, T. C. (2019). Why race and culture matter in schools: Closing the achievement gap in America's classrooms. Teachers College Press.
- Huang, L., Chang, K.-Y., & Yeh, Y.-C. (2020). How Can Travel Agencies Create Sustainable Competitive Advantages? Perspective on Employee Role Stress and Initiative Behavior. *Sustainability*, 12(11), 4557.
- Husti, I., & Mahyarni, M. (2019). Islamic Leadership, Innovation, Competitive Advantages, and Performance of SMEs in Indonesia. *East Asia*, 36(4), 369-383.
- Ibrahim, R., Boerhannoeddin, A., & Bakare, K. K. (2017). The effect of soft skills and training methodology on employee performance. *European Journal of Training and Development*.
- Josephides, L. (Ed.). (2020). Knowledge and ethics in anthropology: Obligations and requirements. Routledge.
- Kang, S., & Na, Y. K. (2020). Effects of Strategy Characteristics for Sustainable Competitive Advantage in Sharing Economy Businesses on Creating Shared Value and Performance. *Sustainability*, 12(4), 1397.
- Kartika, E. W., & Kaihatu, T. S. (2020). The Role of Social Networking on Adaptability and Competitive Advantage: An Empirical Evidence from Small and Medium-sized Enterprises in Restaurant Industry, Surabaya, Indonesia. In *SHS Web of Conferences* (Vol. 76, p. 01008). EDP Sciences.
- Kosaka, M., & Nie, Y. (2020). Shigenobu Nagamori and Nidec Corporation—Realize No. 1 Motor Company Through Developing a Knowledge-Creating Company. In *Entrepreneurship in the Asia-Pacific: Case Studies* (pp. 21-46). Springer, Singapore.
- Kuik, O., Branger, F., & Quirion, P. (2019). Competitive advantage in the renewable energy industry: Evidence from a gravity model. *Renewable Energy*, 131, 472-481.
- Le, M. (2020). Effects of employee development and marketing capacity on competitive advantages: The mediating role of product innovation. *Management Science Letters*, 10(13), 3159-3166.
- Lee, D., & Park, B. (2016). Impact of manufacturing systems on quality management practices, competitive advantages, and operational performance. *International Journal of Productivity and Quality Management*, 19(3), 301-318.
- Mahdi, O. R., Nassar, I. A., & Almsafir, M. K. (2019). Knowledge management processes and sustainable competitive advantage: An empirical examination in private universities. *Journal of Business Research*, 94, 320-334.
- Mikalef, P., Krogstie, J., Pappas, I. O., & Pavlou, P. (2020). Exploring the relationship between big data analytics capability and competitive performance: The mediating roles of dynamic and operational capabilities. *Information & Management*, 57(2), 103169.
- Moore, M., & Fairhurst, A. (2003). Marketing capabilities and firm performance in fashion retailing. *Journal of Fashion Marketing and Management: An International Journal*.
- Mormina, M. (2019). Science, technology and innovation as social goods for development: rethinking research capacity building from sen's capabilities approach. *Science and engineering ethics*, 25(3), 671-692.
- Mosry, M. N., & Raju, V. (2020). Modelling the Knowledge Capacity Factors and Employee Performance. *International Journal of Intellectual Human Resource Management (IJHRM)*, 1(02), 30-38.
- Msallam, A. A., Abu-Naser, S. S., Shobaki, M. J. Al, & Al-Habil, W. I. (2019). Computerized Management Information Systems and Its Relationship to Improving the Job Performance of the Employees of the Palestinian Cellular Telecommunications Company-Jawwal.
- Muda, i., wardani, d. Y., maksum, a., lubis, a. F., bukit, r., & abubakar, e. (2017). The influence of human resources competency and the use of information technology on the quality of local government financial report with regional accounting system as an intervening. *Journal of theoretical & applied information technology*, 95(20).
- Na, Y. K., Kang, S., & Jeong, H. Y. (2019). The effect of market orientation on performance of sharing economy business: Focusing on marketing innovation and sustainable competitive advantage. *Sustainability*, 11(3), 729.
