



# INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



## Exploring the Success Factors of Operational Excellence in SMEs Manufacturing Sectors

Mohd Hafeez Al-Amin Abdul Wahab, Norzawani Ibrahim, Abdul Aziz Yaacob, Mohammad Ismail, Mohd Nazri Muhayiddin, Siti Maziah Ab Rahman, Adibah Alawiah Osman

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v12-i5/13102> DOI:10.6007/IJARBSS/v12-i5/13102

**Received:** 19 March 2022, **Revised:** 22 April 2022, **Accepted:** 08 May 2022

**Published Online:** 20 May 2022

**In-Text Citation:** (Abdul Wahab et al., 2022)

**To Cite this Article:** Abdul Wahab, M. H. Al-A., Ibrahim, N., Yaacob, A. A., Ismail, M., Muhayiddin, M. N., Ab Rahman, S. M., & Osman, A. A. (2022). Exploring the Success Factors of Operational Excellence in SMEs Manufacturing Sectors. *International Journal of Academic Research in Business and Social Sciences*. 12(5), 1504 – 1515.

**Copyright:** © 2022 The Author(s)

Published by Human Resource Management Academic Research Society ([www.hrmars.com](http://www.hrmars.com))

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen

at: <http://creativecommons.org/licenses/by/4.0/legalcode>

Vol. 12, No. 5, 2022, Pg. 1504 – 1515

<http://hrmars.com/index.php/pages/detail/IJARBSS>

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at  
<http://hrmars.com/index.php/pages/detail/publication-ethics>



# INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



[www.hrmar.com](http://www.hrmar.com)

ISSN: 2222-6990

## Exploring the Success Factors of Operational Excellence in SMEs Manufacturing Sectors

**Mohd Hafeez Al-Amin Abdul Wahab**

Faculty of Business and Management, Universiti Teknologi Mara Cawangan Kelantan  
Email: mohdhafeez@uitm.edu.my

**Norzawani Ibrahim**

Faculty of Business and Management, Universiti Teknologi Mara Puncak Alam, Malaysia  
Email: nzawani@uitm.edu.my

**Abdul Aziz Yaacob**

Faculty of Business and Management, Universiti Teknologi Mara Cawangan Kelantan  
Email: azyz929@gmail.com

**Mohammad Ismail**

Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia  
Email: mohammad.i@umk.edu.my

**Mohd Nazri Muhayiddin**

Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia  
Email: mnazri@umk.edu.my

**Siti Maziah Ab Rahman**

Faculty of Business and Management, Universiti Teknologi Mara Cawangan Kelantan  
Email: maziah650@uitm.edu.my

**Adibah Alawiah Osman**

Faculty of Business and Management, Universiti Teknologi Mara Puncak Alam, Malaysia  
Email: adibahalawiah@uitm.edu.my

### Abstract

Small and medium enterprises (SMEs) manufacturing sectors has been identified as a key engine to the economy. However, SMEs manufacturing sectors encounters challenges which are affected their business operations that add difficulty for SMEs to achieve their performance. The purpose of this study to examines the success factors of operational

excellence in SMEs manufacturing sectors. This paper provides the conceptual understanding on the effect of the soft and hard factors on the operational excellence. The literatures have demonstrated that the linkages of the conceptual framework were developed which incorporate the soft factors, hard factors and operational excellence. Grounded by resource-based view theory perspectives, this study examines two main factors that is the soft factors and the hard factors. In addition, the literature also shows that there is a need for a study in the context of the SMEs in Malaysia. This paper contribute to a body of knowledge in terms of providing better understanding of the operational excellence in Malaysian SMEs manufacturing sectors. The practical adoption of managing the soft factors and hard factors among SMEs in Malaysia will contribute to the operational excellence in their business.

