Global Business and Management Research: An International Journal
Vol. 16, No. 4s (2024)

Conceptual framework on business excellence criteria influencing Malaysia's electrical and electronics manufacturing companies in achieving business excellence

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Abstract

Purpose: The purpose of this study is to provide a conceptual understanding on the influence of Business Excellence (BE) criteria in achieving business excellence in Malaysia's Electrical and Electronics (E&E) manufacturing companies.

Design/methodology/approach: Based on literature review, the authors have established a linkage that the influence of BE criteria included leadership, strategy, customer, information, workforce and operations are probably contribute positively to the excellence results of the company. This study uses a questionnaire survey method to gather relevant samples in Peninsular Malaysia by using mail and on-site distribution.

Findings: It is expected that the outcomes of this study will identify key variables in explaining the business performance and its results. The findings of this study will present how important of BE criteria in confirming BE results are achieved.

Research limitations/implications: Present study is expected to make significant theoretical contributions. This study proposes Stakeholders theory and Resource-based-view (RBV) theory integration to explore BE criteria that influencing BE's achievement in Malaysia's E&E companies. Therefore, the integration model has greater prediction ability. It would add to the body of knowledge by delivering new facts and empirical insights into the relationship between BE criteria and organisational performances. The outcomes of the inter-relationships between the BE criteria and organisational performance will contribute to the literature on BE. The anticipated stakeholder theory and RBV theory served as the theoretical underpinnings for BE. It will also contribute to theory-building in the BE domain. The limitations from current study suggests future research may focus beyond E&E industry and also explore what are the other criteria more conducive to achieve BE.

Practical implications: Practical adoption BE criteria be able to improve infrastructural decision fields of organisational strategy including customer focus, strategic planning, knowledge management, process improvement and people involvement. Therefore, it has implication on activities relating to BE. In practice, the findings from the study would be beneficial to E&E companies and policy maker of Malaysia when develop Business Excellence Models (BEMs) or frameworks that are more suitable for the industry to achieve excellence performance.

Originality/value: This research possibly the early study to examine the BE deployment in Malaysia's E&E manufacturing companies. The research findings will be determined that all underpinning theories are reliable and valid, also appropriate to the context of Malaysia.

Keywords: BE, E&E, BEMs

Introduction

The concept of Business Excellence (BE) has been at the centre stage of management practices and theory in the past three decades. Several scholars have claimed that management theory was the theoretical underpinning for BE (Lu, Betts & Croom, 2011; Lasrado & Kassem, 2020). The journey of pursuing and achieving BE is challenging in actual practice. Hence, numerous companies have planned to BE journey with step-by-step road maps that will gradually benefit organisations. Van Looy, Backer and Poels (2011) pointed out that the step-by-step guidelines adhere to best practices and serve as a direction for achieving BE. Furthermore, a basic question in the area of business achievement is how companies pursue their BE and sustain their competitiveness (Lu *et al*., 2011; Dahlgaard & Dahlgaard-Park, 2006). Thus, we will debate the opportunity of revitalizing the pursuit of BE in the present study.

The topic of BE and its theoretical frameworks continue to attract the attention of contemporary researchers, even though research development has been ongoing for almost three decades. Firstly, in light of the swift changes in the global business environment, the definition of "business excellence" has continued to evolve (Dahlgaard-Park & Dahlgaard, 2010). Second, there is a growing need to harmonise the heterogeneous measures that academics and practitioners have proposed (Lu et al., 2011). Thirdly, there is a valid and real need to fill up the gaps around the unsuccessfulness of companies to properly identify BE adoption or adaptation (Fok-Yew, 2016). For example, Malaysia Productivity Cooperation (MPC) has remarked that over 4,100 companies in Malaysia have adopted the Business Excellence Framework (BEF), but least E&E manufacturing companies take part in the national Industry Excellence Award. Moreover, the overall number of organisations that took part in the AKI was sixty-three in 2016, forty in 2018, and seventy-eight in 2020, respectively (MITI, 2020). These numbers, compared with 4,100 companies that adopted BEF, were below two percent and far below expectations. The failure of businesses to embrace BE and the low participation rate of E&E corporations are the main concerns that this study is intended to solve.

In today's globalisation and intense competition among business organisations, E&E industry in Malaysia confronts enormous challenges for continued growth, with intensifying competition from Thailand, Korea, China, Vietnam, Taiwan, and the remaining Asian countries. On the other hand, Malaysia is facing a significant economic contest that is caught between disruptive innovation economies around the globe and the low-cost manufacturing economies of Myanmar and Vietnam (The Malaysia Reserve, 2017). Hence, Malaysia's E&E companies are required to have a new series of capabilities and competencies in order to constantly expand their market share as compared their rivals. Moreover, they required a careful analysis of why BE is vital to sustaining long-lasting business. As the long-term backbone of Malaysia's biggest exports, Malaysia's E&E industry should proceed to move up the value chain, achieve competitiveness indices, and move towards world-class companies. Before determining which areas need to be improved, we must first discuss and then access the essential elements within E&E manufacturing organisations, including top management, strategic planning, customer focus, information, employees, processes, and results.

