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Student's Full Name:	Mahmoud Yehia Mahmoud Abdalla Abou Kamil
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E-SIGNATURE:

DATE:

04/10/2022

EIU Paris City Campus

Address: 59 Rue Lamarck, 75018 Paris, France | **Tel:** +33 144 857 317 | **Mobile/WhatsApp:** +33607591197 | **Email:** paris@eiu.ac

EIU Corporate Strategy & Operations Headquarter

Address: 12th Fl. Amarin Tower, 496-502 Ploenchit Rd., Bangkok 10330, Thailand | **Tel:** +66(2)256923 & +66(2)2569908 | **Mobile/WhatsApp:** +33607591197 | **Email:** info@eiu.ac

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Abstract

This thesis examines the significance of operations capability dimensions and how manufacturing firm characteristics are related to them. It assesses whether managers and academics should comprehend operations capabilities and how they vary depending on the characteristics of manufacturing firms in high-cost environments. According to empirical research, delivery, price, and flexibility are the order-winning criteria in high-cost situations, with quality coming in second. However, the significance varies greatly depending on the different manufacturing business features. These insights can be used by managers of manufacturing companies in high-cost situations to validate and modify their operations plan to gain a competitive edge.

1. Chapter One Introduction

1.1 Rationale for the Research (Research Background)

Demand for new goods and services is rising as a result of a more competitive economy. Companies must provide high-quality, flawless products, flawless services, as well as newly created products in order to be competitive (Koufteros et al., 2002). Additionally, due to a lack of resources like time and human capital, businesses are unable to quickly alter their manufacturing processes (Sansone et al., 2017). Therefore, the main goal of this research is to create a suitable framework for managing and evaluating the interface between an organization's production systems and marketing strategies. This will boost manufacturing companies' productivity, enhancing their competitive advantage.

Time-to-market has become more crucial and crucial to distinguish the competitors and to maintain a company's long-term competitive advantage as a result of the increased rivalry that manufacturing firms are experiencing due to shorter product life cycles. Manufacturing companies must adopt competitive skills with a strong customer focus and superior strength relative to the competition to thrive in this competitive environment (Hallgren et al., 2011).

The main goal of the study is to identify the elements that influence restoring among Swedish manufacturing companies. To do this, we first do a literature analysis to see what prior studies on restoring have discovered. We want to create a research agenda for future investigations of restoring in Swedish manufacturing enterprises by critically evaluating previous research. A client relationship management instrument that we designed specifically for this agenda was used to survey 121 respondents (top management/senior managers at small- and medium-sized businesses) as part of this agenda. Low-cost settings have emerged as a result of the expansion of manufacturing businesses on the international market. The majority of this advancement and growth may be attributed to the efficient use of labor, energy, and raw materials, as well as to existing, more convenient access to transportation hubs and a consistent political climate (Bailey & Propriis, 2014; Tate et al., 2014). These variables have an impact on the customers and market forecasting for delivery flexibility in addition to the product and organization service quality (Bailey & Propriis, 2014; Tate et al., 2014). Organizations need new types and sorts of talents to have and sustain the leadership in the many marketplaces as a result of the complicated and convoluted business policies and the expanding product and service ranges. One of the important areas where organizations need to boost performance based on new sorts of capabilities is operations. Therefore, the main goal of this study is to find out how operations managers view their existing situation in relation to these new types of capabilities. An empirical survey that sought to

understand operations managers' perspectives on the development requirements for six important operations capabilities that had previously been examined by academic and industrial researchers was done in order to provide answers to these issues. Long-term competitive advantage is said to be built on strategic competencies. Strategic capabilities describe how businesses use their core strengths, best practices, and collective learning to build and maintain competitive advantage (Grant et al., 1996; Mohr & Spekman, 2003).

1.2 Research Questions

A thorough literature review on capability dimensions and capabilities is missing due to the operational capabilities' rising importance. The goal of this research project is to close this gap by examining the current state of operational capability dimensions and capabilities in various market contexts, with a particular emphasis on manufacturing firms operating in both high- and low-cost environments.

