

# Technopreneurship in Small Travel Enterprises (STEs): A Conceptual Framework of Performance Measurement

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## Abstract

There is some research investigating toward e-commerce adoption around the world. However, the research of e-commerce adoption in developing countries and small business are not as much as large companies. For this reason, this study investigates e-commerce adoption in small business and developing country such in Indonesian case and small travel Enterprises (STEs). The research study focuses on electronic travel (e-travel) adoption as a subdivision of electronic commerce (e-commerce) in Padang, West Sumatra Province. The research framework presents measurement indicators including operational and final performance of STEs in adopting e-travel. The research would be undertaken descriptively using purposive sampling technique is used for 5- STEs as the non-adoption e-travel. Thus they would be assisted generating the company's website and be identified the performance measurement for each STE after six month's operations. The performance measurements of e-travel adoption involve operational and final performance. Operational performance is measured by operation activities, daily processing and resources used. Final performance is measured by market share, sales, net profit, growth, Return on Investment (ROI), and extend to global market. The measurement result would give an initial illustration during e-travel adoption by STEs in Indonesia. Further study would be investigated empirically the final performance of e-travel adoption among STEs.

**Keywords:** Technopreneurships, e-commerce, e-travel, small travel enterprises, operational and final performance, Indonesia

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## 1.0 INTRODUCTION

Entrepreneur is identified as a risk-taker person and spends their time, money and reputation for business. However, that condition become an important in starting point to produce the creative innovation. Many researchers have been defined the terms of entrepreneurs which are closely related to innovation as technopreneurship. Venkataraman (2004) stated the term of technopreneurship showing the process of entrepreneurship employing the innovation of technology intensively. The adoption of the internet studied by Chappell and Feindt, 2000; Sadowski et al., 2002 showed that communication requirements of SMEs would be supported by the perceived importance of e-commerce. To reduce cost in entry market and to get more potential customers, SMEs may adopt e-commerce. It depends on the conditional on the availability of the knowledge base and the skills needed to deal with the information and communication technologies (Santarelli and D'Altri, 2002).

The adoption of e-commerce in Indonesia is still underdeveloped. According to Pimchangthong et al. (2003), Raharjo (1999) and Setiyadi (2002), there are many problems in Indonesia which are identified as e-commerce constraints. They are outdated-infrastructures of IT, lack of capital in financial support, inability to communicate with other languages (i.e. English) and low levels of education. However, In Indonesia, the total number of Indonesian internet domains has grown from 1,479 in 1998 to 47,861 in 2010 and domain (TLD)166,023 in 2010 (APJJI, 2010). Furthermore, Indonesia has demonstrated rapid growth of in the number of internet users totalling 55,000,000 with 22.4 % penetration in 2011 and 43,5323,740 Facebook users in March 2012 (Internet Worldstat, 2012). In addition, the number of internet users in Indonesia has the rapidest growth among ASEAN countries

Indonesian SMEs make significant contributions to Indonesian development. The number of small and medium enterprises (SMEs) are 55.53 million unit in 2012 constituting the largest number (99.999%) of businesses which it consists of 9.993% small enterprises and 0.006% medium enterprises (Indonesia Cooperative Department 2013). They are the backbone of Indonesian Economy and are perceived as a rescue valve in the recovery process of the national economy during the post-economic crisis (Berry et al. 2002; Grandon, & Pearson 2003). Indonesian SMEs have contributed a total of 59.08% of Product Domestic Bruto (PDB) in 2012. Therefore, any research into SMEs in Indonesia will be of great assistance to the Indonesian economy.

The advantages of e-commerce and websites of being unconstrained by geographic location, give hope to solving the geographic problems which Indonesian businesses face. Furthermore, SMEs are identified as the backbone of economic growth in Indonesia. Therefore, including SMEs in studies of e-commerce and websites in Indonesia would be beneficial to all stakeholders. Travel agency may choose to compete primarily along this performance indicators.

Travel industry is one of the biggest and fastest growing industries in the world (Kamarulzaman, 2007). In this global era, a travel industry without travel agents is quite unbelievable as it would result in utter chaos and disorder in the industry (Satit, et all. 2012). The travel planners want to get easy and quick information from the travel agent. Therefore, travel agents develop information system through internet by using website. This website will be used by travel planners and internet users to look for some information.