This study intends to measure to what extent the E&E manufacturing companies in Malaysia fare with BE and to define BE criteria as the practices implemented and how they have significant influence in achieving BE by organisations. Moreover, organisational leadership

leads to excellence results in BE over the application of strategy, customer, information, workforce, and operations criteria. To conclude, this study aims to give a conceptual understanding of how BE criteria affect the achievement of business excellence in Malaysia's E&E manufacturing companies.

Literature Review

There are two organisational theories related to BE deployment that will be discussed in this study. Sarkis et al. (2011) defined that organisational theory as "a management insight that can help explain or describe organisational behaviours, designs, or structures." Examples of organisational theories are diffusion of innovations theory, resource-based view theory, social exchange theory, stakeholder theory, etc.

Mkhomazi and Iyamu (2013) claimed that theories that underpin research are not necessary to predict the outcome of that study. However, they are beneficial to scholars searching to recognise a theoretical foundation for their debates. Therefore, this study would review the resource-based view (RBV) theory and stakeholder theory considering they are relevant to the present research topic. The use of RBV can help to clarify when and where an E&E manufacturing company may determine that it has to invest more resources in order to achieve its results and when it is necessary to establish a competitive advantage. On the other hand, sstakeholder theory was selected for this study because it explains how both internal (such as workforce and leader criteria) and external (such as consumer criteria) stakeholders contribute to a company's superior results.

Based on a theoretical point of view, Fonseca (2021) suggested that the BE model is anchored in the RBV theory by Barney (1991, 2001) and the stakeholder theory by Freeman (1984). In the past, some studies revealed that the EFQM (European Foundation of Quality Management) excellence model has a solid conceptual basis in the RBV (Calvo-Mora *et al*., 2005; Castresana & Fernandez, 2005; Zapata-Cantu, 2015). In EFQM 2013's model, the criteria comprise strategy, leadership, partnerships and resources, process, people, products and services, and results. For example, when an employee's intellectual assets are valuable, rare, unique, and non-replaceable from an RBV perspective, they are considered a resource for competitive advantage. Hence, an organisation's competitive advantage is dependent on how it utilises its rare, valuable, inimitable, and non-replaceable resources and fits them together as a system to achieve business objectives (Fonseca, 2021). Hence, the RBV theory is the underlying theory of EFQM.

Stakeholder theory incorporates business and social challenges that are beneficial to all stakeholders (Crane & Ruebottom, 2011). Therefore, the success of an organisation greatly depends on its cooperation with various stakeholders, including organisational leaders, customers, and the workforce (Freeman, 1984). In reality, stakeholder groups have specific interests in the effects of the organisation's activities, which impact to its performance. For instance, community stakeholders may have an influence on an organisation's sustainability performance. Thus, the importance of BE elements or criteria like leadership, strategy, customer, information, workforce, and operations may have different influences on the results of an organisation.

BEMs and BE criteria

Compared to previous TQM frameworks, the Business Excellence Models (BEMs) provide a more comprehensive approach. Nevertheless, the majority of approaches to excellence must be able to trace their roots to the original TQM excellence notion. Precisely, BE permits the complete integration of enhancement events in an enterprise (Zdrilic & Dulcic, 2016). There are several BEMs that were introduced in establishing a model for organisations to achieve BE

performance. Kanji (2002) highlighted that the most well-known BEMs are the Baldrige Excellence Framework ((formally known as the Malcolm Baldrige National Quality Award (MBNQA)), the Kanji's Business Excellence Model (KBEM), the European Foundation for Quality Management Excellence Model (EFQM EM), the Balanced Scorecard (BSC), and the Deming Prize. By concentrating and comparing EFQM and the Baldrige Excellence Framework, which had led to more than 60 countries across the globe introducing their own quality awards on the basis of the principles of both awards (Asif *et al*., 2013). Overall, more than 83 countries have adopted the BEM or framework and organised 96 excellence awards globally.

In Malaysia, the Business Excellence Framework (BEF) was introduced for the first time in 1990. The BEF is a modification of MBNQA. Since 2012, BEF has been set as the generic criteria in the evaluation process to determine the winners of the Malaysia Industry Excellence Award, which occurs every two years. The BEF has seven criteria of excellence namely leadership, strategy, information, customer, people, process, and results. The criteria will facilitate Malaysia's organisations in planning, implementing, and measuring areas of focus linked to excellence results. Consequently, this BEM will be allowed to guide the current research, whereby the leader drives BE elements or criteria in E&E manufacturing companies to achieve BE.

