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RESEARCH ARTICLE

THE IMPACT OF TQM PRACTICES AND ORGANIZATIONAL LEARNING CAPABILITIES ON INNOVATION PERFORMANCE IN HIGHER EDUCATION INSTITUTIONS

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Abstract

Nowadays, innovation performance has become the source of organizations to gain competitive advantage and sustain their position in the market. The higher education institutions are facing challenges in implementing quality management to improve innovation performance and gain a competitive advantage. The primary aim of this paper is to develop a conceptual model for higher education to improve innovation performance by improving their quality management practices as well as improving their organizational learning capabilities. The model developed in this study is supported by the previous literature. This paper emphasizes that total quality management (TQM) practices (top management support, customer (student) focus, continuous improvement, employee involvement) as one set of practice and organizational learning capabilities affect the innovation performance. The support of literature was added by consulting the databases such as JSTOR, ScienceDirect, Emerald, Tylor and Francis. The keywords used to find the related literature are Innovation in the education sector, Innovation performance, TQM and innovation, Organizational learning and innovation etc. The recommendations and conclusion of the paper are presented at the end.

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Introduction:-

The role of innovation is considered very significant globally in gaining competitive advantage (Aminbeidokhti et al., 2016; Zeng et al., 2017). Several studies asserts that innovation is a key factor in gaining competitive advantage (Aminbeidokhti et al., 2016; Bigliardi & Dormio, 2009; Damirch, Rahimi, & Seyyedi, 2011; Rosenbusch, Brinckmann, & Bausch, 2011; Sandvik & Sandvik, 2003). Innovation performance has recently become a focus of many researchers. Innovation became very significant for the survival of the organization (Yusr et al., 2017). It is also argued by Yusr et al. (2017) that organizations can sustain their position in the market and gain a competitive advantage by improving their innovation performance. The innovation performance in the education sector is given very less importance and the empirical studies are very few (Bon & Mustafa 2013; Hoang et al., 2006).

Additionally, total quality management is found as a core element in gaining a competitive advantage. The improvement in the quality management practices is found as significant in achieving the success of businesses. Higher education institutions are found vulnerable in terms of issues in quality management because of market globalization, growing interconnectedness of economies, increased consumer consciousness of quality, and rapid

technological transition (Talib et al., 2010; Sohail& Hoong, 2003). TQM is a quality approach to 'change management' (Arumugam et al., 2008). Furthermore, research studies by Prajogo and Sohal (2001, 2004), Baird et al. (2011) and Kanapathy et al. (2017) have asserted that innovation is the basis of competitiveness and competitive advantage.

Although the application of TQM practices is a critical component of improving organisational performance, theoretical arguments on the establishment of a link among TQM and innovation are still inconclusive. Some argue that the relationship between TQM and innovation are incompatible (Moura E Sá&Abrunhosa, 2007; Pekovic &Galia, 2009), while others have shown links between the two (Baird et al., 2011; Abrunhosa&Sá, 2008; Prajogo& Hong, 2008; López-Mielgo et al., 2009; Al-Refaie et al., 2011; Martínez-Costa& Martínez-Lorente, 2008). However, the inconsistencies between the relationship of TQM practices and innovation performance raise a question about the compatibility among them.

In addition to that, organizational learning capabilities is also found an important factor in improving the innovation performance of the organization. Several studies in the past asserted that the improvement in the learning process of an organization will help the organization to gain a competitive advantage (Honarpour et al., 2018; Martin-de Castro, 2015; Obeidat et al., 2016). Organizational learning capability (OLC) can be defined as "a company's ability to function, i.e., the ability to create, acquire, transmit, and execute information, as well as the ability to alter behaviour to replicate a new cognitive state in order to improve overall performance" (Jerez-Gomez, CespedesLorente, & Valle-Cabrera, 2005).

From the above explanation, this paper concludes that several factors contribute to improving innovation performance. This paper will propose a framework for higher education to improve quality management and organizational learning capabilities in order to improve innovation performance to gain a competitive advantage.

