

---

## The Effects of Intellectual Capital and Knowledge Management Processes on Dynamic Capabilities of the Organizations

---

REBER ANWAR MUHAMMAD<sup>1</sup>, NIHAT SALMA<sup>2</sup>

<sup>1</sup>Tishk International University, Business and Management Department.

<sup>2</sup>Department of Languages, Faculty of Education, Tishk International University, Erbil, Iraq.  
Email: reberhabib321@gmail.com<sup>1</sup>, nihat.salma@tiu.edu.iq<sup>2</sup>

---

**Abstract:** Intellectual capital and knowledge management explain the company's performance. It is a very important dimension to improve the company's dynamic capabilities and performance based on those factors. In addition, the aim of this paper is to investigate the relationship between intellectual capital, knowledge capacity, and dynamic capability, also the relationship between intellectual capital and knowledge capacity as well. To do these 178 data have been conducted across companies in the region. Based on the result, it has been observed that intellectual capital has a strong and significant impact on dynamic capabilities, also knowledge capacity has a significant impact on dynamic capability, eventually intellectual capital has also a significant impact on dynamic capability. It is suggested that the company owners and top managers should provide healthy and enough knowledge and intellectual capital.

**Keywords:** intellectual capital, knowledge management (capacity), dynamic capability, human capital, structural capital, relational capital.

---

### INTRODUCTION

In today's highly competitive business environment, knowledge is widely recognized for its importance as a critical resource for competitive advantage of firms, to do that Knowledge is a key to effective competition. intangible resources and competencies are crucial for firms to survive in dynamic environments (Subramaniam and Youndt, 2005a, b; Teece et al., 1997). In other word knowledge management can be seen as, the systematic underpinning, conservatism, measurement and optimization of the organization's knowledge economies.

To cope with the rapid changes in the environment, firms should need to focus on internal effectiveness of the organization that they can adapt to external environment effectively as updating current organization's culture, structure and procedures (Budur et al., 2018; Budur and Poturak, 2021a). Knowledge management is to an extent an issue of awareness (Demir et al., 2021). It nonetheless requires an infrastructure cultural, operational and technical. A Chief Knowledge Officer needs to be appointed to manage the company's knowledge assets in much the same way as the CFO (chief financial officer) manages its capital. According to the knowledge management there are four main aspects of knowledge management, which are Individual knowledge management, Team knowledge management, organizational knowledge management, and Inter-Organizational Knowledge Management (Ron Young, 2010).

In general, knowledge processes can be regarded as the process of interaction, communication and coordination of knowledge or expertise (Haas and Hansen, 2007). It comprises a set of shared understandings related to providing employees with access to relevant information and using existing knowledge within organizations (Lin, 2007b; Demir and Budur, 2019). Another dimension that research explains is knowledge storage or knowledge transfer, Knowledge transfer within an organization or between organizations has become a hotly debated topic within information and knowledge management literatures. Knowledge transfer has actually risen to the top of many corporate agendas because knowledge is crucial for a firm to gain and sustain competitive advantage. (Cohen and Levinthal, 1990; Albino, Claudio, and Schiuma, 1990)

As Dunn (1983) points put, to improve the practical consequences of using knowledge, we need to examine the complex processes of knowledge utilization. To the extent that utilization is Rich considered to be almost exclusively a process, one should ask: towards what end is the process oriented is it oriented towards some kind of instrumental change, towards planning, towards designing services for consumers or different users, or towards generally facilitating effective problem solving? From a process perspective, it is equally important to determine the extent to which the usage of facts is a priori good independent of a specific outcome (Ali, 2021; Demir et al., 2020).

Intellectual capital takes three basic forms: human capital, structural capital, and customer and relational capital. Human capital includes knowledge, skills, and abilities of employees. Human capital is an organization's combined human capability for solving business problems. Human capital is inherent in people and cannot be

owned by organizations (Marginson, 2019). Therefore, human capital can leave an organization when people leave. Human capital also encompasses how effectively an organization uses its people resources as measured by creativity and innovation (Budur et al., 2021; Rashid et al., 2020). Structural capital is everything in an organization that supports employees (human capital) in their work. Structural capital is the supportive infrastructure that enables human capital to function (Benevene, P., and Cortini, M. 2010). Structural capital is owned by an organization and remains with an organization even when people leave. Structural capital includes such traditional things as buildings, hardware, software, processes, patents, and trademarks. In addition, structural capital includes such things as the organization's image, organization, information system, and proprietary databases. So far, they have vital importance in shaping the external effectiveness of the organization in the customer perception and market effectiveness (Budur, 2020; Torlak et al., 2021a). Relational capital is the strength and loyalty of customer relations. Customer satisfaction, repeat business, financial well-being, and price sensitivity may be used as indicators of customer capital (Budur, 2018b; Demir 2019; Torlak et al., 2019). The notion that customer capital is separate from human and structural capital indicates its central importance to an organization's worth. The relationship with customers is distinct from other relationships either within or outside an organization (Budur et al., 2019; Demir et al., 2019).