The following sections are organized as follows; presents the theoretical study and then it will be followed by the conceptual framework of the use of e-travel adoption and this article is ended by the conclusion of this study.

## ■2.0 THEORETICAL DEVELOPMENT OF THE STUDY

### 2.1 Performance

Performance measurement is crucial for supporting the e-commerce development, including SME (Garengo et al 2005). Although research on the adoption of e-commerce, in particular the use of the website as a tool to achieve a competitive advantage for the company is no longer be something new in this century, but so little is known about direct effect of e-commerce adoption toward operational performance (Mc Gill et al. 2003). The emergence of internet, especially the presence of website has many benefits for customers in order to minimize their monetary cost and the cost of time spent when visiting the store to compare prices.

Website as a tool of competitive advantage for the SME has given profit through improved for a better relationship between buyer and seller. The utilization of the website support the performance of SME towards the better. This can be seen by the increasing use of Web-site among travel agents, who usually only focus on offline transactions, currently have started switching to rely on online transactions. This increase is driven by owner's belief to earn more profits through the utilization of the website. The short term goal of companies in an attempt to gain profits associated with the company's efforts to get attention for long-term goals. Research has shown that performance could play an important role for SME's goals.

This study presents measurement indicators including operational and final performance of Small Travel Enterprise (STE) in adopting e-travel. Through setting their business performance goals, operating activities may respond to their own strategy. Or they may contribute to the business strategy by developing and exploiting capabilities that allow the business to perform in the areas critical to customers, enter new markets, or exploit new opportunities (Beckman and Rosenfield, 2008).

### 2.2 Operational Performance

Advances technology, especially the use of the website as part of the adoption of the e-travel in some recent years has had a significant impact on operational performance of SME. The internet is rapidly becoming the infrastructure of choice for e-commerce, because it offers business an even easier way to link with other businesses and individuals at a very low cost (Laudon and Laudon, 2002). One of the organizational performance in a short-term impact from an ICT adoption which enhance the business development, increase the productivity, efficiency, and customer satisfaction is operational performance. Operational performance is typically assessed along the dimensions of cost, quality, flexibility and delivery (Vickery et al., 1993; Miller and Roth, 1994; Devaraj et al., 2004; Beckman and Rosenfield, 2008). It can be measured through the operating activity of the company, the daily processes and resources used. Operational performance issues are associated with the technological and physical constraints placed upon the process by its inputs and outputs as well as by the humans and machines involved.

**Table 1** Indicators of operational performance in previous study

Indicators	Key References
Production cost/Lead Time	Beckman and Rosenfield, (2008); Buzzell and Ortmeyer, (1995); Davis et al (2003); Laudon and Laudon, (2002); Frohlich and Westbrook, 2001; Ranganathan et al. (2004)
Product Returns and Defects	Devaraj et al. (2007); Frohlich and Westbrook, (2001); Heizer and Render, (2004); Poirier and Quinn, (2003); Rosenzweig et al, (2003)
Flexibility	Chang et al. (2003); Davis et al. (2003); Kotha and Orne, (1989); Rosenzweig et al. (2003).
Delivery	Davis et al. (2003). ; Finch, 2008; Pujani and Jun-Xu (2006); Spring and Boaden (1997); Stalk (1988)

There are some indicators on previous research that are related to operational performance of e-travel adoption including percent returns (Frohlich and Westbrook, 2001; Poirier and Quinn, 2003; Rosenzweig et al, 2003), percent defects (Frohlich and Westbrook, 2001 and Rosenzweig et al, 2003), delivery speed (Buzzell and Ortmeyer, 1995; Chen and Paulraj, 2004; Frohlich and Westbrook, 2001; Frohlich and Westbrook, 2002), delivery reliability (Buzzell and Ortmeyer, 1995; Chen and Paulraj, 2004; Poirier and Quinn, 2003; Rosenzweig et al, 2003), production costs (Chen and Paulraj, 2004; Frohlich and Westbrook, 2001; Frohlich and Westbrook, 2002; Poirier and Quinn, 2003; Rosenzweig et al, 2003; Zhu and Kraemer, 2002), production lead time (Buzzell and Ortmeyer, 1995; Frohlich and Westbrook, 2001; Ranganathan et al. 2004; Rosenzweig et al, 2003), Inventory turns (Frohlich and Westbrook, 2001; Zhu and Kraemer, 2002; Ranganathan et al. 2004), and flexibility (Chen and Paulraj, 2004; Rosenzweig et al, 2003).