In order to develop and maintain a competitive advantage in today's high-cost market, operational capabilities must be measured and evaluated in the initial stage of goal achievement. Hilletoft and Sansone's (2018) framework provides improved group operations capability. Additionally, their research demonstrates that these characteristics affect company performance more than particular tasks or inputs. This study focuses on how strategic management can help businesses operate better. Prior research is necessary to accomplish this goal so that we may formulate research topics. Consequently, this thesis's initial research question is:

RQ1: How do operations capability dimensions in a high-cost environment contribute to competitive advantage and which ones are important?

For the examination of industrial firms, regression analyses are crucial. While accounting for other variables, the goal is to isolate a group of independent variables that are significant. This study explains which attributes and operational skills are crucial for understanding and facilitating the features of manufacturing firms. Consequently, this thesis' second research question is:

RQ2: How do the important operations capability dimensions and operations capabilities differ based on manufacturing firm characteristics?

And to address the research topics, a survey study of manufacturing companies in Saudi Arabia's high-cost environments will be carried out.

2. Literature Review

In order to assist the empirical inquiry in chapter 2, the main goal of this research chapter is to provide a general overview of the existing research on restoring, competitive advantage, and operations strategy. As a result, it discusses relevant literature and provides background information on the research issues. A summary of pertinent research on restoring and its relationship to competitive advantage is provided in the literature review, along with an explanation of important words like strategic capabilities and operations strategy. Additionally, this chapter offers additional information on other operational capability kinds, such as production procedures, quality management, inventory management, and product development.

2.1 Operations Management – strategy

To achieve the business goals, the operations strategy focuses on organizing and integrating the organization's business processes, supply chain management, and operations (Cruz & Rodriguez, 2008). A key component of building a successful and profitable firm is the alignment of business and operations. Operations strategy is more than just the best scheduling algorithm, inventory control system, or production method. Much more than that is involved. It includes every aspect of a company's operational structure, including all aspects of its activities related to production, such as marketing, sales, manufacturing, etc.

The most crucial element of operational excellence is operations management strategy, which provides a number of recommendations for understanding and realizing how to achieve both company goals and the goals of manufacturing operations tasks (competitive priorities) (Sansone et al., 2017). This technique enables and effectively distributes resources that can be used to lower costs or generate more money (Koufteros et al., 2002).

Operations capabilities and the company strategy are closely related. The talents required to implement a successful company strategy are known as operations capabilities. For instance, if a business wants to innovate through product design and release new products onto the market, it needs certain product design expertise that their rivals might not have. These abilities make up a crucial core ability that gives one an edge over rivals. In contrast, other businesses focus on creating cost-effective products while attempting to stand out from competitors by exploiting their operational capabilities, despite having a very low priority relative to other businesses (Größler & Grübner, 2006).

2.1.1 Competitive priorities

Competitive priorities are the factors taken into account during the process of strategic performance management that have to do with an organization's overall competitiveness and capacity to resist competition. According to Hayes and Wheelwright (1984), competitive priorities are "the method and mode of competition of the firms, it was also mentioned that these things must be contained to sustain the firm's competitive strategy."

Since they determine how well a firm can compete in the market rather than what enterprises should do to be competitive, operations capabilities are crucial to manufacturing businesses. The current study makes the case that operations capabilities are simply a collection of strategies and tactics that, in the end, enable businesses to meet goals for profitability, excellence, and efficiency. However, not all businesses operating in the same market environment place equal importance on these goals. It has been shown that operations capabilities may be divided into two groups, which are concentrated on creating the value chain design and increasing the effectiveness of the supply chain through tactical activities (Prester et al., 2016).

