

DETERMINANTS OF ORGANIZATIONAL AGILITY AND ITS IMPACT ON BUSINESS PERFORMANCE: A STUDY OF SMALL AND MEDIUM ENTERPRISES IN UNITED ARAB EMIRATES

By Babeet Gupta

Associate professor, City University Ajman, United Arab Emirates

Orcid ID - 0000-0002-8668-0603

ABSTRACT

With the Business environment in a constant flux, it is essential to change performance benchmarks quickly and cascade those changes down through the organization so that the company can continue to survive through these constant changes. Therefore, Organisational agility is important to deliver on quality goals. This study will seek ways to understand various determinants of organizational agility and how organizational agility impacts the business performance. A quantitative approach using the survey research design was employed. A structured questionnaire was administered to 65 randomly selected managers of SMEs in United Arab Emirates (UAE). The structural equation modelling procedure was used to test the hypotheses developed for the purpose of the study. This was conducted using the SmartPLS. Hypotheses tests indicated that continuous improvement, flexibility, innovation, and responding speed are the business practices that had a significant positive influence on organisational agility. Also, organisational agility in turn had a significant positive influence on the business performance.

Keywords: Organisational agility; Innovation; Organisational learning; Business performance.

ORGANISATIONAL AGILITY

A firm is able to create value by a consistent modification of its decisions which is also done to take into account the developments which are happening in the external environment. This conceptualizes Organisational agility (OA) (Winby and Worley, 2014). Through OA, an organization is flexible enough to respond to the changes happening in the market place, is able to create new opportunities for its businesses and can be committed in a long term towards the achievement of its strategic objectives (Doz & Kosonen, 2010). The concept of agile organization was first proposed by Peter Draker which was subsequently used (Purvis et al., 2014). The understanding of agility in the context of an organization is not only limited to its ability to make fast and effective decisions by taking into consideration the demand conditions in the present and future context, but also to be able to construct active market even in the presence of great competitive forces (Asif Hasan et al., 2012). The principal goal of OA is to integrate the firm's different strategic objectives, such as Responsiveness, excellence, flexibility, operational commitment, innovation and adaptability can be the different strategic objectives of a firm which OA can attempt to integrate thereby enabling an organization to take advantage of the various available opportunities (Di Minin, Frattini, & Bianchi, 2014). It is important for the firms to repeatedly execute the new ideas since with the new business environment innovation and agility are the important dimensions (Alvesson & Sandberg, 2011).

A study in the area of the financial services industry concluded that for OA initiatives to be effective, leadership and management should be considered more important than technology and structure (Haller, 2009).

Nyambandi (2016) studied factors that had influence on the implementation of business processes and agility at an educational institution. Some of the major factors that influenced agility included the resource availability, the ability to collaborate, the ability to accept change as well as updating the curriculum. Mathe (2017) studied the organisational ambidexterity and its impact on business transformation and OA. It was concluded that in responding to the ever changing market conditions, OA and organisational ambidexterity are useful tools.

Yousef et al. (2015) studied the organizations related to oil, gas, and petrochemical industry. They have discussed the factors that have impact on the agility of supply chain and the related level of agility developing.

Using Analytical Hierarchy Process (AHP) technique, Saleeshya (2014) have also studied the agility of supply chain. Sangari et al. (2015) attempted to study the factors that are critical for the achievement of OA. They developed a theoretical framework and tried to identify and rank the basic factors that affect the achievement of OA.

However, the studies on OA that are linked to its impact on the performance of vital businesses have been missing. Therefore, this study aims to fill this gap.