#### 2.2.1 Production Costs and Production Lead Time

Cost effectiveness, as well as the efficiency of time, plays an important role in managing total costs to enhance customer and shareholder value and drive competitive advantage in the marketplace (Rasli et al. 2014). Davis et al (2003) suggest that there are four primary costs that are relevant to production planning. These are: basic production costs (including fixed and variable costs incurred in producing a given product type in a given time period, i.e.: material costs, direct and indirect labor costs, and regular as well as overtime compensation), costs associated with changes in the production rate (involved in hiring, training and laying off personal), inventory holding costs (including

insurance and taxes), backlog or stock out costs (including loss of customer goodwill and loss of sales revenues resulting from cancelled orders because the product is not available or other reasons).

Companies can use internet technology to radically reduce their transaction costs, which include the costs of searching for buyers and seller, collecting information on products, negotiating terms, writing and enforcing contracts, and arranging transportation (Laudon and Laudon, 2002). The less time it takes to change over from one service to another, the easier it is for the facility to quickly generate different services, which finally may allow company to reduce their production cost (Beckman and Rosenfield, 2008).

### **2.2.2 Product Returns and Defects**

Percent returns refer to percent product returned by the customer, while percent defects defined as the number of errors during production (Devaraj et al. 2007). Companies must decide where they want to position their operational performance in order to decrease the number of percent returns and defects from customer. Operations directly control the quality of the product or service. This is often thought as conformance to specifications and fitness for use task as operations strives to have all products and services delivered meet the requirements set forth by develops on behalf of the customers (Heizer and Render, 2004). The goal of process quality is to produce error-free products. Operations can influence the design of travel service so that it can be produced or delivered with higher quality.

### **2.2.3 Flexibility**

Currently, the competitive advantage for many companies lies in their ability to produce customized products to meet individual customer needs. Service operations like travel agent must have the ability to adjust to meet the demand from customers. Manufacturing flexibility has been discussed through several practical approaches. Chang et al. (2003) has investigated the practice of manufacturing flexibility in small and medium sized firms in Taiwan. It indicated that the alignment of manufacturing flexibility and business strategy is important to business performance.

Flexibility is the measurement of how readily the company's transformation process can adjust to meet the ever-changing demands of its customers (Davis et al. 2003). Thus, it is important for companies to adapt and respond in a timely manner to changing customer requirements and market conditions with ease and effectiveness. There are three dimensions of flexibility, these are: how quickly a process can convert from producing one product or family of product(s) to another, ability to react to changes in volume, and ability to produce more than one product simultaneously. The occurrence of changes in volume, product mix and schedule has an impact on the importance of process flexibility in the competitive environment (Rosenzweig et al. 2003). By developing flexible operations, levels of functional interdependence will be higher (Kotha and Orne).

### **2.2.4 Delivery Speed and Delivery Reliability**

Dependability of delivery has been increasing in importance for both consumers and business customers (Finch, 2008). Premium price will be achieved if a company has an ability to provide consistent products and fast delivery. Spring and Boaden (1997) have attempted to define delivery speed as how companies can react quickly to customer orders to deliver fast. Stalk (1988) has demonstrated that final performance which consists of benefits including profits and market share are directly link to the speed with which a company can deliver its products relative to its competition.

In addition to fast delivery, the reliability of delivery in forms of maintaining in predictable and repeatable is also important (Davis et al. 2003). Thus, travel agent should deliver their products to customers with minimum variance in delivery times. The delivery reliability of travel agent is measured by the predictability of service given based on customer's expectation schedule. The higher the variance of schedule, the lower the delivery reliability for customers.

## **2.3 Final Performance**

Studying the operational performance reveals the important effect they have on operational effectiveness and the actual benefits of that organization. The results of an earlier study of website success model by Pujani and Jun-Xu (2006) reported the impact of the use on organizational benefits is consistent with previous research (i.e., Lii et al. 2004; Pflughoeft et al. 2003; Teo and Choo, 2001; Teo and Pian, 2004). It illustrates that Indonesian SMEs believe by owning and using a commercial website, numerous organizational benefits (increased sales and market share, return on investment, reduced costs, improved customer services, enhanced customer relations, among many others) will be realized, which highlights the importance of adopting e-commerce websites.