2.1.2 Operations capabilities

Operations capabilities are well-known and defined as a group of resources, skills, and practices that enable businesses to achieve successful results (Geraci et al., 2001). To create a proper competitive advantage in various market situations, which will serve as the foundation for rivalry between firms, operations capabilities must be improved and developed as a key component of the operations strategy. The ability to deploy organizational resources to organizational operations is referred to as an operations capability.

Maintaining and expanding operations capabilities in order to meet changing needs is a crucial component of the operations strategy. Therefore, in order to implement the company, you must anticipate changes in the market. Therefore, operational capabilities must be very active and dynamic in order to reflect changes in the market fast on the products and services, setting the organization apart from its competitors.

The seven operations capabilities dimensions (cost, delivery, quality, service, sustainability, flexibility, and innovation) and associated procedures are the focus of this study report. Cost, flexibility, quality, and delivery are the four primary operations capability characteristics that literature has created and developed (Ferdows & De Meyer, 1990; Größler & Grübner, 2006; Hallgren, 2007). Due to the constant pace of change in both the markets' new technology and the social elements, three additional dimensions

had to be included for recognition in literature: Service, innovation, and sustainability (Alsmadi et al., 2011).

2.2 Operations capability framework

It was possible to compile a thorough list of crucial operational capabilities, yielding Table 1. It is crucial to note that this operational competence framework is based on a thorough, methodical evaluation of the literature and a number of case studies. It can be argued that this framework is suitable to all sorts of organizations and small businesses with limited operations personnel who are unable to construct their own practice management systems due to this complete view of the various studies (e.g., because they do not have the internal capabilities or the budget). The framework ought to be suitable to major organizations who currently have a practice management system but want to enhance it by incorporating specific skills into their methodology.

Dimension	Capability	Definition
Cost	Cost efficiency	We consider it as The ability to distribute and manufacture products at a low cost
	Process efficiency	The capability of maximizing utilization of process resources
	Flow efficiency	The capability of maximizing the output of the process
Quality	Product quality	The capability of manufacturing high performance products
	Process quality	The capability of manufacturing with consistent quality
	Product durability	The capability of manufacturing durable products
Delivery	Delivery dependability	The capability of delivering on time
	Delivery speed	The capability of delivering in a short time
Flexibility	Delivery flexibility	The capability of changing delivery times and quantities within the agreed upon delivery time
	Volume flexibility	The capability of responding to changes in demand volume
	Product mix flexibility	The capability of changing the manufacturing product mix
	Product flexibility	The capability of customizing products based on customer requirements
	Product line flexibility	The capability of providing a wide range of products with different features

Service	Customerservice	The capability of providing customers with service prior to product delivery
	After sale service	The capability of providing customers with service after product delivery
	Advertising	The capability of advertising and promote products
	Distribution	The capability of distributing products broadly
Innovation	Product innovation	The capability of developing and introducing new products
	Technology innovation	The capability of developing and implement new technologies
	Service innovation	The capability of developing and introducing new services
	Market innovation	The capability to find and exploit new markets and opportunities
Sustainability	Product sustainability	The capability of manufacturing sustainable products
	Process sustainability	The capability of manufacturing and distribute products in a sustainable way
	Employee flexibility	The capability of employees to perform different types of tasks (Multi Task).

Cost dimension

Cost efficiency is the capacity to make money in a market that is competitive while lowering the costs of production and distribution via the use of new technologies and distribution networks.

Cost efficiency is the capacity to make a profit in a market that is competitive while lowering manufacturing and distribution costs through investments in technology and new distribution methods. The degree to which sales and earnings are raised while reducing production and distribution expenses is referred to as cost efficiency.

The capacity to maximize the usage of process resources is the second operations competency in the cost dimension (process efficiency). To boost capacity utilization, businesses must make the best use of their available resources (machines, personnel, and equipment) (Alsmadi et al., 2011; Sansone et al., 2017). In order to maximize capacity utilization, corporations also priorities this while taking the cost dimension into account (Chi, 2010).