**Keywords:** Hard Factors, Operational Excellence, Operational Management, Small and Medium Enterprises (SME), Soft Factors

### Introduction

Currently, the business environment become more competitive with varying demands form different industries and firms are redesigning themselves towards excellence (Saeed et al., 2020). The continuously and unpredictable change of the environment give an impact to the operation and performance of organization. To maintain their competitiveness, the organization needs to create the ability to respond and adapt to changing caused by uncertain environmental conditions (Ahmad, 2012; Ibrahim et al., 2021). In order to stay competitive in a business environment, organizations are under pressure to reduce costs without reducing the number of production and quality and at the same time to improve customer satisfaction (Ojha, 2015;Wahab et al., 2019a).

Furthermore, the organization are require to pursue excellence in their business by seeking long-term business success to respond actively to survive with the challenges due the competitive and international market conditions (Jaeger et. al., 2014). Organization receives new demand caused by rapid changing in market landscape in the global market. To become a leader in the market competition, the companies need to rebuild themselves by creating new strategies and ideas to achieve business excellence. In addition, excellence will keep the companies on the right track in order to achieve their objectives and mission (Wahab et al., 2019b; Yew, 2014).

Small and medium enterprises (SMEs) have been recognized as the engine to the economy and a generator of employment and growth. SMEs play an important role and contributing significantly in the economic and social developments. In Malaysia, SMEs have been identified as one of the key engines of growth to transform Malaysia into a fully developed high-income nation (SME Corporation Malaysia, 2019). Although SMEs are important component of growth in Malaysia and indicate the positive performance of SMEs in recent year, the contributions of SMEs GDP in 2020 declines which reflected in the 7.3 percent reduction in SMEs GDP in 2020 (Department of Statistics Malaysia, 2020). In order to support the continued growth and expansion of the SMEs, the SMEs must develop excellence business operations and management skills by achieving operational excellence (Wahab et al., 2020). Furthermore, the research on operational excellence is growing and has been given attention from the community researchers. Most of the research are conducted in developed countries but very limited studies and discussion in the Malaysia context (Wahab et al., 2020). Additionally, literature on operational excellence studies in Malaysian SMEs manufacturing sector also shows a very little empirical research has been conducted in the area of operational and business excellence implementation within this sector. Most of the previous

studies on operational excellence in Malaysia mostly conducted on big company context and still lacking in the SMEs manufacturing sector (Ahmad et al., 2019; Masrom et al., 2017; Wahab et al., 2020; Yew & Ahmad, 2014).

Consequently, there are very limited studies on operational excellence in the SMEs manufacturing sectors in Malaysia. As a result, the authors believe that the factors that influencing the operational excellence implementation in Malaysian SMEs manufacturing sectors remains unclear. Thus, the objectives of this study are to examines the success factors of operational excellence on SMEs manufacturing sectors in Malaysia. This paper will contribute to better understanding of the success factors of operational excellence practices for achieving and sustaining organizational performance in this sector.

## **Literature Review**

### **Operational Excellence**

Excellence can be described as a superior approach in controlling the organization and achieving results (EFQM, 1999). Excellence related to a substantial improvement in performance through various aspects including operations and developed according to modern sustainability movements (Edgeman & Eskildsen, 2014). Assen (2011) stated that excellence refers to strategic approaches in managing the technical and social aspects of the organizations to achieve superior production and delivery systems.

The literature shows that there are various definitions of operational excellence. Mitchell (2015) defined operational excellence to a descriptive term that clearly defines the applicability and objective. Operational refers to an operating term that means to produce and/or deliver a product and achieve the mission while excellence means is an objective that must be fulfilled and sustained to stay successful. Treacy and Wiersema (1993) define operational excellence a discipline of delivering product or services with good quality at the lowest price. Similarly, Assen (2011) defined operational excellence is a strategy to enhance the operating profits by constantly improve the production and delivery system by providing the right value of products and services to the customers.

Furthermore, Dunggan (2011) explained that operational excellence is a term that the operation is at the top level of performance and the organization has reached the highest operation it can be. Operational excellence is related to aspects of operational performance such as cost, time, quality, and flexibility and it also about the way that operation side supports the business growth. It includes the way to reduce costs, quality enhancement and managing people and resources. Operational excellence is a holistic approach to attain superior performance in quality, productivity and delivery of services and products. Operational excellence with a systematic approach allows the organizations to obtain service excellence, customer orientation and continuous improvement culture and at the same time acquire customer satisfaction and the operational efficiency (Cesarotti & Spada, 2009).