Accordingly, the aim of this paper is to investigate how the knowledge management with the dimension and intellectual capital effect on organization performance, it discussed a lot about knowledge management and it is time to know how intellectual capital has impact on organizational performance, Intellectual capital is becoming the preeminent resource for creating economic wealth. Tangible assets such as property, plant, and equipment continue to be important factors in the production of both goods and services. However, their relative importance has decreased through time as the importance of intangible, knowledge-based assets has increased. This shift in importance has raised a number of questions critical for managing intellectual capital. How does an organization assess the value of such things as brand names, trade secrets, production processes, distribution channels, and work-related competencies? What are the most effective management processes for maximizing the yield from intellectual assets?

## LITERATURE VIEW

### Importance of Knowledge Management at Organizations

As mentioned before knowledge is the valuable asset of any company that used to improve the perception of the employees for developments (Budur, 2018a; Torlak et al., 2021b). KM refers to different processes. In the current literature there are some various classification. However, current paper classifies KM into four main subjects, which are individual level, team level, organizational level and inter organizational level knowledge management processes.

The first one is individual or personal knowledge management refers to a range of organizations have implemented a KM method for personal knowledge management. This is a 'bottom up' method (Walton, 2012) and comes from the belief that by improving the personal ability of employees to better identify, capture, store, share and apply their personal knowledge, this will inevitably result, as an automatic outcome, in better knowledge management at the team, organizational, and inter-organizational levels (Ali and Anwar, 2021). The other driver for personal knowledge management is the growing need, for many individuals and organizations, to better tackle 'information overload' and make more sense of our world, to develop more focus, to become more proactive in task prioritization and decision making, to better manage time and projects. This also comes from the realization that this will reduce stress, increase personal creativity and productivity, and lead to greatly improved work-life balance (Tajeddini, 2016). The personal, or individual level refers to the personal knowledge, capabilities, experiences, competencies and personal development issues for each individual knowledge worker. Therefore, the strategies, methods and tools used for this dimension are at the personal level, and include methods and tools to personally capture, learn, interpret, envision, analyses, synthesize, communicate, create, share and apply (Ali & Sagsan, 2020). This is how personal or individual knowledge management works and how improves in any organization.

When we move to the second aspect which is Team Knowledge Management, refers to how you gather, store, and organize information within your company (Ali and Bahadur, 2020; Ali, 2021). It's how you capture knowledge from one person or team and how you make that knowledge accessible to the rest of your organization. And a range of organizations have implemented a KM method for team knowledge management. This is an approach or method that comes from the realization that teams are 'the key knowledge work units' or knowledge engines of the organization.

Recognized that a team that 'collaborates' well transfers knowledge between members much faster, and, as importantly, is a powerful creator of new knowledge. Project team leaders can now produce new knowledge as a key deliverable, as well as, and alongside the traditional project deliverables. Team knowledge management, therefore, is based on 'Share' or 'Pull' models of information and knowledge transfer, as opposed to the overused 'Send' or 'Push' models that create information overload. It is also based on team knowledge plans. With the introduction of powerful collaborative team technologies, in the late 1980's early 1990's, it became

possible, for the first time, for more effective collaborative virtual and cross functional team working across organizations and across the globe.

Furthermore, when it comes to the third aspect of knowledge management is Organizational Knowledge Management. Most organizations have first embarked on an 'organizational knowledge management' approach (Jennex et al., 2003). The intention being to introduce a KM strategy and a supporting infrastructure for better creating, storing, sharing and apply knowledge across the entire organization. This approach is primarily a 'top-down approach' (Butt, Ahmad, 2019). It starts by identifying the key knowledge assets, or critical knowledge assets of the organization that are needed to achieve its objectives, and then sets out to develop and leverage those assets as fast as possible. To do this, the organization sets up an organization-wide infrastructure to enable the identification, capturing, storing, sharing and applying of knowledge, retention and the re-use of knowledge assets. More continuous and collective processes, to capture new learning's and ideas before, during, and after work events, and then turn them into good practice and knowledge repositories are implemented. Organization wide expert locators, and communities of practice, to accelerate knowledge flows, are developed.