- Nassazi, A. (2013). EFFECTS OF TRAINING ON EMPLOYEE PERFORMANCE . Evidence from Uganda. *Business Economics and Tourism*, 57. Retrieved from <http://thesesus32-kk.lib.helsinki.fi/bitstream/handle/10024/67401/THESIS.pdf?sequence=1>
- Niati, D. R., Siregar, Z. M. E., & Prayoga, Y. (2021). The effect of training on work performance and career development: the role of motivation as intervening variable. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(2), 2385-2393.
- Nowiński, W., Haddoud, M. Y., Lančarić, D., Egerová, D., & Czeglédi, C. (2019). The impact of entrepreneurship education, entrepreneurial self-efficacy and gender on entrepreneurial intentions of university students in the Visegrad countries. *Studies in Higher Education*, 44(2), 361-379.
- Nurtanto, M., Sofyan, H., Pardjono, P., & Suyitno, S. (2020). Development Model for Competency Improvement and National Vocational Qualification Support Frames in Automotive Technology. *International Journal of Evaluation and Research in Education*, 9(1), 168-176.
- Obeidat, D., Yousef, B., Tawalbeh, H. F., & Masa'deh, R. (2018). The Relationship between Human Resource Management (HRM) Practices, Total Quality Management (TQM) Practices and Competitive Advantages. *Total Quality Management (TQM) Practices and Competitive Advantages* (December 12, 2018). *Modern Applied Science*, 12(11).
- Oladokun, S. O., & Gbadegesin, J. T. (2017). Adequacy of core knowledge and soft skills in the performance of professional employees of real estate firms in Nigeria. *Property Management*.
- Phan, H. P., & Ngu, B. H. (2017). Positive psychology: The use of the Framework of Achievement Bests to facilitate personal flourishing. Well-being and Quality of Life. Rijeka, Croatia: Intech: Open Science| Open Minds, 19-33.



- Pinzone, M., Guerci, M., Lettieri, E., & Huisingh, D. (2019). Effects of 'green'training on pro-environmental behaviors and job satisfaction: evidence from the Italian healthcare sector. *Journal of cleaner production*, 226, 221-232.
- Porter, M. E., & Sölvell, Ö. (1998). The role of geography in the process of innovation and the sustainable competitive advantage of firms. *The dynamic firm: The role of technology, strategy, organization, and regions*, 440-457.
- Price, D. W., Biernacki, H., & Nora, L. M. (2018). Can maintenance of certification work? Associations of MOC and improvements in physicians' knowledge and practice. *Academic Medicine*, 93(12), 1872-1881.
- Rumrill Jr, P. D., Minton, D., Stauffer, C., Hendricks, D. J., Sampson, E., Elias, E., ... & Scherer, M. (2019). An Organizational Case Study of a 5-Year Development Project to Promote Cognitive Support Technology Use, Academic Success, and Competitive Employment Among Civilian and Veteran College Students With Traumatic Brain Injuries. *Journal of Applied Rehabilitation Counseling*, 50(1), 57-72.
- Saeidi, P., Saeidi, S. P., Sofian, S., Saeidi, S. P., Nilashi, M., & Mardani, A. (2019). The impact of enterprise risk management on competitive advantage by moderating role of information technology. *Computer Standards & Interfaces*, 63, 67-82.
- Samiei, E., & Habibi, J. (2020). The mutual relation between enterprise resource planning and knowledge management: A review. *Global Journal of Flexible Systems Management*, 21(1), 53-66.
- Sanyal, S., & Hisam, M. W. (2018). Impact of training and development on the performance of employees-A comparative study on select banks in sultanate of Oman. *International Journal of Scientific Research and Management (IJSRM)*, 6(3), 191-198.
- Shen, P., Lees, J. A., Bee, G. C. W., Brown, S. P., & Weiser, J. N. (2019). Pneumococcal quorum sensing drives an asymmetric owner-intruder competitive strategy during carriage via the competence regulon. *Nature microbiology*, 4(1), 198-208.