One crucial way to maximize the utilization of process resources is to increase process efficiency. Because they are created to provide safety margins and generate a high-quality result, processes frequently produce more material than is required. Waste and unused capital equipment may result from this.

The capacity to maximize a process' output is the third operational capability in the cost dimension. This takes into account things like labor and machine productivity and efficiency in order to boost output by concentrating on enhancing both labor and machine productivity and efficiency.

The capacity to maximize output is a crucial element for increased competitiveness. This covers the effectiveness and productivity of both labor and machines. A higher output will boost competition (Sansone et al., 2017).

3. Research methodology

The research philosophy serves as the foundation for this thesis' research approach. This attitude is supported by the study's conceptual framework, which is based on an inductive and comprehensive methodology. The next chapters go into depth on how this research philosophy has been applied to survey design, data analysis, and all areas of quality control.

3.1 Research philosophy

The core notion, which denotes presumptions regarding the nature and existence of reality, is the primary assumption of this investigation. This study accepts the relativism's numerous "truths" that "change from region to area and from era to period" and its ontology (Easterby-Smith et al., 2015, p. 50). I believe that the essential operational skills vary depending on the various surroundings as well as the various types and styles of manufacturing companies.

The ontology of choice for this theory is relativism. According to relativism, reality produces a variety of truths that depend on contextual and environmental elements. We think that crucial limitations change for different manufacturing enterprises given the complexity of vital operational skills.

3.2 Research approach

A deductive methodology is applied in this thesis. This decision was supported by testing and evaluation of the framework to make it more empirically focused. The framework was built on the framework of prior academic research on operational level capabilities. Semi-structured interviews were performed as part of a qualitative data collection technique to gain descriptive information. This strategy is related to the notion of positivist epistemology and its key claim regarding the use of quantitative methods when constructing theories and evaluating various hypotheses (Saunders et al., 2016). Qualitative research enables us to both explore new areas and practically implement our results (Bryman & Bell, 2011; Saunders et al., 2016).

According to Saunders et al. (2016), a quantitative study is ideal when a researcher wants to quantify and assess the degree of relationship between or among numerous factors, such as math aptitude and IQ. The relationship between the independent and dependent variables must be examined by the author. The author will come up with a number of questions that participants must respond to base on their comprehension of the ideas presented in each topic. To help and make the responses more convenient to provide, the study questions will be methodically explored in the questionnaire, which will be prepared electronically or in hard copy.

3.3 Research design

The goal of the research project is to measure and assess the operational capability framework in a high-cost environment. The primary goal of the research is to identify the degree to which the vast services contribute to the growth of an organization's operational skills and its exemplary supply chain practices. Therefore, it was crucial to identify the research components by talking about the theoretical viewpoints. And the process for gathering data was described, after which the procedures for data analysis will be displayed in accordance with the goals that have been set.

3.4 Data Collection

In order to ensure that the survey data gathered would be accurate, valid, and of high quality, the questionnaire was developed and prepared. It is crucial to convey the significance of the study as well as the value of participation by stating the research's objective in order to pique the respondents' interest. As a result, following explaining the goals of this research study, the design introduction section was used. It was crucial for expressing in a straightforward manner how valuable it is for both sides to participate in this study and submit information (Rea & Parker, 2014). It also offered assurance regarding concerns with privacy and confidentiality. In addition to these benefits, introduction questions were asked before inquiries into respondents' backgrounds, which were then followed by additional pertinent inquiries into aspects of corporate characteristics.

The pre-objectives tests were to validate the data already gathered from the market survey and guarantee that the questions were unambiguous, understandable, and straightforward. This was done in advance of the main data gathering approach since it gave us a better grasp of the questionnaire's accuracy and quality, allowing us to spot any mistakes or linguistic biases. Due to the limited number of replies we obtained, we were able to determine whether our study might be implemented with a larger sample size in future research initiatives.