Nonetheless, the last one is Inter-Organizational Knowledge Management (Ngai, Jin, and Liang, 2008). The level of inter-organizational management refers to inter-enterprise relationships and knowledge value networks and partnerships. Hence, knowledge networks with customers, suppliers, partners, competitors, sub-contractors, stakeholders etc. Some organizations have embarked on these relationships at a global level, for example, inter-governmental agencies, United Nations agencies, regional knowledge networks and knowledge clusters, and the development of common national knowledge platforms etc. Inter-Organizational knowledge management is based on the realization that the most valuable knowledge sources and resources can be, and probably are, outside your own organization. Commercial organizations and educational establishments are increasingly co-partnering with customers, suppliers and even competitors, to collaborate, share and develop new knowledge and innovative products and services, together as one (Demir 2020).

### **Importance of Intellectual Capital at Organizations**

Companies that use their knowledge as a source of competitive advantage are called knowledge organizations. Knowledge organizations derive their profits from the commercialization of the knowledge created by their human resource their employees (Choo and Alvarenga, 2010). In some cases, knowledge organizations differentiate themselves from the competition through their knowledge. Knowledge organizations are found in value-adding industries. In the product field they include computer companies and other advanced-technology firms, software companies, and manufacturers of new or differentiated products. Knowledge organizations in the services industry include law firms, consulting firms, financial services firms, and media companies (newspaper, periodicals, television, and radio).

An argument of intellectual capital is best understood if one has a clear understanding of 'knowledge' in the business context. Business knowledge generally is of two kinds: that which is codified and that which is tacit. This distinction is very important strategically. Knowledge that is codified can be written down, transferred, and shared. Codified business knowledge is definable and can be protected by the legal system, whether as trade secrets, patents, copyrights, or semiconductor masks. If not protected by intellectual property law, codified information is often easy to imitate. In contrast, tacit knowledge, or know-how is by nature difficult to describe. It can be demonstrated but rarely codified. Tacit knowledge gets transferred through demonstration and on-the-job training. Process knowledge, in manufacturing firms in particular, is often tacit. Relationship knowledge, often found in service firms, is also usually tacit. As with many things, the tacit knowledge position can be both an advantage and a disadvantage. Because it is difficult to transfer, tacit know-how is inherently protected. Once transferred, however, there are few means for the original owner to re-assert ownership. (Tsoukas, H, 2005).

The term 'intellectual capital' was first published by John Kenneth Galbraith. His concept of the term incorporated a degree of 'intellectual action' rather than 'intellect as pure intellect'. The implication of this view is that intellectual capital is likely to be a dynamic rather than a static form of capital.

We prefer to define intellectual capital as knowledge as paper has mentioned a lot about knowledge that can be converted into value. This definition is so wide, encompassing inventions, ideas, general knowledge, designs, computer programs, data processes, and publications. It is not limited to technological innovations, or to just those forms of intellectual property identified by the law (e.g., patents, trademarks, trade secrets) (Hughes, 1988) For the manager, intellectual capital (IC) has two major components: human resources and structural capital (including intellectual assets). The distinction between these two kinds of IC is of particular importance to owners of knowledge companies. Unlike human resources, which are not interchangeable and cannot be owned by shareholders, intellectual assets are and can be. For this reason, it is clearly to the advantage of the knowledge firm to transform the innovations produced by its human resource into intellectual assets to which the firm can assert rights of ownership (Durmaz, 2017). One major task of IC managers is to transform human resource assets into intellectual assets. To facilitate this transformation, it is important to understand the differences between human and intellectual assets. Figure 2 shows how parts of a firm's IC are made up of knowhow (tacit knowledge) and intellectual assets (codified knowledge).

The assessment in intellectual capital through human resources of the firm that may be defined as the collective capabilities of employees to solve customer problems (Storey, 2016) The firm-wide human resource is the knowhow and institutional memory about topics of importance to the company. This resource includes the collective experience, skills, and general know-how of all of the firm's employees. It is a resource because it can generate value for the company (Mohammed et al., 2020), yet it would be difficult for the company to deliver this value without the employees themselves. For example, a law firm might count its staff of lawyers as its primary human resource. The lawyers appear in court and advise clients on legal matters. It is difficult to see how a law firm could provide such legal services to its clients without the carrier of skills, the lawyer.