In the present day, organisations have to deliver good results in both economic and non-economic performance. The economic indicator refers to financial results (e.g., profitability and productivity results), while the non-economic indicator refers to sustainability achievements (e.g., customer, people, market, operations, environmental, and society results). However, past studies still found a lack of non-economic measurement for manufacturing companies (Muogboh & Salami, 2009; Longoni *et al*., 2013; Shafiq *et al*., 2017). In fact, pressure arises from stakeholders nowadays who influence a company's sustainability initiatives. In the present study, we would like to measure both economic and non-economic performance metrics under BE results.

Based on a synthesis of the literature, the authors believe that leadership criteria are plausible to contribute positively to the BE achievement of the organisation only in situations where the strategy, customer, information, workforce, and operations criteria are engaged in the practices. On the basis of an empirical review, this study develops a theoretical framework that integrates all critical criteria of BE. The numerous criteria debated in the literature review are expressed diagrammatically to depict the relationship, as displayed as below Figure 1. Furthermore, the research framework conjectures the relationships between BE criteria and the results of organisational BE performance, as shown in Figure 2.

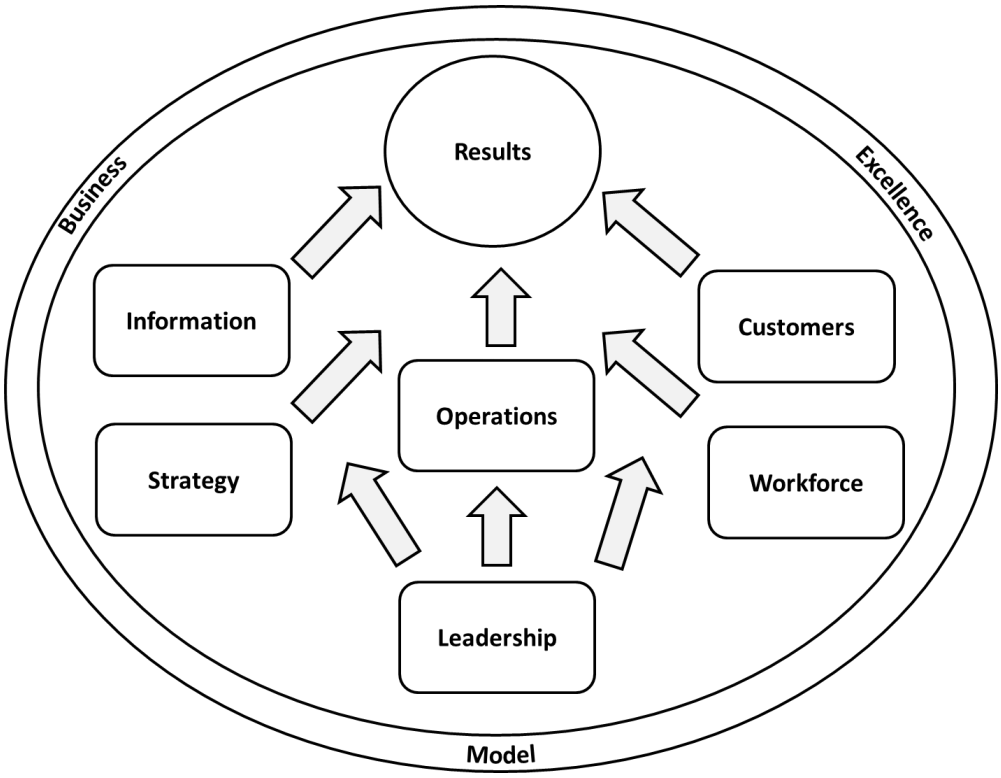

Figure 1: Conceptual Framework

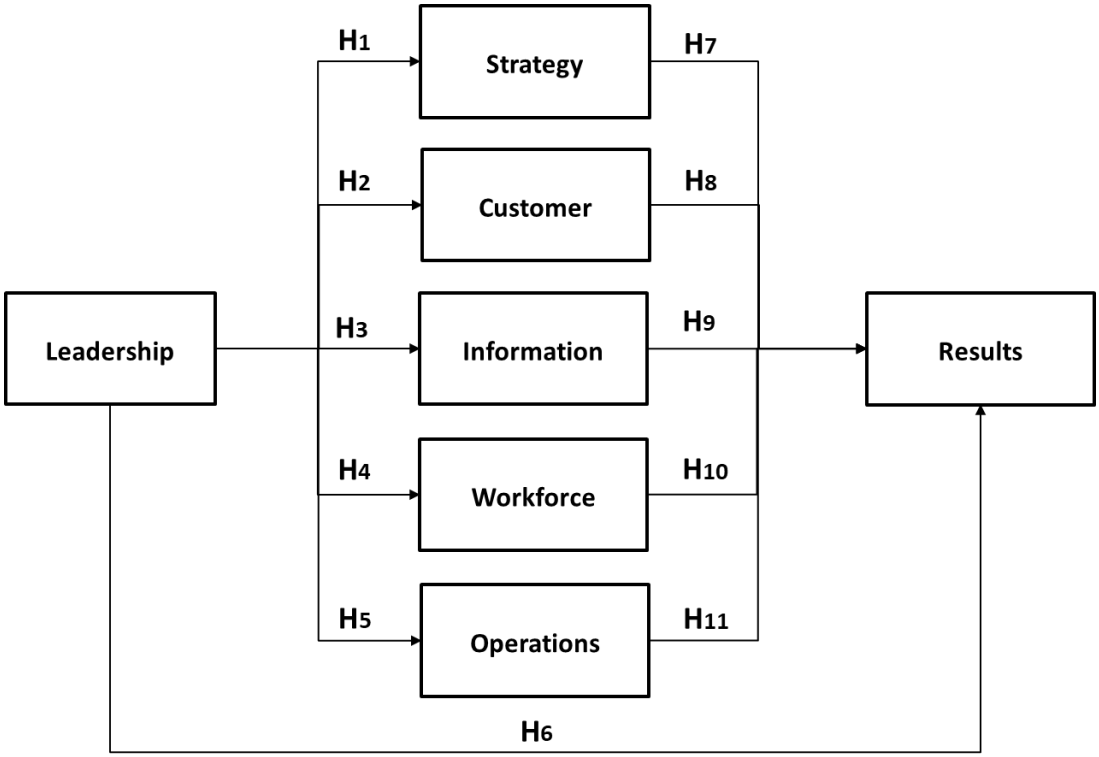

Figure 2: Research Framework

Hypothesis Development

Leadership

Almost all prominent BEMs, including the Baldrige Excellence Framework, EFQM EM, and Kanji's Business Excellence, have place the leadership criterion as a driver for all system elements in the BEM towards the achievement of excellence. Leadership drive, support, transparency, engagement, and consistency throughout the organisation are important for achieving success (Vora, 2013; de Carvalho *et al*., 2018). Effective leader altitude and behaviour have been measured and presented as a particular one of the key drivers towards improving organisational performance and achieving total quality (Juran, 1986). Furthermore, Rao (2016) suggested that organisations should explore the character of soft