Literature Review:-

Innovation performance

Nowadays, innovation is both a source of success and a competitive edge for a company (Alshourah, 2020; Damanpour& Gopalakrishnan, 2001; Schilling & Phelps, 2005; Yusr et al., 2017, Yusr, 2016). The innovative organisation requires to maintain the ability to improve the performance individually and organizationally (Varis&Littunen, 2010; Walker &Damanpour, 2011; Walker, Chen & Aravind, 2015; Yusr et al., 2017). According to Crossan and Apaydin (2010). "Innovation is production or adoption, assimilation, and exploitation of a value-added novelty in economic and social spheres; renewal and enlargement of products, services, and markets; development of new methods of production; and establishment of new management systems, It's both a technique and an outcome."

The previous literature on innovation performance shows that quality management and organizational learning capabilities are the most important factors that affect innovation performance. The goal of TQM and innovation performance is to gain a competitive edge and increase customer satisfaction. Without innovation, firms will not be able to perform well (Durrah, Allil&Alkhalaf, 2018, Durrah, Allil, Gharib &Alhamoud, 2018). To improve the innovation performance, some other factors also need to be considered that affect the innovation performance in order to gain a competitive advantage.

Total Quality Management (TQM) practices

Quality management is referred to as "a complete management concept that increases all activities of an organisation via continuous improvement and organisational change" (Arrfou, 2019). According to Kim et al. (2012). "The management of all activities involved in the process of creating ideas, developing technology, manufacturing, and marketing a new (or improved) product, manufacturing method, or equipment," El Manzani et al. (2019) and López-Mielgo et al. (2019) defines quality management as "capturing aspects from diverse organisational models and extending them by introducing principles, procedures, and techniques." TQM has become a focus of many researchers recently (Alshourah, 2020).

The concept of TQM has piqued the interest of academics due to its growing popularity and acceptability in the business world. Bon and Mustafa (2013) have argued that the implementation of TQM is not given much importance in the service sector generally and in the education sector particularly. The current study is an attempt to conceptualize a model to improve the quality management practices in the education sector in order to gain a

competitive advantage. It is also found that TQM practices are a set of many different practices. In the current research, only four practices are found suitable in the context of the education sector. These practices are top management support, customer (student) focus, continuous improvement, employee involvement (Bon & Mustafa, 2013). Additionally, the study conducted by Yusr et al. (2017) asserts that TQM practices should be utilized as one set of practices in order to understand the relationship in a better way. Therefore, the current study will implement TQM practices (top management support, customer (student) focus, continuous improvement, employee involvement) as one set of practices.

Organizational Learning Capabilities

Organizational learning as defined by Bates and Khasawneh (2005), "is a phenomenon that supports knowledge acquisition, distribution, and sharing of learning, as well as reinforces and supports continual learning and its application to organisational improvement". Managers view organisational learning as a technique for gaining a competitive advantage by putting learning at the center of organisational activity (Garvin, 1995). Since many researchers have used organisational learning or organisational capabilities as a predictor of several organisational outcomes such as organisational performance (Jimenez- Jimenz & Sanz-Valle, 2011), organisational innovation (Liao, Fei & Liu, 2008), job satisfaction (Dekoulou & Trivellas, 2015), and innovation performance (Jimenez- Jimenz & Sanz-Valle, 2011; Alegre & Chiva, 2008; Hung et al., 2011). However, it is found that organizational innovation performance can be improved by improving organizational learning capabilities.

Hypothesis Development

The relationship between TQM practices and innovation

The relationship between TQM practices and innovation performance has been studied by many researchers. (Alshourah, 2020; Kanapathy et al., 2017; Prajogo and Sohal, 2004; Yusr et al., 2017). The findings of those studies show inconsistent results. Some studies show that TQM and innovation performance has a significant relationship (Hoang et al., 2006; Ooi et al., 2012; Maistry et al., 2017). While other studies show insignificant results (El Manzaniet al., 2019; Prajogo & Sohal, 2004; Yusr et al., 2017). Although, TQM and innovation have been studied by many researchers the inconsistent results became one of the reasons to conduct the study in higher education institutions to test the relationship between TQM practices and innovation performance. From the discussion above, the following hypothesis is deduced:

H1: TQM practices have a significant relationship with innovation performance.