Complementary business assets are structural capital assets of the firm used to create value in the commercialization process (Swink & Nair, 2007). Typically, for knowledge companies, the business assets of the firm complement the innovations developed by the firm's human capital. These complementary business assets typically include processing facilities, distribution networks, prospect lists, supplier networks, service forces, and external organization capabilities (Demir 2020). Complementary assets may be thought of as the string of assets through which the technology must be processed in order to reach the customer (Budur and Demir, 2019; Budur and Poturak, 2021b) Obvious complementary assets are processing capabilities, storage capabilities, relationship networks, and sales outlets. Complementary assets could also be other complementary technologies, prospect lists, trademarks, or market relationships. No matter how exciting an intellectual asset itself may be, it will have little commercial value unless paired with the appropriate complementary assets.

With this definition of complementary assets, it is now possible to more fully describe the knowledge firm in terms that allow one to contemplate all of the sources of value developed by its intellectual and structural capital (Feng et al., 2012; Poturak et al., 2020). As Figure 5 shows, the intellectual capital of the firm has four major elements in its make-up: human capital, structural capital, complementary business assets, and intellectual property (Faeq, 2020). A knowledge company's human capital is enabled by the firm's structural capital, which includes both tangible and intangible assets. Indeed, that portion of the firm's intellectual assets pertaining to business and administrative infrastructure may be viewed as an intangible element of the structural capital. The firm's structural capital includes as part of its tangible assets the business assets that complement the innovations produced by the IC. These complementary business assets not only process, refine and bring innovations to market, they also add value and bring profits to the firm themselves.

### **Measuring Intellectual Capital**

There are two general methods for measuring intellectual capital. The first method is to do a component-by-component evaluation. This includes using units of measure appropriate for each component. For example, market share, the value of patents, and the number of work-related competencies each have unique units of measure (Baldeaux et al., 2012). In addition, different measures have different relevance and usefulness at different levels in an organization. For example, quantity measures are usually more relevant at the work unit level and financial measures are usually more relevant at the organization level. To be effective, all of these measures, whatever the unit of measure or wherever used in an organization, must be aligned so they reflect a common understanding of purpose and direction when looking at the organization as a whole.

The second method is to measure the value of intellectual assets in financial terms at the organization level without reference to individual components of intellectual capital. Shareholder value is a key indicator in today's economy of how effectively managers employ intellectual and other assets (Winandy and Lebow, 2007). Therefore, measures expressed in financial terms that take into account the synergistic effect of intellectual assets at the organization level provide a key measure of progress and value.

Eventually found out and see that there is a growing awareness that intellectual capital is a key asset for success in today's economic environment. Intellectual capital is not just data or information in files and databases. It comprises all useful knowledge in whatever form in the organization. Intellectual capital is critically important in knowledge-based organizations and is becoming increasingly important in every other type of organization (Leon, 2013). Therefore, it is critically important that intellectual assets be well understood and properly managed if organizations are to compete successfully in today's world economy. Effective management of intellectual capital begins with understanding. For this reason, this paper has provided a definition of intellectual capital to help managers understand the breadth of management requirements. Several models for classifying the components of intellectual capital were then presented so management might understand the depth of management requirements (Abdulla et al., 2020; Kamal and Shawkat, 2020). Finally, several measurement schemes were presented showing how intellectual capital can be viewed at both the component-by-component and organization levels. Management of intellectual capital is in its infancy, but interest is growing. Models and measurements are being developed with enthusiastic experimentation. The indication is that every organization should begin their quest for understanding and expertise in managing the preeminent asset for creating wealth in the future intellectual capital.

## METHODOLOGY

This section is going to explain the methods and methodologies that have been used. The purpose of this project is to realize of how employee’s perspectives and how the company efficiently use the intellectual capital and knowledge management for the success of the organization. In addition, to understand how company can be evaluated the company performance. Moreover, the paper helps the company to see how they are performing good, or anything missed in order to come over to the problems.

### Measures

The questionnaire has 31 questions and consist of mainly three dimensions. Intellectual capital has been investigated through 14 questions, knowledge management capacity got 9 questions, and dynamic capabilities have been evaluated through 8 questions. The items of the questionnaire have been adopted from Sing and Rau (2016). Lastly, respondents have assessed the items via Likert scale which 1 represented “strongly disagree” and 5 represented “strongly agree”.

### Sampling and Demographics of the Study

178 data have been collected from various firms of Sulaymaniyah by the questionnaire survey made of 31 questions and we have conducted these questions to the one that is working on a company in certain position. We have distributed as a paper surveys to be field and after that checking the questionnaires to see if there are any inappropriate survey results which have been excluded from the analyses. For this method as a post graduate student composed to collect data from many people that they are employed to see how they are really doing great performance in terms of intellectual capital and knowledge management.

The demographic information can be seen as the table shows.