In summary, operational excellence emphasized on operational performance and sustainable organizational performance. In the operational performance, operational excellence emphasizes on quality improvements, delivery improvements, cost improvements and flexibility improvements. Additionally, operational excellence also concerned on sustainable organizational performance which emphasizes on the efficiency of handling people and resources such as reducing waste, energy, time and interaction performance of employees, customers, community and supply chain. By pursuing the operational excellence, it will lead the organization to the excellent performance and differentiate them in the market competition (Wahab et al., 2020).

### **Operational Excellence Success Factors**

Researchers and practitioner have discussed that there are several factors that organization might consider to achieve the excellence in the businesses. From the previous studies and literature, the factors might influencing operational excellence is internal factors (Jaeger et al., 2014; Ojha, 2015; Pellissier, 2009; Romano, 2003; Wahab et al., 2016; Yew et al., 2013). The internal factors are the factors that being control by the organizations which are consists of soft and hard factors. To attain the excellence result, it is important for organization to strengthen both the soft and hard factors. The combination of soft and hard factors will reward the organization to achieve an improvement in overall performance (Calvo-Mora, Picón-Berjoyo et al., 2014; Gadenne & Sharma, 2009; Wahab et al., 2016).

Based on the review of the previous studies, the authors have summarised success factors of soft and hard factors on operational excellence to be as follows: process management, organizational culture, leadership style, human resource management, operations strategy and organizational structure. Most of these factors are adopted and adapted based on operational excellence study (Ahmad et al., 2018; Alkhalidi & Abdallah, 2018; Osman et al., 2021; Shehadeh et al., 2016; Wahab et al., 2020). Although these studies produced different results such as success factors, they actually discovered a common set of practices that is required for the success of operational excellence implementation. Thus, the authors identify and propose the construct of the critical success factor of operational excellence practices presented in the literature and described below.

#### *Process Management*

Process management can be defined as a specific approach to planning, implementing, controlling (monitoring, measuring and analysing) and continuously improving the process, quality products and services (Psomas et al., 2011). It includes product design, organizational services and processes that fulfill the expectations of customers and other stakeholders, the prevention of mistakes, control and continuous improvement, the seeking of zero defects, the reduction of the cycle times and innovation. These aspects influence the operational and economic result of any business (Kaynak, 2003).

#### *Organizational Culture*

Organizational culture refers to a set of shared values and norms by the people and groups in an organization and that control the way they interact with each other and with stakeholders outside the organization (Marković, 2008). Strong organizational culture is important to increase the performance of the employees which in turn will improve the business performance. It is necessary for organizations to improve their managerial aspect by developing a suitable organizational culture in order to enhance performance, growth and competitiveness on the regional and global market (Shahzad et al., 2012).

#### *Leadership Style*

Leadership is fostering change and ensuring stability in operational excellence and the basic requirement needed to the leaders are required to establish structures, planning for improvements, organizing activities, establishing routines, caring about people, communicating, coaching, supporting and motivating employees (Friedli et al., 2013).

#### *Human Resource Management*



Human resources are an intellectual capital which includes skills, knowledge and competencies that organization process and channelizes to sustained the organizational excellence. Human resources have strategies and practices that work as a tool for the organization to achieve superior performance (Ahmad et al., 2018). Human resources play an important role in firm performance improvement and become increasingly critical due to the changing competitiveness in the business environment. A good human resources will influence the organizational performance, productivity, growth and many other organizational outcomes (Abdullah et al., 2010; Monem, 2012).

### *Operations Strategy*

Operations strategy is related to the overall transformation process in the whole business. It concerned on how the operation has to reflect with the changed competitive environment to fulfill the present and upcoming challenges (Slack & Lewis, 2011). Sum et al (2004) also establish that operation strategy is vital ingredients and an important tool for successful business.