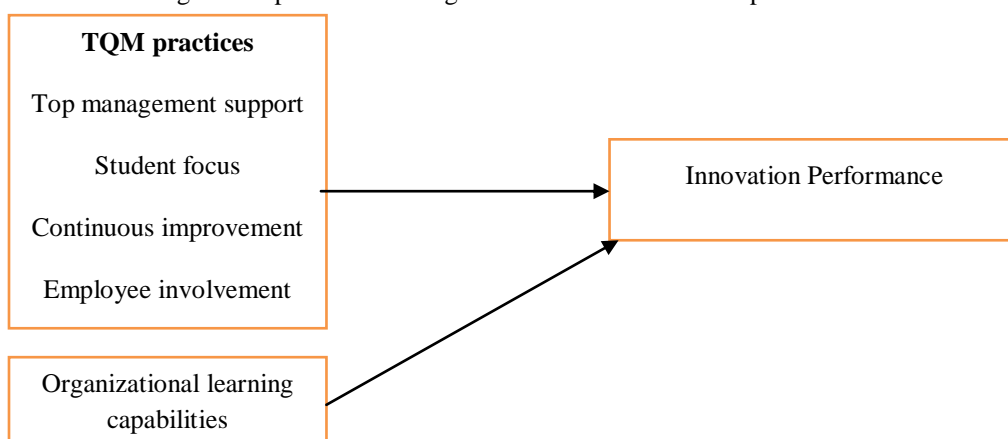
The relationship between organizational learning capabilities and innovation performance.

According to Ferreira et al. (2021), organizational learning capabilities has a significant impact on innovation performance. Several other studies also found organizational learning capabilities as a significant factor in improving organizational innovation performance (Alegre & Chiva, 2008; Fang et al, 2011; Hsu & Fang 2009). According to these studies, the organization can be innovative if they have the ability to improve the learning culture and strategies in the organization. Based on the above discussion the study deduced the following hypothesis:

H2: Organizational learning capabilities have a significant relationship with innovation performance.

Proposed research framework

On the basis of the above discussion, the current study proposes a framework that will be beneficial for the higher education institutions to improve their innovation performance by considering the factors that affect the innovation performance and to gain competitive advantage as well as to sustain their position in the market.



Research Framework

Recommendations:-

In the context of higher education, the studies on innovation performances are scarce, which shows that there is a need for further studies. Also, it is also found from the previous literature that there are several factors that affect innovation performance. The current study is an attempt to propose a framework that might be beneficial for higher education. The current study found TQM practices and organizational learning capabilities affects innovation performance. As this study only proposed a model, future studies can test this model empirically in order to understand the factors that affect innovation performance in higher education. Future studies can add other factors such as entrepreneurial orientation, knowledge management as mediators or moderators in the proposed model for a better understanding of the relationships between different variables.

Conclusion:-

The current study was an attempt to develop a conceptual model for higher education institutions to improve innovation performance. The study also found the factors such as TQM practices (top management support, customer (focus), continuous improvement, employee involvement) and organizational learning capabilities that can affect innovation performance. It is found in the previous literature that TQM practices and innovation performance relationship is inconsistent, this study is an attempt to investigate this relationship in order to better understand the effect of TQM practices and innovation performance. Bon and Mustafa (2013) argued that the studies on quality management and innovation performance are scarce. The current study is an attempt to fill the gap in the literature. Also, the current study only proposed a model for higher education institutions. The subject of future study is to test the hypotheses as well as validation of the proposed model.