leadership in reaching organisational effectiveness and excellence. Definitely, a leader's vision for the future has to translate into strategic planning and then turn into reality. Before implementation can begin, the leaders have to convey, establish plans, embrace change, and develop an operating model in their organisation. Under the BEM umbrella, leaders should be role models for an organisation and lead the organisation to deliver value and results.

Oakland and Tanner (2008) argued that a significant relationship exists between the level of leadership excellence and organisational achievement. The results also depicted that leadership excellence has a significant impact on three key stakeholder groups encompassed employee outcomes, customer outcomes, and organisational outcomes, but not on those of society. The insignificant effect was caused by socially complex systems whereby companies face tough times and more resources are required to resolve social and environmental problems. Several empirical studies in the BE field have also concluded that leadership has a positive and direct impact on results (He *et al.* 2011; Masrom *et al.*, 2017; Fok-Yew & Hamid, 2021; Matondang *et al.*, 2018; Peng & Prybutok, 2015). Furthermore, some BE studies on leadership have led to positive outcomes on strategic planning, customer focus, information and knowledge management, workforce, and operations or process (Masrom *et al.*, 2017; Fok Yew & Hamid, 2021; Matondang *et al.*, 2018).

In the present study, we will determine to what extent the leadership in the E&E manufacturing company is driven to achieve BE. Consequently, this research fills a gap in the literature by evaluating extensive data to be collected from Malaysia's E&E manufacturing companies. As a result, we hypothesised that excellence in leadership would drive BE criteria and performances, as stated in the following hypotheses:

H_1: Leadership criterion is positively related to strategy criteria.
H_2: Leadership criterion is positively related to customer criteria.
H_3: Leadership criterion is positively related to information criteria.
H_4: Leadership criterion is positively related to workforce criteria.
H_5: Leadership criterion is positively related to operations criteria.
H_6: Leadership criterion has a causal positive influence on the results of business excellence.