**Table 1: demographic information**

<b>Education</b>	<b>Proportion (%)</b>
Master and PhD Degree	9.6%
Bachelor's Degree	64.4%
University student	5.6%
High scholl or less	14.6%
Institute	5.6%
<b>Experience</b>	<b>Proportion (%)</b>
Less than one year	3.9%
1 to 3 years	38.2%
4 to 6 years	35.4%
7-9 years	14%
More than 9 years	8.4%
<b>Position</b>	<b>Proportion (%)</b>
Employee	66.9%
Manager	7.3%
Supervisor	20.2%
Company owner	1,7%
Other	3.9%

According to the table that shows 9.6% percent are those who have master’s degree or PhD holders, but the majority of them who has completed bachelor’s degree which shows 64.4% percent. The majority of them were experienced between 3- and 6-years’ experience. And the most of them are in the employee position which shows 66.9% percent and 20.2% were supervisor.

### Research findings

Hypothesis of the study

H1 Intellectual capital has positive affect on the dynamic capability of the company

H2 Knowledge management capacity has positive affect on dynamic capabilities

H3 Intellectual capital has positive affect on knowledge management capacity

**Table 2: reliability test based on Cronbach alpha methodology**

	<b>Reliability</b>	<b>Item</b>
Intellectual Capital	0.87	14
Knowledge Capability	0.89	9

Dynamic Capability	0.83	8
--------------------	------	---

Table above shows the reliability analysis results. The analysis was conducted using Cronbach alpha methodology. For each dimension, Cronbach alpha was tested. It is expected for each dimension Cronbach alpha would hold minimally 0.83 in order to consider the dimension as reliable. In this context, reliability can be defined as the same question will obtain the same data in case they are asked to the same people in the same conditions. When the table is observed, it was seen that each dimension of the questionnaire held Cronbach alpha above 0.83. However, the dimension held value between 0.83 and 0.89. Hence, it can be concluded that the questionnaire and the data are reliable enough to continue with the further analysis.

**Table 3: Descriptive Statistics**

Descriptive Statistics			
	Mean	Std. Deviation	N
IntCap	4.2107	0.54972	178
Knw	4.2447	0.61273	178
DYn	4.0808	0.64705	178

Based on the results that have been shown that the intellectual capital, knowledge management and dynamic capabilities are above the average. Means that when a company uses the intellectual capital and knowledge management in appropriate manner, they can increase the dynamic capabilities as well.

**Table 4: correlation findings**

	IntCap	Knw	DYn
<b>intellectual capital</b>	1		
<b>knowledge capacity</b>	.832**	1	
<b>dynamic capability</b>	.832**	.835**	1
N	178	178	178

Correlation analysis is a mathematical method used to assess the significance of a relationship between factors and dimensions. With a correlation above 0.05 indicates a strong relationship between dependent and independent variables. As shown above there is a strong relationship between intellectual capital and dynamic capability, and a strong relationship between knowledge capacity and dynamic capability.

**Table 5: regression results**

independent variables	dependent variable	adjusted R square	coefficient's value	T taste	result
intellectual capital	dynamic capability	0.65	0.446	6.677	accepted
knowledge capacity	dynamic capability	0.65	0.464	6.936	accepted
intellectual capital	dynamic capability	0.63	0.83	19.86	accepted

According to the regression analysis which is a valid method to determine how hypothesized factors affect each other. In other meaning how independent dimensions influence the dependent dimension (Hamid and Durmaz, 2021). Further, the T-Stat demonstrates the strength of these relationships. In the above table, intellectual capital and knowledge capacity have positive significant impact on dynamic capability, intellectual capital (6.677), knowledge management (6.936). Besides, the intellectual capital has positive and significant impact on knowledge management capacity (19.86) respectively.

## CONCLUSION

The aim of this paper was to investigate the impacts of intellectual capital and knowledge management capacity on dynamic capabilities. To do this a survey questionnaire has been arranged and applied at the regional companies. As a result 178 data have been conducted and evaluated through correlation and regression analysis, in conclusion it has been observed that the intellectual capital and knowledge capacity positively leverages on dynamic capability, in addition, the intellectual capital also positively leverages on knowledge capacity.

## Recommendations

Based on the results of this project company owner and the top managers should provide a good enough intellectual capital and knowledge capacity as well, in order to increase and push the dynamic capabilities the employees have to receive enough information and intellectual capital knowledge. Especially, the intellectual

capital has strong positive and significant impact on knowledge capacity. Since, the knowledge capacity has a vital importance in the effectiveness and success of the environment company performance. Top managers should always search for various alternatives to support intellectual capital and knowledge capacity to improve the dynamic capabilities in the company atmosphere.