3.5 Data analysis

Finalizing and analyzing the data is the first and most important phase in the analysis process in order to produce trustworthy and valid results. Since the majority of the data were numerical values that were assigned to fixed positions on a numerical scale, responses to closed-ended questions that asked only yes or no were likewise quantified by converting the non-numeric data into numerical variables. Data was gathered in a data matrix that contained distinct variables in

the columns and survey responses in the chamber rows based on this foundation. Following this agreed format, data can then be assessed using analysis software.

After gathering and cleansing the data, the first step was to look for mistakes. We found a few discrepancies and eliminated them to make sure our data collection was of high quality. All variables were subjected to an error check before we were allowed to investigate each dimension independently. Using this strategy, we discovered that despite the underlying bases are ranked very low overall importance is rated quite high. Consequently, the analysis did not continue to take these factors into account.

4. Data Analysis & Presentation of Results of Findings

The research topics and an explanation of the conceptual model's development method were presented in the first chapter. This chapter outlines the study's empirical results, offers pertinent interpretation for the findings, and draws attention to both the clear distinctions between the operations capability dimensions and the operational capabilities as well as their seeming parallels. This chapter offers insight into all aspects of manufacturing firm characteristics as well as high-cost situations. The last section examines the applicability of these findings to managerial practice and future research areas.

4.1 Evaluation of high-cost environments

We hope that this essay will help readers better comprehend the difficulties faced by high-priced manufacturing companies. According to the empirical data, operations capability is a crucial component of the operations capability framework and must thus be acknowledged. A multi-dimensional approach was employed to better understand how operations capability functions inside a specific environment. We used it in a variety of settings with various budgets. Using this method, we were able to spot patterns and compare various surroundings.

4.1.1 Dimension level

To determine the significance of the capability dimensions across manufacturing firms, dimension level studies were carried out. Industry, product, and process levels make up the dimension levels. All capabilities earned a mean value greater than three at the industry level. The lowest value, nevertheless, is closer to four, suggesting that all competence characteristics are seen as crucial or extremely crucial. Quality is the most significant capacity attribute, followed by delivery, according to the ranking of the mean values (Table 2). When compared to the other competence characteristics, these dimensions are rated substantially higher. Additionally, quality and delivery have a significantly smaller standard deviation as compared to the other dimensions. This reduced spread and hence strong reliability and resilience indicate a lower spread. In general, a relationship between standard deviation and descending ranking can be found.

4.1.2 Operations capability level

This analysis demonstrates that, compared to the other capabilities, the top five operations capabilities (product quality, delivery dependability, process efficiency, flow efficiency, and product sustainability) have a reduced standard deviation in relation to their mean value. Additionally, there is a connection between standard deviation and ranking. These results provide credence to the idea that not all businesses priorities operational capabilities equally. Further investigation may shed light on whether narrowing a company's operational emphasis would enhance its competitive edge..."

4.2 Evaluation of manufacturing firm characteristics

A review of the company's industry classifications, size, client focus, and production strategy are all part of the evaluation of the characteristics of manufacturing firms. Applying the same computation and ranking approach, the operations capability level was examined after the dimension level. In their respective subchapters, each of the four traits is discussed in more detail and compared to the others.

4.2.1 Industry classifications

The statistical classification of economic activities in the European Community served as the foundation for the industry classifications used in this analysis (NACE). Considered are intermediate products, capital goods, durable consumer goods, and non-durable consumer goods. While non-durable consumer items are promptly discarded after one usage, intermediate commodities are partially finished products that are utilized as production inputs. Lastly, the creation of products and services involves the usage of capital goods.

4.2.1.1 Dimension level

Quality is ranked as the highest dimension for each industry classification and capital good, according to the capability analysis at the dimension level. With the exception of durable consumer products, quality exhibits the lowest standard variation across all capabilities for all industrial classifications. For both durable and non-durable consumer goods, the sustainability dimension comes in third, whereas for intermediate and capital goods, it comes in fourth. Cost is placed fourth for durability and fifth for services, while it is ranked second for intermediate and capital products and demonstrates little significance for either intermediate or non-durable consumer items.