### *Organizational Structure*

The organizational structure refers to the way in which the organization members are allocated according to their responsibilities and capabilities and where procedures are carried out (Nahm et al., 2003). Organizational structure determines the way in which employees work through providing the task, responsibility and authority relationship (Yew & Ahmad, 2014).

### **Underpinning Theory of the Variables**

The theory has been chosen to guide the research framework is resourced based view theory (RBV). Resourced based view theory (RBV) has been widely used by the previous literature to explain the relationship between firm resources and performance. The RBV is a theoretical framework for understanding how to attain the competitive advantages within firms and how to sustain that advantage over the time (Barney, 2001). According to Barney (1991), the concept of RBV is the firm as a package of resources where it will generate value to the firms when their resources are differs. RBV explain that resources are the most important factors in attaining competitive advantage.

RBV theory emphasizes on the internal organizations resources and developing capabilities within the firm as sources of competitive advantage. Organizations resources refer to anything which is inside the organization such as assets, skills, capabilities, strategies, processes, knowledge, employees, organization attributes and information (Amit & Schoemaker, 1993; Barney, 1986). Based on key characteristics of organizational internal resources is valuable, rareness, imitable and non substitutable, it will give competitive advantage to the organization. Moreover, it will reward the organizational sustainable competitive advantage and increase organizational performance when the resources and capabilities is harnessed with activities or system within the organization (Porter, 1991).

In the context of operation management, operations have been highlights as an important source of resources and capabilities which are valuable, rare, inimitable, and non-substitutable in the resources-based views of sustainable competitive advantage (Brown et al., 2007; Winter, 2003). Operations management responsible to organizes the operations capabilities and resources to support business strategy which contributes to overall performance (Anderson et al., 1991; Brown et al., 2007). Moreover, the RBV suggest that best

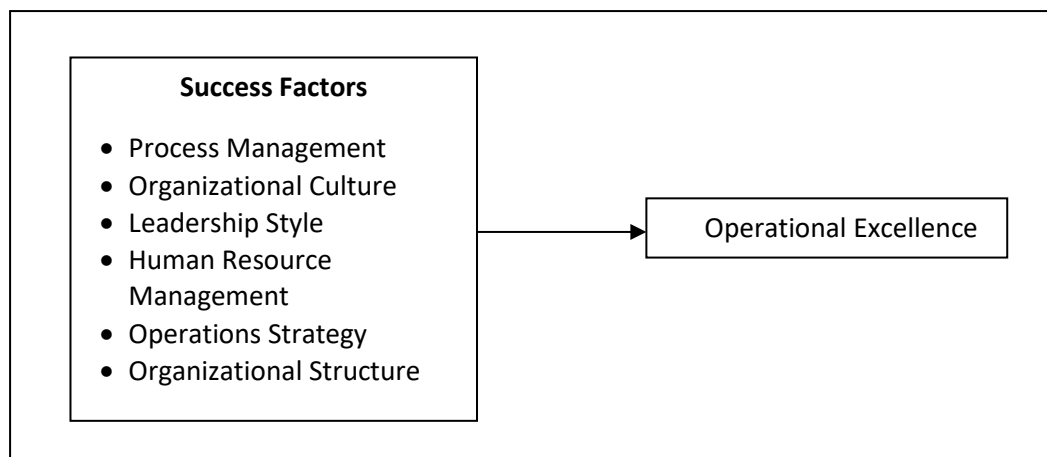
practices of operations strategy which are includes of processes and content are the potential sources of competitive advantage. According to Hayes and Pisano (1996), operations strategy are the process of developing operating capabilities that firms need for the future. The capability refers to knowing what to do and why. Traditionally, operations capabilities have been defined as quality, cost, dependability, flexibility, and innovation and the performance of these capabilities is related to business performance (Brown et al., 2007).

Moreover, this theory assumes that firms as bundles of resources and method by which a firm utilizes this resource within firm and to deliver the products and services differentiate from another. Firm's resources also view as a bundle of resources in the form of tangible and intangible assets which firms can exploit and achieve sustainable competitive advantage (Amit & Schoemaker, 1993; Wernerfelt, 1984). In addition, the RBV theory explained that both soft and hard factors are the resources and capabilities which give a competitive advantage to the organization. The integration both soft and hard elements will contribute a competitive advantage and improved the performance (Barney, 1991). Therefore, the RBV theory will use as a fundamental theory in this study to examine the effect of the soft and hard factors on the operational excellence.