- Shonubi, A. O., Odunlami, S. A., & Akintaro, A. A. (2020). Effect of Knowledge Sharing on Organizational Performance: A Study of Kresta Laurel Company in Lagos State, Nigeria. *LAPAI INTERNATIONAL JOURNAL OF MANAGEMENT AND SOCIAL SCIENCES*, 12(2), 26-41.
- Siayah, S., Kurniawati, N. K., & Setiawan, A. R. (2020). Six Main Principles for Quality Learning based on "Ta'lim al-Muta'allim Toriq al-Ta'allum".
- Singh, S. K., Chen, J., Del Giudice, M., & El-Kassar, A.-N. (2019). Environmental ethics, environmental performance, and competitive advantage: role of environmental training. *Technological Forecasting and Social Change*, 146, 203-211.
- Sligo, J., Gauld, R., Roberts, V., & Villa, L. (2017). A literature review for large-scale health information system project planning, implementation and evaluation. *International journal of medical informatics*, 97, 86-97.
- Somers, M. A., Cabus, S. J., Groot, W., & van den Brink, H. M. (2019). Horizontal mismatch between employment and field of education: Evidence from a systematic literature review. *Journal of Economic Surveys*, 33(2), 567-603.
- Sunarsi, D. (2020). The Analysis of The Work Environmental and Organizational Cultural Impact on The Performance and Implication of The Work Satisfaction. *Jurnal Ilmiah Ilmu Administrasi Publik*, 9(2), 237-246.
- Sutha, J. (2016). Employees' participation in non-mandatory training and its future research direction-Literature review. *International Journal of Engineering and Management Research (IJEMR)*, 6(1), 265-273.
- Sutrisna, M., Pellicer, E., Torres-Machi, C., & Picornell, M. (2020). Exploring earned value management in the Spanish construction industry as a pathway to competitive advantage. *International Journal of Construction Management*, 20(1), 1-12.
- Sweis, R., Abualsoudos, A., Magableh, M., Alamayreh, E., Sukkari, L., & Alawneh, A. (2020). THE EFFECT OF TOTAL QUALITY MANAGEMENT PRACTICES ON THE ACADEMIC PERFORMANCE OF ISO: 9001 CERTIFIED PRIVATE SCHOOLS: THE CASE OF JORDAN. *International Journal of Information, Business and Management*, 12(1), 113-140.
- Tangaraja, G., Rasdi, R. M., Samah, B. A., & Ismail, M. (2016). Knowledge sharing is knowledge transfer: a misconception in the literature. *Journal of Knowledge Management*.
- Theobald, E. J., Hill, M. J., Tran, E., Agrawal, S., Arroyo, E. N., Behling, S., ... & Grummer, J. A. (2020). Active learning narrows achievement gaps for underrepresented students in undergraduate science, technology, engineering, and math. *Proceedings of the National Academy of Sciences*, 117(12), 6476-6483.
- Thomas, n. (2019). Managing professionalism in teacher education: issues of teacher identity development in cameroon. *European journal of education studies*.
- Tomlinson, M. (2016). The impact of market-driven higher education on student-university relations: Investing, consuming and competing. *Higher Education Policy*, 29(2), 149-166.
- Uddin, M. J., Luva, R. H., & Hossian, S. M. M. (2013). Impact of organizational culture on employee performance and productivity: A case study of telecommunication sector in Bangladesh. *International Journal of Business and Management*, 8(2), 63.
- Wang, C., & Hu, Q. (2020). Knowledge sharing in supply chain networks: Effects of collaborative innovation activities and capability on innovation performance. *Technovation*, 94, 102010.
- Wang, Z., & Sarkis, J. (2017). Corporate social responsibility governance, outcomes, and financial performance. *Journal of Cleaner Production*, 162, 1607-1616.
- Wilcox, A. M., & NicDaeid, N. (2018). Jurors' perceptions of forensic science expert witnesses: Experience, qualifications, testimony style and credibility. *Forensic science international*, 291, 100-108.
- Zainol, N. R., & Al Mamun, A. (2018). Entrepreneurial competency, competitive advantage and performance of informal women micro-entrepreneurs in Kelantan, Malaysia. *Journal of Enterprising Communities: People and Places in the Global Economy*.