Table1: Factors affecting organization agility

Factor	Reference
Top Managers' Vision	Sanjari <i>et al.</i> (2015); Saleeshya (2014);Ahn <i>et al.</i> (2012);Saleeshya <i>et al.</i> (2012); Haller (2009)
Human Resource	Sanjari <i>et al.</i> (2015); Yusuf <i>et al.</i> (2014); Hasan <i>et al.</i> (2012); Saleeshya (2014);
Flexibility	Yusuf <i>et al.</i> (2014); Lin <i>et al.</i> (2006); Mathe (2017)
Responding Speed	Hasan <i>et al.</i> (2012); Yusuf <i>et al.</i> (2014); Salajeghe <i>et al.</i> (2011); Purvis <i>et al.</i> (2014)
Innovation and Learning	Sanjari <i>et al.</i> (2015); Yusuf <i>et al.</i> (2014); Saleeshya <i>et al.</i> (2012); Di Minin, Frattini, & Bianchi (2014)
Continuous Improvement	Yusuf <i>et al.</i> (2014); Malekian and Fekri (2013);
Integration of Strategies	Sanjari <i>et al.</i> (2015); Malekian and Fekri (2013); Saleeshya <i>et al.</i> (2012)
Recognizing Customer's Requirements	Saleeshya <i>et al.</i> (2012);Sayyadi and Sanjari <i>et al.</i> (2015)
Customers' Satisfaction	Yusuf <i>et al.</i> (2014); Ngai <i>et al.</i> (2011);

Technological Innovations	Purvis <i>et al.</i> (2014); Saleeshya <i>et al.</i> (2012); Di Minin, Frattini, & Bianchi (2014)
---------------------------	---

BUSINESS PERFORMANCE

(Sosiawani, Ramli, Mustafa, & Yussof, 2015) defined business performance in terms of the extent to which an organization effects its goals and objectives. One of the parameter for measuring business performance can be taken as the tasks accomplished by the organization employees in relation to the predetermined targets within a specified period of time (Ledwith & O'Dwyer, 2014; Yıldız, 2010). The quality of these completed tasks can also be taken as a parameter of business performance. Both subjective and objective scales can be used for the purpose of measuring business performance (Darwish & Singh, 2013). Market share, sales, customer satisfaction, employee satisfaction and profitability can be important indicators of subjective business performance. Return on earnings (ROE) and return on assets (ROA) are the most commonly used objective business performance metrics (Yıldız & Karakaş, 2012). Numerous frameworks have been developed in the various research studies but there is no single universally accepted method to measure business performance. A study by Vermaak, Kirsten and Wolmarans (2015) found that accountants depend more on financial than the highly acclaimed Balanced Scorecard when measuring performance in the SMEs. In order to determine the business performance some studies have also applied the subjective performance (Dubihlela & Sandada, 2014; Epoh & Mafini, 2018; Loury-Okoumba & Mafini, 2018).

CONCEPTUAL FRAMEWORK AND THE FORMULATION OF HYPOTHESES

The Figure 1 presents the conceptual framework. The study identified the four business best practices, which are continuous improvement, flexibility, innovation, and responding speed as the predictor variables. OA is considered to be the mediating variable. The identified four business best practices influence the OA. The framework further considers that OA further influences the business performance (outcome variable).