Strategy

Strategy is one of the crucial BE criteria used in strategy development and implementation by excellence organisations (NIST, 2023). Senior leaders embrace of strategic planning is vital, which permits appropriate organisation resource distribution and explains their priorities for action. In addition, business strategies that match the missions and objectives of organisations, improve competitive advantage by achieving superb performance (Samawi *et al*., 2018; Zott & Amit, 2008). Afthonidis and Tsiotras (2014) revealed that a strategic plan aids a company in reinforcing its market position and observed it as a suitable technique for achieving BE. In

contrast, inadequate strategic planning, a lack of worker autonomy, a scarcity of financial resources, and poor integration are the main challenges that leaders face when implementing BE (Aladwan & Forrester, 2016). Past studies showed strategy criterion influence organisational performance (Fok-Yew & Hamid, 2021; Matondang *et al.*, 2018). As a result, we suggest this strategy would lead to have a positive influence on BE achievement.

H_7: Strategy criterion has a causal positive influence on the results of business excellence.

Customer

In today's competitive climate, customers are pushing organisations to embrace initiatives not only for continual improvement in quality but also to fulfil environmental regulations and social expectations. Bento and Tontini (2018) explained that customer-focused organisations that address and manage the present and most recent needs and wants of customers, identify customer satisfaction and control customer relationships successfully. Masrom *et al*. (2017) examined a hundred halal-certified food manufacturer in Malaysia and discovered that customer focus has a relationship with performance in operations. The researchers concluded that organisational resources must be allocated to fulfil the needs of the customer. Studies within the MBNQA model conducted by Peng and Prybutok (2015) and Matondang *et al.* (2018) also found that customers influence performance. Thus, it will be interesting to explore whether customer criteria have a significant relationship with business BE. The hypothesis is proposed as follows:

H_8: Customer criterion has a causal positive influence on the results of business excellence.

Information

The effective sharing of information and knowledge in an organisation is an important element of an excellence approach (Vartiak & Jankalova, 2017). In practice, the organisation would learn from other organisations about ways to improve, like benchmarking and best practices, and make sure information and knowledge are reserved, shared, and retained under the knowledge management domain. Organisations searching for excellence have to develop knowledge management processes that grant important information to be developed, compiled, stored, and utilised. An organisation can then use that information effectively towards the continual improvement of quality, processes, products, and services for good performance. Furthermore, organisations that invest in knowledge are required to be capable of distinguishing competences and acquiring dynamic capabilities so that they can lead the organisation to excellence (Criado-García *et al.*, 2019). Knowledge management influences organisational performance (Matondang *et al.*, 2018). Therefore, the effectiveness information criteria would drive performances, as specified in the following hypothesis:

H_9: Information criterion has a causal positive influence on the results of business excellence.

Workforce

Employees are acknowledged as the most vital asset by both academics and practitioners in today's organisations (Bakotic & Rogosic, 2017). An organisation could not attain its objectives and survive without employees. Hussain, Edgeman and Eskildsen (2018) argued that it appears not possible to attain BE in the workplace without the participation and engagement of each employee. In the knowledge sharing process, organisations' employees can transfer and exchange their knowledge, develop new knowledge, and acquire competencies that improve company output (Azeem, Aziz & Hayat, 2021). Consequently, a successful

organisation is more likely to have highly engaged employees. In past studies within the MBNQA model, workforce criterion influences performance (Matondang *et al*., 2018; Peng & Prybutok, 2015). In view of this, this research makes the assumption that:

H_{10}: Workforce criterion has a causal positive influence on the results of business excellence.

Operations

According to operations criteria, organisations have to focus into its operations for the purpose to support its strategies and policies, generate increasing value and fully satisfy for its stakeholders included customers (MBEF, 2020). Managers vital train and work with line employees to align their behaviour and system mindset, management approaches and redesigned operations to reach positive change. For example, Japanese concept of 5S in workplace is to help in building a consistently high-quality operations and a better working environment. Besides, the application of process capability enhancement can obtain quality excellence through the quality management process. In practice, most of the manufacturers seek to diminish the complexities of manufacturing operations such as by reducing process steps of making products, simplifying the organisational structure and minimize the physical constraints (Jadhav, *et al*., 2015). Besides, interaction of resources takes place for manufacturing operations changing or process improvement and it is critical to get everyone involved. In fact, the operations improvement has emerged to enhance the effectiveness or efficiency of an operation towards BE. The empirical evidence has proven that operation focus or process influence performance (Fok-Yew & Hamid, 2021; Matondang *et al.*, 2018; Peng & Prybutok, 2015). Given these facts, we suggest that:

H_{11}: Operations criterion has a causal positive influence on the results of business excellence.