### **Development of Conceptual Framework**

The previous study and literature have discussed the factors that are considered to be success factors on the operational excellence. The independent variables have a direct influence on the dependent variables. The independent variables in this study had been identified as soft and hard variables which determine the operational excellence as a dependent variable.

The conceptual framework proposed that the independent variables of the soft and hard variables will influence the operational excellence. According to the RBV theory (Barney, 1991), the soft and hard factors contributes a competitive advantages and influences the performance. The soft and hard factors are comprising of internal resource which is it an important element in order to achieve sustained competitive advantage and superior performance that is the operational excellence. The most effective way that organizations use their resources in their operations effectively will contribute to the operational excellence (Yew & Ahmad, 2014). This paper defines the soft and hard factors as factors that might determine the operational excellence among the SMEs in Malaysia. Previous studies have emphasized the importance of soft and hard factors on the performance. Moreover, the relationship between soft factors, hard factors and performance has been showed in the literature (Ahmad et al., 2018; Alkhalidi & Abdallah, 2018; Osman et al., 2021; Shehadeh et al., 2016; Wahab et al., 2020). The relationships between the variables in this study are shown in Figure 1.



**Figure 1.** Conceptual framework

### **Discussion and Findings**

This study interested to examines the success factors of operational excellence in SMEs manufacturing sectors. This paper provides the conceptual understanding on the effect of the soft and hard factors on the operational excellence. In addition, the paper provides an understanding to owner or managers of the SMEs in Malaysia about the effect of the soft factors and hard factors on the operational excellence in order to improve their performance which then leads to the achieving the operational excellence to their business.

Furthermore, this study brings a new understanding to management and stakeholders together with the various factors related to performance improvement. This study also will contribute to better understanding of the soft factors and hard factors where the most empirical research on operational excellence has been conducted in developed countries. Additionally, the managerial decisions on the factors or strategy to attain the operational excellence in the context of SMEs like Malaysia is remain unclear.

Moreover, previous study on the relationship between factors influencing and operational excellence is still limited. Previous study on operational excellence mostly focusing on big company context and still lack of study in the SMEs context. Therefore, this study expected contribute to filling this gap, add to the existing literature and provide support for the past theories on the effect of the soft factors and hard factors that might impact the operational excellence.

### **Conclusion**

The purpose of this study to examines the success factors of operational excellence in SMEs manufacturing sectors. Based on the review of the previous studies, this study has identified soft and hard factors are the success factors of operational excellence for SMEs manufacturing sectors in Malaysia. Specifically, the soft and hard factors include process management, organizational culture, leadership style, human resource management, operations strategy and organizational structure. This study provides the conceptual understanding on the success factors of operational excellence on SMEs manufacturing sectors in Malaysia. The literature and previous studies were leads the development of a conceptual framework which incorporate the soft and hard factors to the operational excellence. The paper describes a linkage that the soft factors and hard factors are likely to contribute positively to the operational excellence.



The conceptual understanding may be useful for firms, managers and stakeholders in understanding and adopting efficiency of managing the soft factors and hard factors in order to improve performance and achieve the operational excellence. This study will help SMEs owners and managers to have body of knowledge that will make them have a better understanding of the influence of the soft and hard factors on operational excellence of their businesses. Thus, SMEs may consider the soft and hard factors in order to achieve the operational excellence. Further investigation will be conducted by using this proposed conceptual framework to verify the relationships between all variables in this study. This will help Malaysian SMEs manufacturing sectors to identifies the success factors of operational excellence to enhance organisational performance of the SMEs in the manufacturing industry.