All capabilities are equally significant across all industry categories, according to the dimension level, with quality being the most significant dimension throughout all but one industry classification. This means that for all classes of goods, quality is essential for delivering value and satisfying client needs. The second and third most crucial elements are quality, sustainability, and cost, respectively.

4.2.1.2 Operations capability level

The capabilities in the operations capability level received mean values of two or higher. The operations capability product quality rates highest among all industry classifications in terms of the quality dimension. Across all industry classifications, process quality is of utmost importance. However, compared to the other groups, capital goods have a marginally lesser relevance. While the importance of capability cost efficiency is lower for durable and non-durable consumer goods, it is higher for intermediate and capital items. One of the top five operational attributes that consumers use to assess the performance of suppliers across industries is delivery reliability.

5. Conclusions, Implications and Recommendations

5.1 Research questions and purpose

In order to evaluate the most crucial operations capability dimensions as well as operations capabilities for competitive manufacturing in a high-cost environment and how they differ based on manufacturing firm characteristics, this thesis sets out to address two research objectives. The findings are consistent with parts of the body of current research, particularly in areas like market orientation, product complexity, and global reach. Additionally, new factors that are more significant than previously researched ones, such as inventory management efficiency, were discovered, among other things. Because they offer an analysis that can assist managers compare their own skills to those of similar organizations within the same industry or even globally, these results can be used by businesses as benchmarks.

Answering RQ1: What is the most important operations capability dimensions and operations capabilities for competitive manufacturing in a high-cost environment?

All of the operations capability characteristics are deemed vital, according to the regression analysis's findings, even though quality is the most crucial one. In a high-cost world, all operations capabilities are crucial. The productivity of manufacturing enterprises operating in high-cost environments was found to grow with higher levels of all operations skills.

Answering RQ2: How do the most important operations capability dimensions as well as operations capabilities differ based on of manufacturing firm characteristics?

Operations research is expanding in scope and complexity, and organizations must be able to adapt to shifting market conditions. Operations managers need to have a thorough awareness of the various categories, standards, and metrics that constitute operations. This essay focuses on the relative weighting and significance of several operational capability factors. This study's main goal was to determine the key operational capability dimensions and be able to compare them across several classifications, including industrial sector, machinery type, and location of manufacture (i.e., domestic or import). The study also evaluates which of these three classes inside manufacturing enterprises in developed countries is most significant. Based on significant high-level classificatory traits for our sample, we determined four major categories: non-durable consumer goods, intermediate goods, and durable consumer goods (such as cars) (e.g., beverages).

The most crucial operational competencies are determined by the size of the business and its client focus. Quality and delivery are the top two rating criteria for small and medium-sized businesses.

Product quality is the most important factor for businesses who target B2B and diverse customer sources. However, for businesses with a B2C focus, delivery comes in first, followed by product quality.

5.2 Implications

Theoretical implications

This study lends more credence to the idea that operational capabilities play a significant role in explaining manufacturing performance. The market environment and how it affects the significance of the operational capabilities as well as how the significance varies the characteristics of manufacturing firms are taken into account when designing the theoretical implications of the research. First, both the operations capability dimensions and the operations themselves are dynamic and change over time as well as in various market circumstances.

Practical implications

According to our research, the significance of operations capabilities appears to be increasing, particularly as a result of the quick changes and advancements in the international technology-based society. Additionally, manufacturing companies must take into account the various operational capacities when determining their long-term strategic plans. However, it is conceivable for certain manufacturing companies to lack the resources or knowledge necessary to cope with new technologies; as a result, they must be able to use a variety of operations capabilities in order to effectively implement any potential solutions and initiatives.

5.3 Limitations and further research

Although this thesis follows a clear methodology, it is constrained by the following factors. First, due to insufficient data ($n=1$), the energy category as part of the NACE classification was not taken into account. The same holds true for ETO within the category of production strategy ($n=1$). Including these findings would undermine both scientific soundness and generalizability.