Briefly, rapid growth of e-commerce website promises large potential performances such as operational, financial and strategic performance. Financial metrics was measured with indicators which developed by Gupta and Govindarajan (1984) through two criterias: Net profit and Return on Investment (ROI). Paul and Anantharaman (2003) also reveal the significant relationship between financial performance toward final performance. In recent years, it has become increasingly apparent that firms must be managed with more than just financial metrics (Kaplan and Norton, 2005). Lomerson, McGrath and Schwager (2004) agree that e-commerce has potential benefits for SMEs enterprises in two main categories: financial and strategic performance. Since marketing performance is a subset of the overall final performance of a firm, there should be marketing performance indicators to measure in final firm performance (Lii et al. 2004). Moreover, strategic performance was measured by SMEs performance to extend to the global market (Pflughoeft et al. 2003).

**Table 2** Indicators of final performance in previous study

Dimension	Indicators	Key References
Financial	Growth	DeLone & McLean (2004); Teo & Choo (2000); Lii, Lim & Tseng (2004); Pujani & Jun-Xu (2006); O'Keefe, O'Connor & Kung (1998).
	Net Profit	Teo & Choo (2000); Alam & Noor (2009); Liang et al., 2010; Rivard, Raymond, & Verreault (2006); Lee et al. (2011); DeLone & McLean (2004); Bayo-Moriones (2013); Jacks et al. (2011)
	Return On Investment (ROI)	Liang et al., (2010); Paul & Anantharaman (2003); Kaefer & Bendoly (2004).
Marketing	Market Share	Alam & Noor (2009); Lee et al. (2011); Teo & Choo (2000); Bayo-Moriones (2013)
	Sales	DeLone & Mc Lean (2004); Liang et al., (2010); Karayanni & Baltas (2003); Pujani & Jun- Xu (2006); O'Keefe, O'Connor & Kung (1998); Pflughoeft et al. (2003).
Strategic	Extend to Global Market	Pflughoeft et al. (2003); Teo & Choo (2000); DeLone & McLean 2004; Qureshi et al. (2014)

Pflughoeft et al. (2003) suggest that effective use of the website may lead to greater market access in terms of the number of actual and potential customers served. Access to a greater number of customers may have benefits in turn lead to higher sales, market share, and profitability levels. Kotler (2006) and Laudon & Laudon (2002) proposed that the primary activity of e-commerce is to take benefit in addition to build a positive relationship between marketer and customer. Berkowitz et al. (2000) stated that main objective of e-commerce is to increase sales directly and rapidly through an e-commerce website.

### 2.3.1 Growth, Sales and Market Share

E-commerce through an advance of ICT have a great impact for organizational innovativeness and assist them to raise organizational growth (Obijiofor et al. 2005). Growth, sales and market share became important indicators that need to be taken into consideration for assessing the performance of marketing as one of the company's final performance dimensions (Teo and Pian, 2004). In addition to estimating the total potential and potential areas of marketing, company needs to know the actual sales industry in the market. Hence, they need to identify competitors and predict sales.

Rego et al. (2013) stated that the performance of such marketing growth, sales and market share have an effect on customer satisfaction. Any company can evaluate the performance of its marketing to the industry. If company sales tend to increase 5% a year, but industrial sales increased by 10%, then the company will be deprived of its position in the industry. Another way to estimate the sales is to get reports from the marketing research audit sales and sales of the brand.

Companies can get information and compare their performance with the industry as a whole or some competitors to know whether the company's market share increased or decreased. Because, distributors would not supply information about the products they sell. Marketers for the type of business to business refuse to share you more knowledge about their market share. Kotler and Keller (2009) identify the sales and market share as a part of the company's growth. Fereh and Towell (1997) study that businesses expect to develop new market and increase their current market share using the internet.

### 2.3.2 Net Profit and Return on Investment (ROI)

Better company performance is expected to reach great profitability through internet intelligence. One of the primary goals of B2B e-commerce technology implementations is to make inter-organizational communication more efficient and cost effective (Teo & Choo, 2000). Smaller firms are possible to take advantage of cost effectiveness on streamlining the supply chain to maximize the competitive gain from ICT.