Methods

This cross-sectional research employs a self-structured questionnaire to gather data from a sample of a population. In this context, the population is from E&E manufacturing companies in Peninsular Malaysia that are appearing in the Federation of Malaysian Manufacturers (FMM) Industry Directory 2022 of Malaysian Manufacturers (FMM, 2021). Therefore, a study sample will be chosen from the latest FMM directory. Since the study is concerning BE criteria deployment and results, the respondents at the managerial level, as those known in-charge of running production and operations, and business excellence activities, shall be considered. The respondents may include a Business/Operational Excellence Manager, Lean Manager/Coordinator/Specialist, Continuous Improvement/Kaizen Coach/Manager, Team Leads/Managers who involve Operations, and the company's BE consultant. The unit of analysis is an organisation. Therefore, one respondent will represent one organisation.

The quantitative research method and design proposed for this research is the most appropriate given the objective and problem statement of the study. This quantitative research study aims to examine the BE criteria for achieving BE, based on the views of the managers who represent their company. Once a set of questions has been developed for the present study, several manufacturing companies will be selected to participate in the pilot test. Upon completing the task of data gathering, a pretest will be carried out to confirm the validity of the research design, response rate, and inter-rater agreement. The validity and reliability of the independent variables, dependent variables, and outcomes will then be assessed using factor analysis and reliability analysis. After the data collection phase, Partial Least Squares (PLS), Microsoft Excel, and Statistical Package for Social Science (SPSS) will be utilised to analyse the data. Above suggested tools are common data analysis tools use in quantitative research. The authors

will utilise the SPSS tool for the data screening step and later test for common method variance to verify common bias. Following this, apply the PLS method for the inner and outer model measurements. PLS analysis will be chosen in the current study to assess the proposed framework in view of the complex nature of the model and predict a small sample size.

Findings

It is expected that the outcomes of this study will identify key variables in explaining business performance and its results. The findings of the inter-relationship between BE criteria and results of organisational performance will fill up a few important gaps in the literature. The findings will present the essentials of how BE criteria confirm BE are achieved. This study also desires to provide managers and MPC with a new insight of the model in order to determine the fitting framework of BE (e.g., extended BEF) based on organisational needs. In addition, the findings of this study may help top management develop policies, key processes, and systems that incorporate all critical elements or criteria in their strategic plan and direction, and then move forward on a BE journey.

Discussion and Conclusion

This study intends to measure to what extent the E&E companies in Malaysia fare with BEM and to define BE criteria as the practices used and to what extent they have influenced organisations from a BE perspective. Moreover, the leadership of the organisation drives to attain greater results in BE over strategy, customer, information, workforce, and operations criteria. Hence, this research fills a gap in the literature by evaluating extensive data collected from Malaysia's E&E manufacturing companies.

This study gives a conceptual understanding of the influence of BE criteria on achieving BE. The literature synthesis leads to the development of a conceptual framework that integrate the influence of BE criteria to BE. By the end of this study, it will determine the effect of each criterion of BE on performance results. In addition, it also provides evidence of leadership in the relation to each criterion of BE.

In contrast to most past studies that designated each element or criterion individually, this study will demonstrate the combination of all BE criteria to predict BE in the E&E industry. The driver of leadership has fuelled changes in entire organisations, which may help in improving BE results in Malaysia's E&E organisations. Hence, it is expected that the outcomes of this study will identify key variables in explaining business performance. Moreover, the results are expected provide a reliable theoretical framework that could be used for future research if their scope of study is similar.

According to the suggested framework as stated above, this paper is anticipated to provide numerous contributions to theory, practice, and methodology. On top of economic measures, this study has imposed non-economic measures (e.g., social and environmental results) in composite performance metrics. Thus, it contributes to the methodology viewpoint.

Theoretical Implications

The outcomes of this research would add to the body of knowledge by introducing new facts and empirical insights into the relationship between BE criteria and BE performances. The results of the inter-relationships between the BE criteria and the relationship between BE criteria and organisational performance will contribute to the literature on BE. In addition, the anticipated stakeholder theory and RBV theory served as the theoretical underpinnings for BE. It will also contribute to theory-building in the BE domain.

Practical and Social Implications

This study has further recognised the significance of BEM as a strategic tool that could be proficiently used by organisations to allow management to make the best application of BE criteria or tools to improve their operations, fulfil customers' needs, and comply with environmental and social expectations. Practical adoption of BE criteria will be able to improve infrastructural decision fields of organisational strategy, including customer focus, strategic planning, knowledge management, process improvement, and people involvement

Another anticipated practical contribution of this study includes organisations that aspire to foster excellence leadership might incorporate these insights into the selection and development process for their future leaders. The outcomes of this study may provide a new insight to practitioners and policy makers (like MPC and MITI) that is part of the continuous improvement of existing Malaysia's BEF. Therefore, Malaysia's policy makers should develop Business Excellence Models (BEMs) or frameworks that are more suitable for the industry to achieve excellence in performance.