A survey was carried out to evaluate the current situation regarding the significance of quality and its implications on organizational success. The results showed that a high standard of quality is important for an organization's performance and efficiency. To investigate the causes of this relevance, more research is advised. Additionally, qualitative information and comparisons with low-cost settings are required.

6. References

- Alsmadi, M., Khan, Z., & McTavish, A. M. (2011). Evaluating competitive advantage priorities of SMEs in Jordan. *International Journal of Networking and Virtual Organisations*, 9(1), 25. <https://doi.org/10.1504/IJNVO.2011.040933>
- Bailey, D., & Proprius, L. de. (2014). Manufacturing reshoring and its limits: The UK automotive case. *Cambridge Journal of Regions, Economy and Society*, 7(3), 379–395. <https://doi.org/10.1093/cjres/rsu019>
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Beltrán-Martín, I., & Roca-Puig, V. (2013). Promoting Employee Flexibility Through HR Practices. *Human Resource Management*, 52(5), 645–674. <https://doi.org/10.1002/hrm.21556>
- Bendoly, E., Rosenzweig, E. D., & Stratman, J. K. (2007). Performance Metric Portfolios: A Framework and Empirical Analysis. *Production and Operations Management*, 16(2), 257–276. <https://doi.org/10.1111/j.1937-5956.2007.tb00179.x>
- Bryman, A., & Bell, E. (2011). *Business research methods* (3rd ed.). Oxford: Oxford University Press.
- Cagliano, R., Acur, N., & Boer, H. (2005). Patterns of change in manufacturing strategy configurations. *International Journal of Operations & Production Management*, 25(7), 701–718. <https://doi.org/10.1108/01443570510605108>
- Camps, J., Oltra, V., Aldás-Manzano, J., Buenaventura-Vera, G., & Torres-Carballo, F. (2016). Individual Performance in Turbulent Environments: The Role of Organizational Learning Capability and Employee Flexibility. *Human Resource Management*, 55(3), 363–383. <https://doi.org/10.1002/hrm.21741>
- Chi, T. (2010). Corporate competitive strategies in a transitional manufacturing industry: An empirical study. *Management Decision*, 48(6), 976–995. <https://doi.org/10.1108/00251741011053497>
- Corbett, L. M. (1996). A comparative study of the operations strategies of globally- and domestically-oriented New Zealand manufacturing firms. *International Journal of Production Research*, 34(10), 2677–2689. <https://doi.org/10.1080/00207549608905052>

- Dangayach, G. S., & Deshmukh, S. G. (2001b). Manufacturing strategy. *International Journal of Operations & Production Management*, 21(7), 884–932.
<https://doi.org/10.1108/01443570110393414>
- Eriksson, D., Hilletofth, P., Ellram, L. M., & Sansone, C. (2018). To offshore or reshore: The battle of data points. *Supply Chain Management Review*, 22(3), 42–46.
- NACE Rev. 2, Eurostat 2008.
- Ferdows, K., & De Meyer, A. (1990). Lasting improvements in manufacturing performance: In search of a new theory. *Journal of Operations Management*, 9(2), 168–184. [https://doi.org/10.1016/0272-6963\(90\)90094-T](https://doi.org/10.1016/0272-6963(90)90094-T)
- Flynn, B. B., Schroeder, R. G., & Flynn, E.J. (1999). World class manufacturing: An investigation of Hayes and Wheelwright's foundation. *Journal of Operations Management*, 17(3), 249–269. [https://doi.org/10.1016/S0272-6963\(98\)00050-3](https://doi.org/10.1016/S0272-6963(98)00050-3)
- Frohlich, M. T., & Dixon, J. R. (2001). A taxonomy of manufacturing strategies revisited. *Journal of Operations Management*, 19(5), 541–558.
[https://doi.org/10.1016/S0272-6963\(01\)00063-8](https://doi.org/10.1016/S0272-6963(01)00063-8)
- Hallgren, M. (2007). Manufacturing strategy, capabilities and performance. Linköping university.
- Hallgren, M., Olhager, J., & Schroeder, R. G. (2011). A hybrid model of competitive capabilities. *International Journal of Operations & Production Management*, 31(5), 511–526. <https://doi.org/10.1108/01443571111126300>
- Hayes, R. H., & Wheelwright, S. C. (1984). *Restoring our competitive edge: Competing through manufacturing* / Robert H. Hayes, Steven C. Wheelwright. New York, Chichester: Wiley.
- Hill, T. (1995). *Manufacturing Strategy*. London: Macmillan Education UK.
- Hilletofth, P., & Sansone, C. (2018). *A framework of important operations capabilities in a high cost environment* (Working Paper). Jönköping University.
- Miller, J. G., & Roth, A. V. (1994). A Taxonomy of Manufacturing Strategies. *Management Science*, 40(3), 285–304. <https://doi.org/10.1287/mnsc.40.3.285>
- Nakane, J. (1986). *Manufacturing Futures Survey in Japan: A Comparative Survey 1983-1986*. Tokyo: System Science Institute.