Recent research has already suggested that firms capable of catering to a large number of diverse buyers will be driven to adopt a larger variety of communication technologies than those dealing with smaller or less diverse sets of buyers. With most investments, an individual or business spends money today with the expectation of earning even more money in the future. The concept of return provides investors with a convenient way to express the financial performance of an investment (Brigham and Ehrhardt, 2005). In pursuing a measure for transactional efficiency, we turn to a recent study conducted by Mirani and Lederer (1998) in which a literature survey of major contributions to IS/IT benefits theory identified potential benefits of IS projects. Kaefer and Bendoly (2004) suggest that information technologies may be sufficient to encourage business efficiency in increased the return on financial assets.

### 2.3.3 Extend to Global Market

Globalization is one of the defining trends of our times and affects operations strategy in firms. There is no question that we are in an era of expanding global activity. The presence of more developed market globally suggests that there are large benefits of scope for firms who sell to global market (Beckman and Rosenfield, 2008). Trends in trade and investment, and the advent of lower-scale production and delivery technologies, suggest that the most effective way to serve the global market is often with regional approach that provides presence in a number of marketplaces. This reduces costs, provide better customer feedback and minimizes risk resulting from exchange-rate fluctuations and other political factors (Ferdows, 1997; Mody, Suri, & Sanders, 1992; Rosenfield, 1996).

Globalization become an urgent reason for SMEs enterprises to adopt the utilization of e-commerce website in order to gain a competitive advantage in the present competitive global situation (Kapurubandara and Lawson, 2006). The growth of such large markets has led to the

emergence of powerful global competitors, many of whom emphasize production for export markets (Arnold and Quelch, 1998; Chakravarty, Ferdows, & Singhal, 1997; Beckman and Rosenfield, 2008). MacCormack et al. (1994) also describes competing in global markets requires first understanding those markets and then engaging in rapid innovation of products and services to meet the needs of the specific markets.

### 3.0 CONCEPTUAL FRAMEWORK

In this section, we proposed a framework which developed by three constructs on the role of e-travel adoption performance. An extensive survey according to previous research has been performed to build these constructs. Three areas pertinent for this research are: actual use in adopting e-travel, operational performance and final performance.

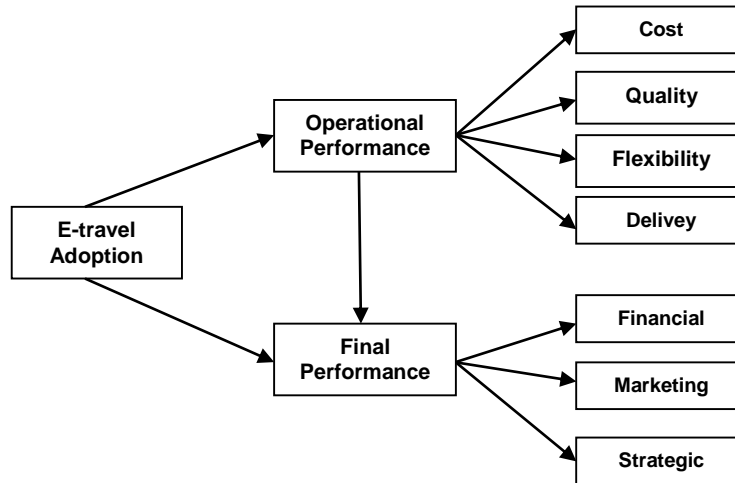


Figure 1 Theoretical Framework

Specifically, this study developed a framework based on the literature to empirically test in the further from e-travel actual use to final performance, mediated by operational performance. This framework reflects that performance of e-travel adoption vary depending on the extent to which the use of the web and operational performance measurements. Performance measurement requires establishing the metrics that will be used to perform periodic quantitative assessment of a process and the procedures that will be used to carry out the measurement and interpret the data in the light of previous or comparable assessments (Beckman and Rosenfield, 2008). A significant body of prior empirical research indicates that operational performance measurements such as quality, delivery, flexibility, and/or cost contribute positively to business performance, either acting alone or in concert with other capabilities (i.e. Bozarth and Edwards, 1997; Cleveland et al., 1989; Flynn et al., 1999; Vickery et al., 1993, 1994, 1997; Ward et al., 1994).