## References

- Abdullah, N. H., Wahab, E., & Shamsuddin, A. (2010). Human resource management practices as predictors of innovation among Johor SMEs. *International Conference on Science and Social Research (CSSR 2010)*, 878–883. Kuala Lumpur, Malaysia.
- Ahmad, A. (2012). Macro-environment influences on health service strategy in Saudi private sector hospitals: An empirical investigation. *International Business Research*, 5(5), 49–64. <https://doi.org/10.5539/ibr.v5n5p49>
- Ahmad, H., Alekam, J. M. I., Shaharruddin, S., Marchalina, L., & Fok-Yew, O. (2018). The relationship between the change management and the operational excellence in electrical and electronics manufacturing companies. *International Journal of Supply Chain Management*, 7(5), 511–519.
- Ahmad, M. F., Zamri, S. F., Abdul Hamid, N., Ahmad, A. N. A., Abdul Rahman, N. A., & Nawil, M. N. (2019). Comparative Study of Business Excellence Enablers between Small and Medium Enterprises and Multinational companies : A TQM Survey Result. *International Journal of Supply Chain Management (IJSCM)*, 8(1), 58–63.
- Alkhalidi, B., & Abdallah, A. (2018). Lean Bundles and Performance Outcomes in the Pharmaceutical Industry: Benchmarking a Jordanian Company and Operational Excellence International Project. *Modern Applied Science* , 12(8), 90–102. <https://doi.org/10.5539/mas.v12n8p90>
- Amit, R., & Schoemaker, P. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14(1), 33–46. <https://doi.org/10.2307/2486548>
- Anderson, J. C., Schroeder, R. G., & Cleveland, G. (1991). The Process of Manufacturing Strategy: Some Empirical Observations and Conclusions. *International Journal of Operations & Production Management*, 11(3), 86. <https://doi.org/doi:10.1108/01443579110143016>
- Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27(6), 643–650. <https://doi.org/10.1177/014920630102700602>
- Barney, J. B. (1986). Organizational Culture : Can It Be a Source of Sustained Competitive Advantage? *Academy of Management Review*, 11(3), 656–665.
- Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Brown, S., Squire, B., & Blackmon, K. (2007). The contribution of manufacturing strategy involvement and alignment to world-class manufacturing performance. *International Journal of Operations & Production Management*, 27(3), 282–302. <https://doi.org/10.1108/01443570710725554>