Limitations and Suggestions for Future Research

The present study is limited to the E&E industry, where the intended data will be gathered from a sample of respondents working in Malaysia's E&E organisations. The future research area may focus beyond the E&E industry, such as Industry 4.0 companies on those organisations that are broadly adopting digital technologies and other automation for cost reduction, higher productivity, and seeking operational excellence and growth. It is obvious that leadership is a key factor for BE achievement in the present study, and its influence power will be the subject of future research to investigate which type of leadership traits or styles are more conducive to achieving BE.

References

Afthonidis, E., & Tsiotras, G. (2014). Strategies for business excellence under an economic crisis. *The TQM Journal, 26*(6), 610-624.

Aladwan, S. A., & Forrester, P. (2016). The leadership criterion: challenges in pursuing excellence in the Jordanian public sector. *The TQM Journal, 28*(2), 295-316. https://doi.org/10.1108/TQM-08-2014-0064

Asif, M., & Matthias H. J. & Gouthier (2014). What service excellence can learn from business excellence models?. *Total Quality Management & Business Excellence, 25*(5-6).

Azeem, M., Aziz, S., & Shahid, J. (2021). The impact of customer-centric business strategies on customer relationship management: pharmaceutical field-force perspective. *International Journal of Pharmaceutical and Healthcare Marketing*, DOI 10.1108/IJPHM-09-2020-0083

Bakotic, D., & Rogosic, A. (2017). Employee involvement as a key determinant of core quality management practices. *Total Quality Management & Business Excellence, 28*(11-12), 1209-1226. DOI: 10.1080/14783363.2015.1094369

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99–120. https://doi.org/10.1177/014920639101700108

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

Bento, G. D. S., Tontini G., & Tontini, G. (2018). Developing an instrument to measure lean manufacturing maturity and its relationship with operational performance. *Total Quality Management & Business Excellence, 1*(19).

Calvo-Mora, A., Leal, A., & Roldan, J. L. (2005). Relationships between the EFQM model criteria: a study in Spanish universities. *Total Quality Management, 16*(6), 741-770.

Castresana, J. I., & Fernandez, R. (2005). Theoretical foundation of the EFQM model: the resource-based view. *Total Quality Management, 16*(1), 31-55.

Crane, A., & Ruebottom, T. (2011). Stakeholder theory and social identity: Rethinking stakeholder identification. *Journal of Business Ethics, 102*(S1), 77–87. https://doi.org/10.1007/s10551-011-1191-4

Criado-García, F., Calvo-Mora, A., & Martelo-Landroguez, S. (2019). Knowledge management issues in the EFQM excellence model framework. *International. Journal of Quality & Reliability Management*. DOI 10.1108/IJQRM-11-2018-0317

Dahlgaard, J.J., & Dahlgaard-Park, S. M. (2006). Lean production, six sigma quality, TQM and company culture. *TQM Magazine, 18*(3), 216–237.

Dahlgaard-Park, S. M., & Dahlgaard, J. J. (2010). Organisational learnability and innovability: A system for assessing, diagnosing and improving innovations. *International Journal of Quality and Service Science, 2*(2), 153–175.

de Carvalho, A. M., Sampaio, P., & Rebentisch, E. (2018). Business Excellence Models: supporting the cultural perspective to operationalize excellence sustainability in manufacturing organisations. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, Washington DC, USA, September 27-29, 2018.

FMM. (2022) *FMM-MATRADE industry directory electrical and electronics Malaysia 2017/18*, Kuala Lumpur: Federal of Malaysian Manufacturers (FMM).

Freeman, R. E. (1984). *Strategic Management: a stakeholder approach*. Pitman.

Fonseca, L. (2021). The EFQM 2020 model. A theoretical and critical review. *Total Quality Management & Business Excellence.* DOI: 10.1080/14783363.2021.1915121

Fok-Yew, O. (2016). The Mediating Role of Lean Engagement on Lean Practices and Business Excellence in Malaysia Electrical and Electronics Companies. *International Journal of Academic Research in Economics and Management Sciences, 5*(2), 2226-3624.

Fok-Yew, O., & Hamid, N. A. A. (2021). The Influence of Lean Practices and Leadership on Business Excellence: Malaysian E&E Manufacturing Companies. *Estudios Economic Aplicada, 39*(4).

He, Z., Hill, J., Wang, P., & Yue, G. (2011). Validation of the theoretical model underlying the Baldrige criteria: Evidence from China. *Total Quality Management & Business Excellence, 22* (2), 243-263. Retrieved from http://dx.doi.org/10.1080/14783363.2010.545562

Hussain, T., Rick Edgeman, R., & Eskildsen, J. K. (2018). Knowledge-based intellectual structure of research in business excellence (1995–2015). *Total Quality Management & Business Excellence*. DOI: 10.1080/14783363.2018.1468752

Jadhav, J. R., Mantha, S. S., & Rane, S. B. (2015). Roadmap for Lean implementation in Indian automotive component manufacturing industry: comparative study of UNIDO Model and ISM Model. *Journal of Industrial Engineering International, 11*(1), 179–198.