### 4.0 CONCLUSION

This paper is an initial study and theoretical framework to determine the indicator of e-travel adoption. This paper generates the conceptual measurement of operational and final performance during e-travel adoption. There are numerous operational and final performances in adopting e-travel among STEs in Indonesia as a developing country. The operational performance includes production cost, product defects, flexibility and delivery speeds. In the meantime, in final performance during e-travel adoption, includes Financial, marketing and strategic. The future research, empirical study to test the performance measurement would be conducted.

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### References

- Alam, S. S., & Noor, M. K. M. (2009). ICT Adoption in Small and Medium Enterprises: An Empirical Evidence of Service Sectors in Malaysia. *International Journal of Business and Management*, 4(2), 112–125.
- Arnold, D. J and Quelch, J. A. (1998). New Strategies in Emerging Markets. *MIT Sloan Management Review*, 40(1), 7–20.
- Bayo-Moriones, A. (2013). Perceived Performance Effects of ICT in Manufacturing SMEs. *Industrial Management & Data Systems*, 113(1), 117–135.
- Beckman, S. L, and Rosenfield, D. B. (2008). *Operations Strategy: Competing in the 21st Century*. McGraw-Hill. New York.
- Berkowitz, E. N, Kerin, R. A, Hartley, S. W, Rudelius, W. (2000). *Marketing*. Irwin: McGraw Hill.
- Bozarth, C., Edwards, S., (1997). The Impact of Market Requirements Focus and Manufacturing Characteristics Focus on Plant Performance. *Journal of Operations Management*, 15(3), 161–180.
- Brigham, E. F., and Ehrhardt, M. C. (2005). *Financial Management: Theory and Practice 11th edition*. Cengage Learning: South-Western.
- Buzzell, R. D., and Ortmeyer, G. (1995). Channel Partnerships Streamlining Distribution. *Sloan Management Review*, 36(3), 85–96.
- Chakravarty, A., Ferdows, K., and Singhal, K. (1997). Global Operations and Technology Management. *Productions and Operations Management*, 6(2), 99–101.