- Calvo-Mora, A., Picón-Berjoyo, A., Ruiz-Moreno, C., & Cauzo-Bottala, L. (2014). Contextual and mediation analysis between TQM critical factors and organisational results in the EFQM Excellence Model framework. *International Journal of Production Research*, 53(7), 2186–2201. <https://doi.org/10.1080/00207543.2014.975859>
- Cesarotti, V., & Spada, C. (2009). A systemic approach to achieve operational excellence in hotel services. *International Journal of Quality and Service Sciences*, 1(1), 51–66. <https://doi.org/10.1108/17566690910945868>
- Department of Statistics Malaysia. (2020). *Performance of Small and Medium Enterprises (SMEs) 2020*.
- Edgeman, R., & Eskildsen, J. (2014). Modeling and Assessing Sustainable Enterprise Excellence. *Business Strategy and the Environment*, 23(3), 173–187. <https://doi.org/10.1002/bse.1779>
- EFQM. (1999). *The EFQM excellence model*. EFQM Brussels.
- Friedli, T., Basu, P., Bellm, D., & Werani, J. (2013). Leading Pharmaceutical Operational Excellence. *Leading Pharmaceutical Operational Excellence Outstanding Practices and Cases*, 411–418. <https://doi.org/10.1007/978-3-642-35161-7>
- Gadenne, D., & Sharma, B. (2009). An investigation of the hard and soft quality management factors of Australian SMEs and their association with firm performance. *International Journal of Quality & Reliability Management*, 26(9), 865–880. <https://doi.org/10.1108/02656710910995064>
- Hayes, R. H., & Pisano, G. P. (1996). Manufacturing Strategy: At the Intersection of Two Paradigm Shifts. *Production and Operations Management*, 5(1), 25–41. <https://doi.org/10.1111/j.1937-5956.1996.tb00383.x>
- Ibrahim, N., Razak, R. C., Wahab, M. H. A. A., Osman, A. A., & Ab Rahman, S. M. (2021). Supply Chain Risks and Roles of the Strategy of Green Supply Chain Management Practices. *Journal of Academic Research in Business and Social Sciences*, 11(7), 752–771. <https://doi.org/10.6007/IJARBS/v11-i7/10322>
- Jaeger, A., Matyas, K., & Sihn, W. (2014). Development of an Assessment Framework for Operations Excellence (OsE), based on the Paradigm Change in Operational Excellence (OE). *Procedia CIRP Conference on Manufacturing Systems Development*, 17, 487–492. <https://doi.org/10.1016/j.procir.2014.01.062>
- Kaynak, H. (2003). The relationship between total quality management practices and their effects on firm performance. *Journal of Operations Management*, 21(4), 405–435. [https://doi.org/10.1016/S0272-6963\(03\)00004-4](https://doi.org/10.1016/S0272-6963(03)00004-4)
- Marković, M. R. (2008). Managing the organizational change and culture in the age of globalization. *Journal of Business Economics and Management*, 9(1), 3–11. <https://doi.org/10.3846/1611-1699.2008.9.3-11>
- Masrom, N. R., Rasi, R. Z. R. M., & Daut, B. A. T. (2017). The Impact of Business Excellence on Operational Performance among Halal Certified Food Manufacturers in Malaysia. *MATEC Web of Conferences*. <https://doi.org/10.1051/mateconf/201713500041>
- Mitchell, J. S. (2015). *Operational Excellence : Journey to Creating Sustainable Value*. Wiley.
- Monem, O. A. (2012). Measuring the impact of Human Resource Management Practices on Organization Performance in pharmaceutical Multinational Companies in Egypt. *Journal of American Science*, 8(11), 186–197.
- Nahm, A. Y., Vonderembse, M. A., & Koufteros, X. A. (2003). The impact of organizational structure on time-based manufacturing and plant performance. *Journal of Operations Management*, 21(3), 281–306. [https://doi.org/10.1016/S0272-6963\(02\)00107-9](https://doi.org/10.1016/S0272-6963(02)00107-9)