Juran, J. M. (1986). Quality trilogy. *Quality Progress,* August, 12-24.

Kanji, G. K. (2002). *Measuring Business Excellence,* London/New York: Routledge.

Longoni, A., Pagellb, M., Johnstonc, D., & Veltrid, A. (2013). When does lean hurt? – an exploration of lean practices and worker health and safety outcomes. *International Journal of Production Research, 51*(11), 3300-3320.

Lu, D., Betts, A., & Croom, S. (2011). Re-investigating business excellence: Values, measures and framework. *Total Quality Management & Business Excellence, 22*(12), 1263-1276.

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, 135, 00041*.

Matondang, N., Alda, T., & Nasution, H. (2018). Model development based on baldrige excellence framework criteria in palm oil factory. *SEMIRATA- International Conference on Science and Technology 2018, IOP Conf. Series: Journal of Physics: Conf. Series 1116 (2018) 022025.*

MBEF. (2020). Malaysian Business Excellence Framework. https://www.mpc.gov.my/enterprise_business_excellence (Assessed on 29 August 2023).

Ministry of International Trade and Industry (MITI). Anugerah Kecemerlangan Industri (AKI) 2019/2020 (2020). Retrieved from https://aki.miti.gov.my/

Mkhomazi, S. S., & Iyamu, T. (2013). A Guide to Selecting Theory to Underpin Information Systems Studies. *International Federation for Information Processing 2013*.

Muogboh, O. S., & Salami, A. (2009). A New Perspective on the Manufacturing Strategy: Performance Relationship. *International Journal of Business Research*, 9(3), 114-126.

National Institute of Technology (NIST). (2023). Baldrige Award Recipient Information. Retrieved from https://www.nist.gov/news-events/news/2023/01/2023-2024-baldrige-excellence-framework-businessnonprofit-now-available

Oakland, J. S., & Tanner, S. J. (2008). The relationship between Business Excellence and Performance - An empirical study using Kanji's Leadership Excellence Model. *Total Quality Management, 19*(7-8), 733-749.

Peng, X., & Prybutok, V. (2015). Relative effectiveness of the Malcolm Baldrige National Quality Award categories. *International Journal of Production Research, 53*(2), 629-647. DOI: 10.1080/00207543.2014.961207

Rao, M. (2016). Debunking myths about soft leadership and exploring it to achieve organisational excellence and effectiveness. *Industrial and Commercial Training, 48*(7), 362-366.

Samawi, G. A, Abu-Tayeh, B. A., Yosef, F., Mdanat, M., & Al-Qatawneh, M. I. (2018). Relation between Total Quality Management Practices and Business Excellence: Evidence from Private Service Firms in Jordan. *International Review of Management and Marketing, 8*(1), 28-35.

Sarkis, J., Zhu, Q., & Lai, K-H. (2011). An Organizational Theoretic Review of Green Supply Chain Management Literature. *International Journal of Production Economics, 130*(1), 1-15. DOI: 10.1016/j.ijpe.2010.11.010

Shafiq, M., Lasrado, F., & Hafeez, K. (2017). The effect of TQM on organisational performance: empirical evidence from the textile sector of a developing country using SEM. *Total Quality Management & Business Excellence,* DOI:10.1080/14783363.2017.1283211.

The Malaysia Reserve. (2016). Malaysia facing biggest economic challenge. Retrieved from https://themalaysianreserve.com/2017/04/03/malaysia-facing-biggesteconomic-challenge/

Van Looy, A., De Backer, M., & Poels, G. (2011). Defining business process maturity. A journey towards excellence. *Total Quality Management & Business Excellence, 22*(11), 1119-1137.

Vartiak, L., & Jankalova, M. (2017). The Business Excellence assessment. TRANSCOM 2017: International scientific conference on sustainable, modern and safe transport. *Procedia Engineering, 192*, 917-922.

Vora, M. K. (2013). Business excellence through sustainable change management. *The TQM Journal, 25*(6), 625-640.

Zapata-Cantu, L., Delgado, J. H. C., & Gonzalez, F. R. (2016). Resource and dynamic capabilities in business excellence models to enhance competitiveness. *The TQM Journal, 28*(6), 847-868, https://doi.org/10.1108/TQM-03-2014-0030

Zdrilic, I., & Dulcic, Z. (2016). Business Excellence as a Success Factor for the Performance of Large Croation Enterprises. *Management, 21*(1), 145-162.

Zott, C., & Amit, R. (2008). The fit between product market strategy and business model: Implications for firm performance. *Strategic Management Journal, 29*(1), 1-26.