- Chen, I., and Paulraj, A. (2004). Towards A Theory of Supply Chain Management: The Constructs and Measurements. *Journal of Operations Management*, 22(2), 119–150.
- Cleveland, G., Schroeder, R.G., Anderson, J.C. (1989). A Theory of Production Competence. *Decision Sciences*, 20(4), 655–668.
- Davis, M. M., Aquilano, N. J., and Chase, R. B. (2003). *Fundamentals of Operations Management*. Mc-Graw Hill. New York.
- Delone, W. H., and Mclean, E. R. (2004). Measuring e-Commerce Success: Applying the DeLone & McLean Information Systems Success Model. *International Journal of Electronic Commerce*, 9(1), 31–47.
- Devaraj, S., Hollingworth, D., and Schroeder, R. (2004). Generic Manufacturing Strategies and Plant Performance. *Journal of Operations Management*, 22(3), 313–333.
- Devaraj, S., Lee, K., and Jerry, C.W. (2007). Impact of e-Business Technologies on Operational Performance: The Role of Production Information Integration in the Supply Chain. *Journal of Operations Management*, 25, 1199–1216.
- Ferdows, K. Making the Most of Foreign Factories. *Harvard Business Review*, 75 (2), 73–88.
- Fereh, A., and Towell, E. (1997). *Business Use of Internet, Internet Research: Electronic Networking Application and Policy*.
- Flynn, B., Schroeder, R. G., Flynn, J., (1999). World Class Manufacturing: An Investigation of Hayes and Wheelwright's Foundation. *Journal of Operations Management*, 17(3), 249–269.
- Frohlich, M. T., and Westbrook, R. (2001). Arcs of Integration: An International Study of Supply Chain Strategies. *Journal of Operations Management*, 19(2), 185–200.
- Frohlich, M. T., and Westbrook, R. (2002). Demand Chain Management in Manufacturing and Services: Web-based Integration, Drivers and Performance. *Journal of Operations Management*, 20(4), 729–745.
- Garengo, P., Biazzo, S., and Bititci, U.S. (2005). Performance Measurement Systems in SMEs: A Review for a Research Agenda. *International Journal of Management Reviews*, 7(1), 25–47.
- Gupta, A. K., and Govindarajan, V. (1984). Business Unit Strategy, Managerial Characteristics, and Business Unit Effectiveness at Strategy Implementation. *Academy of Management Journal*, 27(1), 25–41.
- Heizer, J., and Render, B. (2004). *Operations Management*. Prentice Hall. New York.
- Jacks, T., Palvia, P., Schilhavy, R., & Wang, L. (2011). A framework for the impact of IT on organizational performance. *Business Process Management Journal*, 17(5), 846–870.
- Kaerfer, F. & Bendoly, E. (2004). Measuring the Impact of Organizational Constraints on the Success of Business-to-Business E-Commerce Efforts: A Transactional Focus. *Information & Management*, 41, 529–541.
- Kamarulzaman, Yuniza. (2007). Adoption of travel e-shopping in the UK. *International Journal of Retail & Distribution Management*, 35(9), 703–719.
- Kaplan, R.S., and Norton, D. P. (2005). Creating the Office of Strategy Management. *Harvard Business Review*, 83(10), 72–80.
- Kapurubandara, M., & Lawson, R. (2006). *Barriers to Adopting ICT and e-commerce with SMEs in developing countries - an Exploratory study in Sri Lanka*. University of Western Sydney. Australia.
- Karayanni, D., & Baltas, G. (2003). Web Site Characteristics and Business Performance: Some Evidence from International Business-to-Business Organizations. *Marketing Intelligence & Planning*, 21(2), 105–114.
- Kotha, S., Orne, D. (1989). Generic Manufacturing Strategies: A Conceptual Synthesis. *Strategic Management Journal*, 10(3), 211–231.
- Kotler, P., and Armstrong, G. (2006). *Principles of Marketing*. Pearson Education LTD.
- Kotler, P., and Keller, K. L. (2009). *Marketing Management 13th edition*. Prentice Hall Inc. NJ: USA.
- Laudon, K. C., and Laudon, J. P. (2002). *Management Information Systems: Managing the Digital Firm*. 7th edition. Prentice Hall Inc. NJ: USA.
- Lee, Y.C., Chu, P.Y., & Tseng, H.L. (2011). Corporate Performance of ICT-enabled Business Process Re-Engineering. *Industrial Management & Data Systems*, 111(5), 735–754.
- Liang, T. P., You, J.J., & Liu, C.C. (2010). A Resource-based Perspective on Information Technology and Firm Performance: A Meta Analysis. *Industrial Management & Data Systems*, 110 (8), 1138–1158.
- Lii, Y.S., Lim, H., and Tseng, L. (2004). The Effects of Web Operational Factors on Marketing Performance. *Journal of American Academy of Business*, 5(1/2), 486–494.
- Lomerson, W. L.; McGrath, L. C.; Schwager, P. H. (2004). An Examination of the Benefits of E-Business to Small and Medium Size Businesses. *Annual Conference of the Southern Association for Information Systems*, 296–303. Savannah, Georgia, USA.
- MacCormack, A. D., Newman, L. J., and Rosenfield, D. B. (1994). The New Dynamics of Global Manufacturing Site Location. *Sloan Management Review*, 35(4), 69–80.
- Mc Gill, T., Hobbs, V., and Klobas, J.(2003). User Developed Applications and Information Systems Success: A Test of Delone and Mc Lean's Model. *Information Resources Management Journal*, 16(1), 24–25.
- Miller, J.G., and Roth, A.V. (1994). A Taxonomy of Manufacturing Strategy. *Management Science*, 40(3), 285–304.
- Mirani, R., and Lederer, A. L. (1998). An instrument for assessing the organizational benefits of IS projects. *Decision Sciences*, 29(4), 803–838.
- Mody, A., Suri, R., and Sanders, T. (1992). Keeping Pace with Change, Organizational and Technological Imperatives. *World Development*, 20, 1797–1816.
- O'Keefe, O'Connor, & Kung. (1998). Early adopters of the Web as a retail medium: small company winners and losers. *European Journal of Marketing*, 32(7/8), 629.
- Obijiofor, L., Inayatullah, S., & Stevenson, T. (2005). *Impact Of New Information And Communication Technologies (Icts) On The Socio-Economic And Educational Development Of Africa And The Asia-Pacific Region*.
- Paul, A. K., & Anantharaman, R. N. (2003). Impact of people management practices on organizational performance: analysis of a causal model. *International Journal of Human Resource Management*, 14(7), 1246–1266.
- Pflughoeft, K. A., Ramamurthy, Soofi, E.S., Ardekani, M.Y., and Zahedi, F. (2003). Multiple Conceptualizations of Small Business Web Use and Benefits. *Decision Science*, 34(3), 467–512.
- Poirier, C.C., and Quinn, F.J. (2003). A Survey of Supply Chain Progress. *Supply Chain Management Review*, 7(5), 40–47.
- Pujani, V., and Jun-Xu. (2006). Testing a Model Webiste Success: A Study of Indonesian SMEs. *Proceedings of the 7th International We-B (Working for E-Business) Conference*, 167–175.
- Qureshi, M. I., Bhatti, M. N., Rasli, A. M., Yasir, M., & Zaman, K. (2014). The Delphi Method for Internationalization of Higher Education in Pakistan: Integrating Theory of Constraints and Quality Function Deployment. *Mediterranean. Journal of Social Sciences*, 5(20), 2702.
- Qureshi, M. I., Janjua, S. Y., Zaman, K., Lodhi, M. S., & Tariq, Y. B. (2014). Internationalization of higher education institutions: implementation of DMAIC cycle. *Scientometrics*, 98(3), 2295–2310.
- Qureshi, M. I., Khan, A., & Zaman, K. (2012). Structural investigation of service quality in conventional and Islamic banking in Pakistan. *Industrial Engineering Letters*, 2(2), 11–17.
- Ranganathan, C., Dhaliwal, J. S., and Teo, T. S. H. (2004). Assimilation and Diffusion of Web Technologies in Supply-Chain Management: An Examination of Key Drivers and Performance Impacts. *International Journal of Electronic Commerce*, 9 (1), 127–161.
- Rasli, A., Norhalim, N., Tan, O. K. and Nik Mustaffa, N. Z. (2014). The interplay of value creation and managerial competencies: Evidence from small technology-based firms in Malaysia. *Recent Trends in Social and Behaviour Sciences. Proceedings of the 2nd International Congress on Interdisciplinary Behavior and Social Sciences 2013(ICIBSoS 2013)*, 567–571. Published by CRC/Balkema Taylor and Francis.
- Rivard, S., Raymond, L., & Verreault, D. 2006. Resource-based View and Competitive Strategy: An Integrated Model of the Contribution of Information Technology to Firm Performance. *The Journal of Strategic Information Systems*, 15(1), 29–50.
- Rosenfield, D. B. Global and Variable Cost of Manufacturing Systems. *European Journal of Operational Research*, 95, 325–343.
- Rosenzweig, E. D., Roth, A. V., and Dean, J. W. (2003). The Influence of An Integration Strategy on Competitive Capabilities and Business Performance: An Exploratory Study of Consumer Products Manufacturers. *Journal of Operations Management*, 21(4), 437–456.
- Satit, R. P. et al. (2012). The relationship between marketing mix and customer decision-making over travel agents: An empirical study. *International Journal of Academic Research in Business and Social Sciences*, 2(6), 522–530.