- Ojha, S. K. (2015). Operational Excellence for Sustainability of Nepalese Industries. *Procedia - Social and Behavioral Sciences*, 189, 458–464.
- Osman, M. I., Mohammad, R., Yusof, S., & Chelliapan, S. (2021). Development of an operational excellence framework for organisational performance improvement in the Sudanese aviation industry. *Journal of Industrial Engineering and Management*, 14(4), 681–700. <https://doi.org/10.3926/JIEM.3570>
- Pellissier, R. (2009). Innovation in operational excellence in a complex environment. *PICMET: Portland International Center for Management of Engineering and Technology*, 811–825. <https://doi.org/10.1109/PICMET.2009.5262041>
- Porter, M. E. (1991). Towards A Dynamic Theory of Strategy. *Strategic Management Journal*, 12(S2), 95–117.
- Psomas, E. L., Fotopoulos, C. V., & Kafetzopoulos, D. P. (2011). Core process management practices, quality tools and quality improvement in ISO 9001 certified manufacturing companies. *Business Process Management Journal*, 17(3), 437–460. <https://doi.org/10.1108/14637151111136360>
- Romano, K. W. (2003). *The Influence of Organizational Culture, Leadership, and Structure on Operational Effectiveness in the Aerospace Industry* (University of Phoenix; Vol. 1). Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/cbdv.200490137/abstract>
- Saeed, B., Tasmin, R., Mehmood, A., & Hafeez, A. (2020). Exploring the impact of transformational leadership and human resource practices on operational excellence mediated by knowledge sharing: A conceptual framework. *International Journal of Scientific and Technology Research*, 9(2), 4458–4468.
- Shahzad, A., Al-Swidi, A. K., Mithani, D. A., Bt Fadzil, F. H., & Bin Golamuddin, A. G. (2012). An Empirical Investigation on The Effect of Business Environment Factors on The FDI Inflows in Pakistan: The Moderating Role of Political Stability. *Business and Economic Research*, 2(2), 156–170. <https://doi.org/10.5296/ber.v2i2.2597>
- Shehadeh, R. M., Zu'bi, M. F., Abdallah, A. B., & Maqableh, M. (2016). Investigating Critical Factors Affecting the Operational Excellence of Service Firms in Jordan. *Journal of Management Research*, 8(1), 157–190. <https://doi.org/10.5296/jmr.v8i1.8680>
- Slack, N., & Lewis, M. (2011). *Operations strategy* (Third Edit). Pearson Education Limited.
- SME Corporation Malaysia. (2019). SME Annual Report 2018/2019: Entrepreneurship Driving SMEs. In *Official Website SMEcorp Malaysia*.
- Sum, C.-C., Kow, L. S.-J., & Chen, C.-S. (2004). A taxonomy of operations strategies of high performing small and medium enterprises in Singapore. In *International Journal of Operations & Production Management* (Vol. 24). <https://doi.org/10.1108/01443570410519051>
- Treacy, M., & Wiersema, F. (1993). Customer Intimacy and Other Value Disciplines. *Harvard Business Review*, 71(9301), 84–93. <https://doi.org/10.1225/93107>
- Van Assen, M. F. (2011). *Operational Excellence for Services*. *Center of Operational Excellence*, "[Online].[Retrieved February 29, 2012]. Available at: <http://www.vanassen.info/wpcontent/uploads/Position-paper-Operational-Excellence-for-Services.pdf>.
- Wahab, M. H. A.-A. A., Ismail, M., & Muhayiddin, M. N. (2016). The Operational Excellence on Small and Medium Enterprise in Malaysia. *SOCIAL SCIENCES POSTGRADUATE INTERNATIONAL SEMINAR (SSPIS) 2016*, 548–554. Bukit Jambul, Penang, Malaysia.
- Wahab, M. H. A.-A. A., Ismail, M., & Muhayiddin, M. N. (2019a). Influence of Internal and External Environmental Factors on Operational Excellence of Manufacturing Sectors in Malaysia. *International Journal of Academic Research in Business and Social Sciences*,

- 9(2), 961–970. <https://doi.org/10.6007/IJARBSS/v9-i2/5654>
- Wahab, M. H. A.-A. A., Ismail, M., & Muhayiddin, M. N. (2019b). The Effect of Internal Environmental Factors on Operational Excellence of Manufacturing Industry : A Pilot Study. *International Journal of Academic Research in Business and Social Sciences*, 9(2), 1087–1099. <https://doi.org/10.6007/IJARBSS/v9-i2/5666>
- Wahab, M. H. A.-A. A., Ismail, M., & Muhayiddin, M. N. (2020). Critical success factors of operational excellence practices for manufacturing industry. *International Journal of Business Performance and Supply Chain Modelling*, 11(4), 358–376. <https://doi.org/10.1504/IJBPSM.2020.112731>
- Wahab, M. H. A. A., Ismail, M., & Muhayiddin, M. N. (2016). Factors Influencing the Operational Excellence of Small and Medium Enterprise in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 6(12), 285–297.
- Wernerfelt, B. (1984). A Resource based view of the firm. *Strategic Management Journal*, 5(2), 171–180. <https://doi.org/10.1002/smj.4250050207>
- Winter, S. G. (2003). Understanding dynamic capabilities. *Strategic Management Journal*, 24(10), 991–995. <https://doi.org/10.1002/smj.318>
- Yew, O. F. (2014). *Effect of Change Management on Operational Excellence in the Electrical and Electronics Industry*. Universiti Utara Malaysia.
- Yew, O. F., & Ahmad, H. (2014). The Effect of Change Management on Operational Excellence moderated by Commitment to Change : Evidence from Malaysia. *International Journal of Innovation and Applied Studies*, 9(2), 615–631.
- Yew, O. F., Ahmad, H., & Baharin, S. (2013). Operational Excellence and Change Management in Malaysia Context. *Journal of Organizational Management Studies*, 2013, 1–14. <https://doi.org/10.5171/2013>.