H1: There is a positive relationship between Continuous improvement and OA

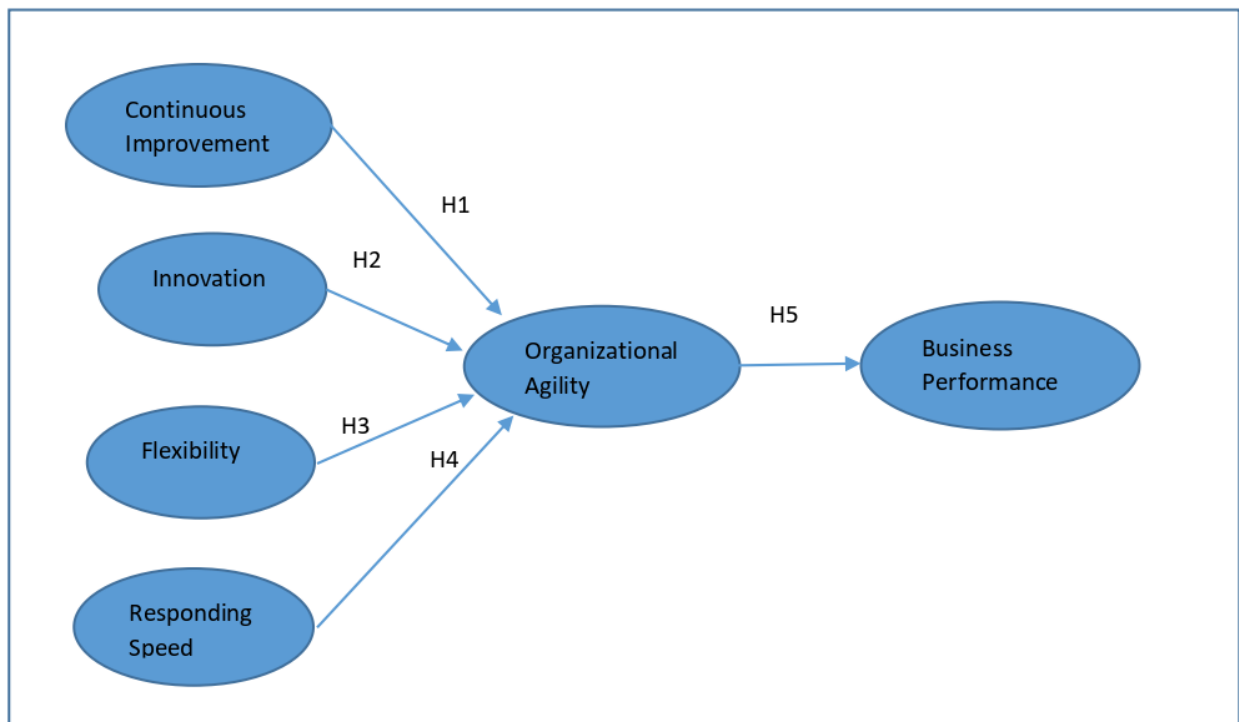
H2: There is a positive relationship between Innovation and OA

H3: There is a positive relationship between Flexibility and OA

H4: There is a positive relationship between Responding speed and OA

H5: There is a positive relationship between OA and business performance

Figure1: Conceptual framework



DATA COLLECTION

Previous studies done in this area have developed some measurement instruments. These measurement instruments were adapted for this study. Responding speed was measured using a 5-item scale (Hasan et al. (2012); Yusuf et al. (2014); Salajeghe et al. (2011); Purvis et al. (2014)). Likewise, Continuous improvement is determined through leadership, employee engagement, culture, employee behavior (Yusuf et al. (2014); Malekian and Fekri (2013)) and was measured on a 5-item Likert scale. Organizational flexibility is measured on a 5-item Likert scale (Yusuf et al. (2014); Lin et al. (2006); Mathe (2017)). OA was measured using a 5-item scale. The constructs used for the purpose of the study was previously validated by Goodman, Fichman, Lerch and Snyder (1995), Anderson and Narus (2003).

Business performance was measured using 5-item scale previously validated by Avlontis and Gounaris (1997), Narver and Slater (1990) as well as Santos and Brito (2012).

Individual factors affecting idea generation and hence Innovation are directly related to creativity. Previous studies point to strength, openness, and supportiveness in the relationship between supervisors and employees as necessary for a creative environment (Amabile 1979; Kimberly 1981; Kimberly and Evanisko 1981). Amabile (1988) identified components that affect creativity in organizations and in turn the innovation.

Response options for the OA, flexibility, continuous improvement, innovation and responding speed were presented on a 5-point Likert-type scale. The responses were measured on 1 = strongly disagree to 5 = strongly agree, to express the degree of agreement. For the business performance scale, response options were measured on a Likert scale that varied from 1 = much worse than the industry average to 5 = much better than the industry average.