- Spring, M., and Boaden., R. (1997). One More Time, How do You Win Orders: A Critical Reappraisal of Hill's Manufacturing Strategy Framework. *International Journal of Operations and Production Management*, 17 (4).
- Stalk, George. (1988). Time-The Next Source of Competitive Advantage. *Harvard Business Review*, 66(4), 41–51.
- Teo, T., and Choo, W. (2000). Assessing the Impact of Using the Internet for Competitive Intelligence. *Information & Management*, 39, 67–83.
- Teo, T., and Pian. (2004). A Model for Web Adoption. *Information & Management*, 41, 457–468.
- Vickery, S.K., Droge, C., Markland, R.E. (1993). Production Competence and Business Strategy: Do They Affect Business Performance? *Decision Sciences*, 24(2), 435–455.
- Wacker, J. (1996). A Theoretical Model of Manufacturing Lead Times and Their Relationship to a Manufacturing Goal Hierarchy. *Decision Sciences*, 27 (3), 483–513.
- Ward, P. T., Leong, G.K., Boyer, K.K. (1994). Manufacturing Proactiveness and Performance. *Decision Sciences*, 25(3), 337–358.
- Zhu, K., and Kraemer, K. L. (2002). E-commerce Metrics for Net-enhanced Organizations: Assessing the Value of E-commerce to Firm performance in the Manufacturing Sector. *Information Systems Research*, 13(3), 275–295.