- Phusavat, K., & Kanchana, R. (2007). Competitive priorities of manufacturing firms in Thailand. *Industrial Management & Data Systems*, 107(7), 979–996.
<https://doi.org/10.1108/02635570710816702>
- Rea, L. M., & Parker, R. A. (2014). *Designing and conducting survey research: A comprehensive guide* (Fourth edition). San Francisco: Jossey-Bass.
- Sansone, C., Hilletofth, P., & Eriksson, D. (2017). Critical operations capabilities for competitive manufacturing: A systematic review. *Industrial Management & Data Systems*, 117(5), 801–837. <https://doi.org/10.1108/IMDS-02-2016-0066>
- Stalk, G., Evans, P., & Shulman, L. (1992). Competing on Capabilities: The New Rules of Corporate Strategy. *Harvard Business Review*, 70(2), 57–69.
- Tate, W. L., Ellram, L. M., Schoenherr, T., & Petersen, K. J. (2014). Global competitive conditions driving the manufacturing location decision. *Business Horizons*, 57(3), 381–390. <https://doi.org/10.1016/j.bushor.2013.12.010>
- Ward, P. T., Bickford, D. J., & Leong, G. K. (1996). Configurations of Manufacturing Strategy, Business Strategy, Environment and Structure. *Journal of Management*, 22(4), 597–626. <https://doi.org/10.1177/014920639602200404>
- Zhang, X., Ye, C., Chen, R., & Wang, Z. (2011). Multi-focused strategy in value co-creation with customers: Examining cumulative development pattern with new capabilities. *International Journal of Production Economics*, 132(1), 122–130.
<https://doi.org/10.1016/j.ijpe.2011.03.019>
- Zhao, X., Sum, C.-C., Qi, Y., Zhang, H., & Lee, T.-S. (2006). A taxonomy of manufacturing strategies in China. *Journal of Operations Management*, 24(5), 621–636. <https://doi.org/10.1016/j.jom.2005.07.003>
- Zhao, X., Yan Yeung, J. H., & Zhou, Q. (2002). Competitive priorities of enterprises in mainland China. *Total Quality Management*, 13(3), 285–300.
<https://doi.org/10.1080/09544120220135174>

7. Appendix

Questionnaire

First Question: kindly select your department

Response options:

- Finance
- Information Technology
- Supply Chain Management
- Sales & Marketing
- Operation
- Quality Management
- Customer Services

Second Question: Talk about your management experience?

Response option:

Third Question: What is your management position?

Response options:

- First-line management
- Middle management
- Top management
- Senior

Fourth Question: How many employees in your company?

Response options:

- SM 50-249 employees
- Big over 250 employees

Fifth Question: Which kind of business do you work?

Response options:

- (B2B)
- (B2C)
- Mixed type