STATISTICAL ANALYSES

The data collected from the administered questionnaires was analysed using the Inferential statistics. The demographic details in terms of the size of the firm, age of the firm were captured in the Descriptive statistics of the participating SMEs. Structural equation modelling (SEM) approach, which involved the path analysis techniques was used for the purpose of

inferential statistics. The Statistical application package SmartPLS 4 was employed in the data analysis.

The reliability of the measurement scales was assessed by using Cronbach's alpha test and composite reliability (CR) test (Table 2). Cronbach's alpha and CR coefficients were higher than the lowest cut-off value of 0.7 (Hulland, 1999). Hence, the internal consistency reliability of the measurement scales used in this study was considered to be adequate.

Convergent validity was tested using the Average Variance Extracted (AVE). The values for AVE were well above the recommended minimum threshold of 0.5 (Fraering & Minor, 2006). as shown in Table 2.

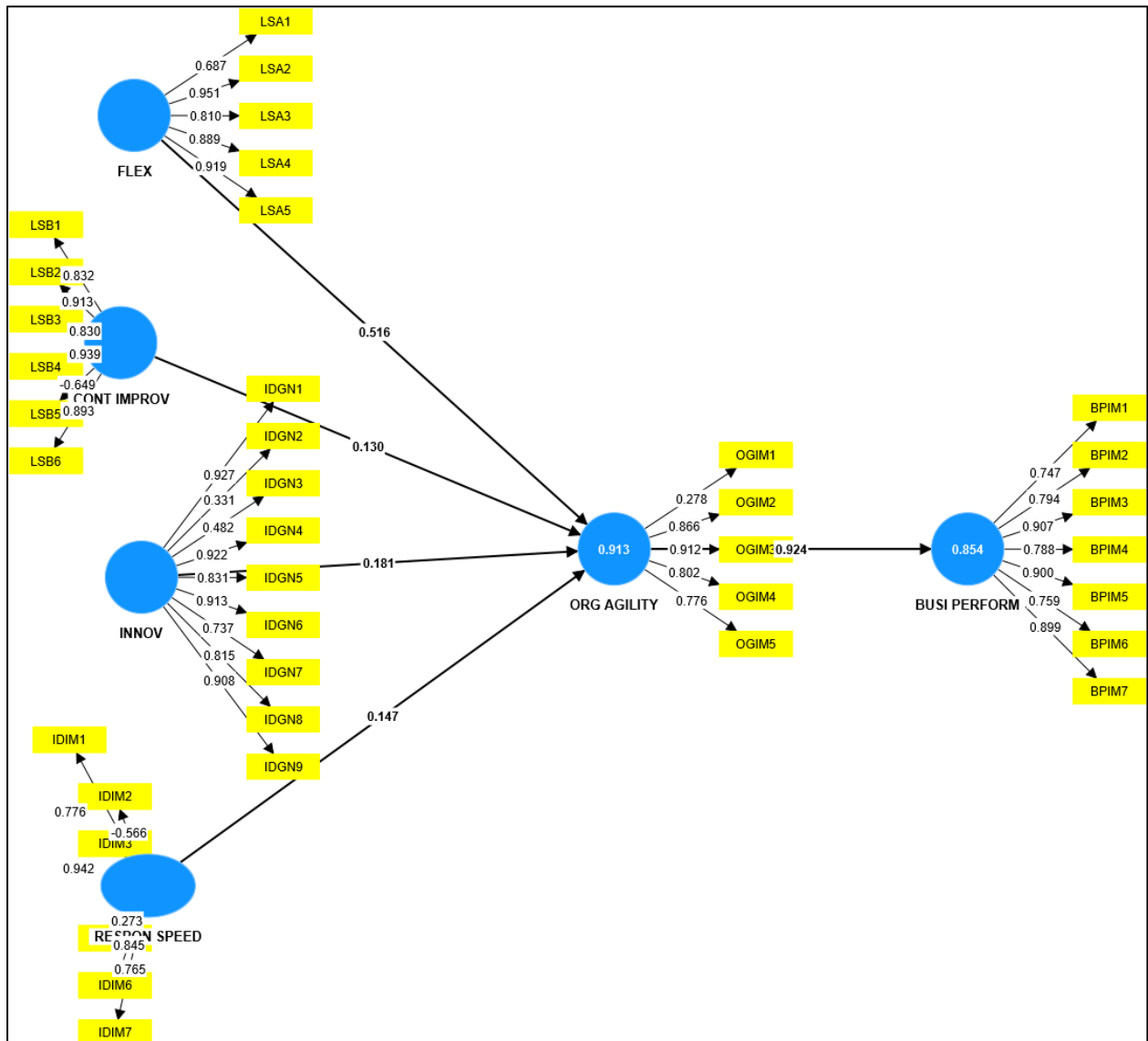


Table 2: Construct reliability and validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Business Performance	0.924	0.935	0.939	0.689
Continuous Improvement	0.741	0.935	0.894	0.719
Flexibility	0.905	0.920	0.931	0.733
Innovation	0.912	0.949	0.933	0.623
Organizational Agility	0.792	0.870	0.863	0.581
Responding Speed	0.571	0.886	0.766	0.531

The Figure 2 shows the SEM model generated using the SmartPLS 4.

Figure 2: SEM Model



RESEARCH RESULTS

The correlations are shown in the table 3 below

Table 3: Correlations

	Business Performance	Continuous Improvement	Flexibility	Innovation	Organizational agility	Responding speed
Business Performance	1.000	0.941	0.944	0.947	0.924	0.942
Continuous Improvement	0.941	1.000	0.955	0.959	0.933	0.936
Flexibility	0.944	0.955	1.000	0.959	0.949	0.924
Innovation	0.947	0.959	0.959	1.000	0.936	0.930
Organizational Agility	0.924	0.933	0.949	0.936	1.000	0.913
Responding Speed	0.942	0.936	0.924	0.930	0.913	1.000