## REFERENCES

1. Abdulla, N., Wrya, H., & Durmaz, O. (2020). Green Product Perception in Kurdistan Region of Iraq. *Black Sea Journal of Management and Marketing*, 1(1), 1-15.
2. Ali, B. J., & Anwar, G. (2021). A study of knowledge management alignment with production management: A study of carpet manufacture in Kurdistan region of Iraq. *International Journal of English Literature and Social Sciences*, 6(2), 346–360. <https://dx.doi.org/10.22161/ijels.62.51>
3. Ali, S. H. (2021). "The Moderating Effect of Ethical Leadership between Psychological Ownership of Knowledge and Knowledge Hiding: An Empirical Study on the Public Universities in Northern Iraq." *Revista Argentina de Clínica Psicológica* 30(2): 178.
4. Ali, S. H., & Sagsan, M. (2020, December). The Mediating role of Knowledge-Oriented Leadership Between Bureaucratic Culture and Knowledge Creation: The case of Public Universities in Northern Iraq. In *European Conference on Knowledge Management* (pp. 37-XIV). Academic Conferences International Limited.
5. Baldeaux, J., Dick, J., Leobacher, G., Nuyens, D., & Pillichshammer, F. (2012). Efficient calculation of the worst-case error and (fast) component-by-component construction of higher order polynomial lattice rules. *Numerical Algorithms*, 59(3), 403-431.
6. Benevene, P., & Cortini, M. (2010). Interaction between structural capital and human capital in Italian NPOs: Leadership, organizational culture and human resource management. *Journal of Intellectual Capital*, 11(2), 123-139.
7. Brooking, Annie (1996), *Intellectual Capital: Core Asset for the Third Millennium Enterprise*, International Thomson Business Press, New York.
8. Budur, T. (2018a). The impact of Al-Ghazali's virtues on organizational commitment and performance: A case Study at private education institutions in Kurdistan Region of Iraq. *Icabeq, Erbil-Iraq*, 2, p21.
9. Budur, T. (2018b). Analytic Hierarchy Process to Evaluate Corporate Image, Trust, and Switching Cost of GSM Operators: A Case of Kurdistan Region of Iraq. *International Journal of Social Sciences & Educational Studies*, 5(2), 241-250
10. Budur, T. (2020). Impact of Transformational Leadership on Customer Satisfaction: Mediating effects of Employee Performance and Organizational Citizenship Behaviors. (Unpublished doctoral dissertation). International Burch University.
11. Budur, T., & Demir, A. (2019a). Leadership effects on employee perception about CSR in Kurdistan Region of Iraq. *International Journal of Social Sciences & Educational Studies*, 5(4), 184-192.
12. Budur, T., & Demir, A. (2019b). Leadership perceptions based on gender, experience, and education. *International Journal of Social Sciences & Educational Studies*, 6(1), 142–154.
13. Budur, T., & Poturak, M. (2021a). Transformational leadership and its impact on customer satisfaction. Measuring mediating effects of organisational citizenship behaviours. *Middle East Journal of Management*, 8(1), 67-91.
14. Budur, T., & Poturak, M. (2021b). Employee Performance and Customer Loyalty: Mediation effect of Customer Satisfaction. *Middle East Journal of Management*.
15. Budur, T., Demir, A., & Cura, F. (2021). University Readiness to Online Education during Covid-19 Pandemic. *International Journal of Social Sciences and Educational Studies*, 8(1), 180-200.
16. Budur, T., Faraj, K. M., & Karim, L. A. (2019). Benchmarking operations strategies via hybrid model: A case study of café-restaurant sector, 8, 842–854.
17. Budur, T., Rashid, C. A., & Poturak, M. (2018). Students perceptions on university selection, decision making process: A case study in Kurdistan Region of Iraq. *International Journal of Social Sciences & Educational Studies*, 5(1), 133–144.
18. Butt, A. S., & Ahmad, A. B. (2019). Are there any antecedents of top-down knowledge hiding in firms? Evidence from the United Arab Emirates. *Journal of Knowledge Management*.
19. Capello, R., & Faggian, A. (2005). Collective learning and relational capital in local innovation processes. *Regional studies*, 39(1), 75-87.
20. Choo, C. W., & de Alvarenga Neto, R. C. D. (2010). Beyond the ba: managing enabling contexts in knowledge organizations. *Journal of Knowledge Management*.
21. Demir A, Shawkat S, Majeed BN, Budur T. (2019). Fuzzy AHP and VIKOR to select best location for bank investment: case study in Kurdistan Region of Iraq. In *Effective Investments on Capital Markets*, Tarczyn'sk W, Nermend K (eds). Springer: Cham; 485-510.