References:-

1. Abrunhosa, A., & Sá, P. M. E. (2008). Are TQM principles supporting innovation in the Portuguese footwear industry?. *Technovation*, 28(4), 208-221
2. Al-Refaie, A., Ghnaimat, O., & Ko, J. H. (2011). The effects of quality management practices on customer satisfaction and innovation: a perspective from Jordan. *International Journal of Productivity and Quality Management*, 8(4), 398-415..
3. Alshourah, S. (2021). Assessing the influence of total quality management practices on innovation in Jordanian manufacturing organizations. *Uncertain Supply Chain Management*, 9(1), 57-68.
4. Alegre, J., & Chiva, R. (2008). Assessing the impact of organizational learning capability on product innovation performance: An empirical test. *Technovation*, 28(6), 315-326.
5. Aminbeidokhti, A., Jamshidi, L., & Mohammadi Hoseini, A. (2016). The effect of the total quality management on organizational innovation in higher education mediated by organizational learning. *Studies in Higher Education*, 41(7), 1153-1166.
6. Arrfou, H. (2019). New business model of integration practices between TQM and SCM: the role of innovation capabilities. *Problems and perspectives in management*, (17, Iss. 1), 278-288.
7. Bates, R., & Khasawneh, S. (2005). Organizational learning culture, learning transfer climate and perceived innovation in Jordanian organizations. *International journal of training and development*, 9(2), 96-109.
8. Baird, K., Hu, K. J., & Reeve, R. (2011). The relationships between organizational culture, total quality management practices and operational performance. *International Journal of Operations & Production Management*.
9. Bigliardi, B., & Dormio, A. I. (2009). An empirical investigation of innovation determinants in food machinery enterprises. *European Journal of innovation management*.
10. Bon, A. T., & Mustafa, E. M. (2013). Impact of total quality management on innovation in service organizations: Literature review and new conceptual framework. *Procedia Engineering*, 53, 516-529.
11. Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of management studies*, 47(6), 1154-1191.
12. Damirchi, Q. V., Rahimi, G., & Seyyedi, M. H. (2011). Transformational leadership style and innovative behavior on innovative climate at SMES in Iran. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 33(832), 1-9.
13. Damanpour, F., & Gopalakrishnan, S. (2001). The dynamics of the adoption of product and process innovations in organizations. *Journal of management studies*, 38(1), 45-65.

14. Dekoulou, P., & Trivellas, P. (2015). Measuring the impact of learning organization on job satisfaction and individual performance in Greek advertising sector. *Procedia-Social and Behavioral Sciences*, 175, 367-375.
15. Durrah, O. M., Allil, K. K., & Alkhalaf, T. (2018). The intellectual capital and the learning organization: A case study of Saint Joseph Hospital, Paris. *International Journal of Public Leadership*.
16. Durrah, O., Allil, K., Gharib, M., & Alhamoud, A. (2018). How different styles of conflict management determine creativity? Exploring petrochemical companies in Oman. *Journal of Economics and Business*, 1(4), 455-463.
17. El Manzani, Y., Sidmou, M. L., & Cegarra, J. J. (2019). Does ISO 9001 quality management system support product innovation? An analysis from the sociotechnical systems theory. *International Journal of Quality & Reliability Management*.
18. Fang, C. H., Chang, S. T., & Chen, G. L. (2011). Organizational learning capability and organizational innovation: The moderating role of knowledge inertia. *African Journal of Business Management*, 5(5), 1864-1870.
19. Ferreira, J., Cardim, S., & Coelho, A. (2021). Dynamic capabilities and mediating effects of innovation on the competitive advantage and firm's performance: the moderating role of organizational learning capability. *Journal of the Knowledge Economy*, 12(2), 620-644.
20. Garvin, A. D. (1995). Building a Learning Organization *Harvard Business Review*. July-August.
21. Hoang, D. T., Igel, B., & Laosirihongthong, T. (2006). The impact of total quality management on innovation: Findings from a developing country. *International journal of quality & reliability management*.
22. Honarpour, A., Jusoh, A., & Md Nor, K. (2018). Total quality management, knowledge management, and innovation: an empirical study in R&D units. *Total Quality Management & Business Excellence*, 29(7-8), 798-816.
23. Hsu, Y. H., & Fang, W. (2009). Intellectual capital and new product development performance: The mediating role of organizational learning capability. *Technological Forecasting and Social Change*, 76(5), 664-677.
24. Hung, R. Y. Y., Lien, B. Y. H., Yang, B., Wu, C. M., & Kuo, Y. M. (2011). Impact of TQM and organizational learning on innovation performance in the high-tech industry. *International business review*, 20(2), 213-225.
25. Jerez-Gomez, P., Céspedes-Lorente, J., & Valle-Cabrera, R. (2005). Organizational learning capability: a proposal of measurement. *Journal of business research*, 58(6), 715-725.
26. Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. *Journal of business research*, 64(4), 408-417.
27. Kanapathy, K., Bin, C. S., Zailani, S., & Aghapour, A. H. (2017). The impact of soft TQM and hard TQM on innovation performance: the moderating effect of organisational culture. *International Journal of Productivity and Quality Management*, 20(4), 429-461.
28. Kim, D. Y., Kumar, V., & Kumar, U. (2012). Relationship between quality management practices and innovation. *Journal of operations management*, 30(4), 295-315.
29. López-Mielgo, N., Montes-Peón, J. M., & Vázquez-Ordás, C. J. (2009). Are quality and innovation management conflicting activities?. *Technovation*, 29(8), 537-545.
30. Liao, S. H., Fei, W. C., & Liu, C. T. (2008). Relationships between knowledge inertia, organizational learning and organization innovation. *Technovation*, 28(4), 183-195.
31. Maistry, K., Hurreeram, D. K., & Ramessur, V. (2017). Total quality management and innovation: Relationships and effects on performance of agricultural R&D organisations. *International Journal of Quality & Reliability Management*.
32. Martínez-Costa, M., Martínez-Lorente, A. R., & Choi, T. Y. (2008). Simultaneous consideration of TQM and ISO 9000 on performance and motivation: An empirical study of Spanish companies. *International journal of production economics*, 113(1), 23-39.
33. Martín-de Castro, G. (2015). Knowledge management and innovation in knowledge-based and high-tech industrial markets: The role of openness and absorptive capacity. *Industrial marketing management*, 47, 143-146.
34. Moura E Sá, P., & Abrunhosa, A. (2007). The role of TQM practices in technological innovation: the Portuguese footwear industry case. *Total Quality Management & Business Excellence*, 18(1-2), 57-66.
35. Obeidat, B. Y., Al-Suradi, M. M., & Tarhini, A. (2016). The impact of knowledge management on innovation: An empirical study on Jordanian consultancy firms. *Management Research Review*.
36. Ooi, K. B., Cheah, W. C., Lin, B., & Teh, P. L. (2012). TQM practices and knowledge sharing: An empirical study of Malaysia's manufacturing organizations. *Asia Pacific Journal of Management*, 29(1), 59-78.
37. Pekovic, S., & Galia, F. (2009). From quality to innovation: Evidence from two French Employer Surveys. *Technovation*, 29(12), 829-842.