The first hypothesis (H1) suggests that there is a positive relationship between continuous improvement and OA. The figure 2 shows the path coefficient between the two constructs ($\beta = 0.130$; $p < 0.001$) which indicates a positive relationship between them. The hypothesis (H1) is therefore supported and the result illustrates that SMEs with focus on continuous improvement have higher OA. Thus SMEs in UAE can generate greater agility capabilities by focusing on continuous improvement activities.

The second hypothesis (H2) suggests that there is a positive relationship between innovation and OA. The figure 2 shows the path coefficient between the two constructs ($\beta = 0.181$; $p < 0.001$) which indicates a positive relationship between them. The hypotheses (H2) is therefore supported and the result illustrates that SMEs with better capacities to develop innovative and creative processes possess greater agility. Hence, the results of the study prove that improved innovation in the processes within UAE SMEs facilitates the ability of businesses to adapt better to disruptive changes in the environment.

The third hypothesis (H3) suggests that there is a positive relationship between organisational flexibility and OA. The figure 2 shows the path coefficient between the two constructs ($\beta = 0.516; p < 0.001$) which supports a positive and significant relationship between the two constructs. The hypotheses (H3) is therefore accepted. This result of the study proves that SMEs that possess the capability for reconfiguration also have greater agility. The survival and success of the SMEs in UAE can be therefore significantly improved.

The fourth hypothesis (H4) suggests that there is a positive relationship between responding speed and OA. The figure 2 shows the path coefficient between the two constructs ($\beta = 0.147; p < 0.001$) that supports a positive relationship. The hypotheses (H4) is therefore accepted. These results demonstrate that SMEs that have higher speed of responding to the changes in the environment have higher OA.

The fifth hypothesis (H5) suggests that there is a positive relationship between OA and business performance. The figure 2 shows the path coefficient between the two constructs ($\beta = 0.924; p < 0.001$) which supports a positive and significant relationship between OA and business performance. The hypotheses (H5) is therefore accepted. This result indicates then that through OA, SMEs in UAE are likely to have superior business performance.