22. Demir, A. (2019). A Benchmarking of service quality in telecommunication services: Case study in Kurdistan Region of Iraq. *International Journal of Social Sciences & Educational Studies*, 5(3), 216-231.
23. Demir, A. (2019). THE IMPACT OF STRATEGIC OPERATIONS MANAGEMENT DECISIONS ON SHOPPERS'WELLBEING. *Asian Academy of Management Journal*, 24(1).
24. Demir, A. (2020). Impact of internal marketing on the customer perceptions in SMEs. *International Journal of Services and Operations Management*, 10.
25. Demir, A. (2020). Inter-continental review for diffusion rate and internal-external benefits of ISO 9000 QMS. *International Journal of Productivity and Quality Management*, 10.
26. Demir, A., & Budur, T. (2019). Roles of leadership styles in corporate social responsibility to non-governmental organizations (NGOs). *International Journal of Social Sciences & Educational Studies*, 5(4), 174-183.
27. Demir, A., Budur, T., & Heshmati, A. (2020). Antecedents of trust, corporate image, and switching costs: a case in telecommunication services in the Kurdistan region of Iraq. *International Journal of Mobile Communications*, 19(1), 53-74.
28. Demir, A., Budur, T., Hiwa, M., & Heshmati, A. (2021). Links between Knowledge Management and Organizational Sustainability: Does the ISO 9001 certification have an effect? *Knowledge Management Research & Practice (TKMR)*, Doi: 10.1080/14778238.2020.1860663
29. Demir, A., Maroof, L., Khan, N. U. S., & Ali, B. J. (2020). The role of E-service quality in shaping online meeting platforms: a case study from higher education sector. *Journal of Applied Research in Higher Education*.
30. Duma, W., 1983. Measuring Knowledge Use. *Knowledge*, vol. 5:120-133. Feldman, M. and J. March (1981). Decision in Organizations and Theories of Choice. In: A. Van de Ven and W.J. Joyce (eds.) *Prescripts on Organizational Design and Performance*. New York: John Wiley.
31. Durmaz, O. (2017). Investigation of the motivation parameters in health care establishments. *International Journal of Social Sciences & Educational Studies*, 3(4), 44-53.
32. Edvinsson, L., & Sullivan, P. (1996). Developing a model for managing intellectual capital. *European management journal*, 14(4), 356-364.
33. Edvinsson, Leif and Michael S. Malone (1997), *Intellectual Capital: Realizing Your Company's True Value by Finding Its Hidden Roots*, HarperCollins Publishers, Inc., New York.
34. Faeg, M. (2020). Performance Evaluation Criteria Development Process for Academic Staff at Universities. *Black Sea Journal of Management and Marketing*, 1(1), 59-70.
35. Feng, T., Sun, L., Zhu, C., & Sohal, A. S. (2012). Customer orientation for decreasing time-to-market of new products: IT implementation as a complementary asset. *Industrial Marketing Management*, 41(6), 929-939.
36. Haas, M.R. and Hansen, M.T. (2007), "Different knowledge, different benefits: toward a productivity perspective on knowledge sharing in organizations", *Strategic Management Journal*, Vol. 28 No. 11, pp. 1133-1153.
37. Hamid, D., & Durmaz, O. (2021). Organizational Culture Impact on Employee Innovative Behaviors in Kurdistan. *Black Sea Journal of Management and Marketing*, 2(1), 63-72.
38. Hamid, D., & Durmaz, O. (2021). Organizational culture impact on employee innovative behaviors in Kurdistan. *Black Sea Journal of Management and Marketing*, 2(1), 63-72.
39. Hughes, J. (1988). The philosophy of intellectual property. *Geo. LJ*, 77, 287.
40. J. Johannesen, B. Olsen, and J. Olaisen, "Intellectual capital as a holistic management philosophy: A theoretical perspective," *Int. J. Inf. Manag.*, vol. 25, pp. 151-171, 2005.
41. Jasimuddin, S. M. (2005). An integration of knowledge transfer and knowledge storage: an holistic approach. *Comput Sci Eng*, 18(1), 37-49.
42. Jennex, M. E., Olfman, L., & Addo, T. B. (2003, January). The need for an organizational knowledge management. In *36th Annual Hawaii International Conference on System Sciences, 2003. Proceedings of the* (pp. 9-pp). IEEE.
43. Kamal, T., & Shawkat, S. (2020). The Impact of Dynamic Capabilities on Knowledge Management in Kurdistan Region of Iraq. *Black Sea Journal of Management and Marketing*, 1(1), 41-48.
44. Kuhn, D., Garcia-Mila, M., Zohar, A., Andersen, C., White, S. H., Klahr, D., & Carver, S. M. (1995). Strategies of knowledge acquisition. *Monographs of the society for research in child development*, i-157.
45. L. Argote, and P. Ingram, "Knowledge transfer: a basis for competitive advantage in firms". *Organizational Behavior and Human Decision Processes*, 82(1), 2000, pp. 150-169.
46. Leon, R. D. (2013). From the sustainable organization to sustainable knowledge-based organization. *Economic Insights-Trends & Challenges*, 65(2).
47. Lin, H.F. (2007b), "Knowledge sharing and firm innovation capability: an empirical study", *International Journal of Manpower*, Vol. 28 Nos 3-4, pp. 315-332.
48. Marginson, S. (2019). Limitations of human capital theory. *Studies in Higher Education*, 44(2), 287-301.