38. Prajogo, D. I., & Hong, S. W. (2008). The effect of TQM on performance in R&D environments: A perspective from South Korean firms. *Technovation*, 28(12), 855-863.
39. Prajogo, D. I., & Sohal, A. S. (2001). TQM and innovation: a literature review and research framework. *Technovation*, 21(9), 539-558.
40. Prajogo, D. I., & Sohal, A. S. (2004). The multidimensionality of TQM practices in determining quality and innovation performance—an empirical examination. *Technovation*, 24(6), 443-453.
41. Rosenbusch, N., Brinckmann, J., & Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of business Venturing*, 26(4), 441-457.
42. Schilling, M. A., & Phelps, C. C. (2005). Interfirm collaboration networks: The impact of small world connectivity on firm innovation. Available at SSRN 564422.
43. Sohail, M. S., & Hoong, T. B. (2003). TQM practices and organizational performances of SMEs in Malaysia: Some empirical observations. *Benchmarking: An International Journal*.
44. Talib, F., Rahman, Z., & Qureshi, M. N. (2010). The relationship between total quality management and quality performance in the service industry: a theoretical model. Talib, F., Rahman, Z. and Qureshi, MN (2010), "The relationship between total quality management and quality performance in the service industry: a theoretical model", *International Journal of Business, Management and Social Sciences (IJBMS)*, MultiCraft, 1(1), 113-128.
45. Varis, M., & Littunen, H. (2010). Types of innovation, sources of information and performance in entrepreneurial SMEs. *European Journal of Innovation Management*.
46. Walker, R. M., Damanpour, F., & Devece, C. A. (2011). Management innovation and organizational performance: The mediating effect of performance management. *Journal of public administration research and theory*, 21(2), 367-386.
47. Walker, R. M., Chen, J., & Aravind, D. (2015). Management innovation and firm performance: An integration of research findings. *European Management Journal*, 33(5), 407-422.
48. Yusr, M. M. (2016). Innovation capability and its role in enhancing the relationship between TQM practices and innovation performance. *Journal of Open Innovation: Technology, Market, and Complexity*, 2(1), 6.
49. Yusr, M. M., Mokhtar, S. S. M., Othman, A. R., & Sulaiman, Y. (2017). Does interaction between TQM practices and knowledge management processes enhance the innovation performance?. *International Journal of Quality & Reliability Management*.
50. Zeng, J., Zhang, W., Matsui, Y., & Zhao, X. (2017). The impact of organizational context on hard and soft quality management and innovation performance. *International Journal of Production Economics*, 185, 240-251.