49. Mohammed, S. S., Suleyman, C., & Taylan, B. (2020). Burnout determinants and consequences among university lecturers. *Amazonia Investiga*, 9(27), 13-24.
50. Ngai, E. W., Jin, C., & Liang, T. (2008). A qualitative study of inter-organizational knowledge management in complex products and systems development. *R&d Management*, 38(4), 421-440.
51. Poturak, M., Mekić, E., Hadžiahmetović, N., & Budur, T. (2020). Effectiveness of Transformational Leadership among Different Cultures. *International Journal of Social Sciences & Educational Studies*, 7(3), 119–129.
52. Rashid, C. A., Salih, H. A., & Budur, T. (2020). The Role of Online Teaching Tools on the Perception of the Students during the Lockdown of Covid-19. *International Journal of Social Sciences & Educational Studies*, 7(3), 178–190.
53. Rich, R. F. (1997). Measuring knowledge utilization: Processes and outcomes. *Knowledge and Policy*, 10(3), 11–24. doi:10.1007/bf02912504
54. Singh, B., & Rao, M. K. (2016). Examining the effects of intellectual capital on dynamic capabilities in emerging economy context: knowledge management processes as a mediator. *Emerging Economy Studies*, 2(1), 110-128.
55. Storey, J. (2016). *Human resource management*. Edward Elgar Publishing Limited.
56. Swink, M., & Nair, A. (2007). Capturing the competitive advantages of AMT: Design–manufacturing integration as a complementary asset. *Journal of Operations Management*, 25(3), 736-754.
57. Tajeddini, K. (2016) Analyzing the Influence of Learning Orientation and Innovativeness on Performance of Public Organizations: The Case of Iran, *Journal of Management Development*, Vol. 35, No. 2, pp. 134-153
58. Top, C., & Ali, B. J. (2021). Customer satisfaction in online meeting platforms: Impact of efficiency, fulfillment, system availability, and privacy. *Amazonia Investiga*, 10(38), 70–81. <https://doi.org/10.34069/AI/2021.38.02.7>
59. Torlak, N. G., Demir, A., & Budur, T. (2019). Impact of operations management strategies on customer satisfaction and behavioral intentions at café-restaurants. *International Journal of Productivity and Performance Management*. Vol. 69 No. 9, pp. 1903-1924.
60. Torlak, N.G., Demir, A. and Budur, T. (2021a), "Using VIKOR with structural equation modeling for constructing benchmarks in the Internet industry", *Benchmarking: An International Journal*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/BIJ-09-2020-0465>
61. Torlak, N. G., Demir, A., & Budur, T. (2021b). Decision-making, leadership and performance links in private education institutes. *Rajagiri Management Journal*.
62. Tsoukas, H. (2005). Do we really understand tacit knowledge? *Managing knowledge: an essential reader*, 107, 1-18.\
63. V. Albino, G. A. Claudio, and G. Schiuma, "Knowledge transfer and inter-firm relationships in industrial districts: the role of the leader firm". *Technovation*, 19, 1990, pp. 53-63.
64. W. M. Cohen, and D. A. Levinthal, "Absorptive capacity: a new perspective on learning and innovation", *Administrative Science Quarterly*, 35, 1990, pp. 128-152.
65. Wang, N., Liang, H., Zhong, W., Xue, Y. and Xiao, J. (2012), "Resource structuring or capability building? An empirical study of strategic value of information technology", *Journal of*
66. Wang, Z.N. and Wang, N.X. (2012), "Knowledge sharing, innovation and firm performance", *Expert Systems with Applications*, Vol. 39 No. 10, pp. 8899-8908.
67. Winandy, J. E., & Lebow, P. K. (2007). Modeling strength loss in wood by chemical composition. Part I. An individual component model for southern pine. *Wood and Fiber Science*, 33(2), 239-254.