CONCLUSION

The study demonstrates that the performance of SMEs can be significantly improved by improving the level of organizational agility. The four business best practices considered in this study definitely contribute in stimulating the performance of SMEs on organizational agility front. The results of the study can be applied to assist SMEs to face the ever changing dynamic business environments.

LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The study has several limitations that are worth noting. Since the geographic scope of the study was restricted to SMEs that were based in the UAE, hence a wider geographic coverage can be suggested for the further studies. The second limitation is that not all the business best

practices were considered for the purpose of studying OA. A further research can be conducted that will consider other factors influencing OA and thereby affecting the SME business performance. The third limitation is that the study can be susceptible to response bias. Similar studies can be further carried out considering other OA factors in other geographical locations.

REFERENCES

Alvesson, M., & Sandberg J. (2011). Generating research questions through problematization. *Academy of Management Review*, 36(2), 247–271. <https://doi.org/10.5465/AMR.2011.59330882>.

Amabile, T. M. 1979 'Effects of external evaluation on artistic creativity', *Journal of Personality and Social Psychology*, Vol. 37 No.2, pp. 221–233.

Anderson, J. C., & Narus, J. A. (2003). Selectively Pursuing More of Your Customer's Business. *MIT Sloan Management Review*, 44(3), 42–49.

Avlonitis J.G., Spiros P. Gounaris (1997), Marketing orientation and company performance: Industrial vs. consumer goods companies, *Industrial Marketing Management*, Volume 26, No. 5, 1997, pp. 385-402, ISSN 0019-8501.

Darwish, T. K., & Singh, S. (2013). Does strategic human resource involvement and development enhance organisational performance? *International Journal of Manpower*, 34(6), 674–692. <https://doi.org/10.1108/IJM-01-2012-0003>.

Di Minin, A., Frattini, F., Bianchi, M., Bortoluzzi, G., & Piccaluga, A. (2014). Udinese Calcio soccer club as a talents factory: Strategic agility, diverging objectives, and resource constraints. *Journal of European Management*, 32(2), 319–336. <https://doi.org/10.1016/j.emj.2013.04.001>.

Doz, Y. L., & Kosonen, M. (2010). Embedding strategic agility: A leadership agenda for accelerating business model renewal. *Long Range Planning*, 43(2), 370–382. <https://doi.org/10.1016/j.lrp.2009.07.006>.

Dubihlela, J., & Sandada, M. (2014). Impact of strategic planning on small and medium-sized enterprises (SMEs) performance: The role of employee participation, implementation incentives and evaluation and control. *Journal of Economics*, 5(1), 45–55. <https://doi.org/10.1080/09765239.2014.11884983>.

Ephoh, L. R., & Mafini, C. (2018). Green supply chain management in small and medium enterprises: Further empirical thoughts from South Africa. *Journal of Transport and Supply Chain Management*, 12(0), a393. <https://doi.org/10.4102/jtscm.v12i0.393>.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39–50.

Fraering, M. and Minor, M.S. (2006), "Sense of community: an exploratory study of US consumers of financial services", *International Journal of Bank Marketing*, Vol. 24 No. 5, pp. 284-306.

Goodman, P. S., Fichman, M., Lerch, F. J., & Snyder, P. R. (1995). Customer-Firm Relationships, Involvement, and Customer Satisfaction. *Academy of Management Journal*, 38(5), 1310–1324. <https://doi.org/10.2307/256859>

Haller, R. S. (2009). *Organisational agility: A preliminary investigation into the South African Financial Services Industry*. Masters dissertation, Graduate School of Business, University of Cape Town, South Africa. Retrieved from: <http://gsblibrary.uct.ac.za/researchreports/2009/Haller.pdf>.

Hasan, M. A., Sarkis, J., & Shankar, R. (2012). “Agility and production flow layouts: An analytical decision analysis”. *Computers & Industrial Engineering*, 62(4), 898-907.

Hulland, J. (1999) Use of Partial Least Squares (PLS) in Strategic Management Research: A Review of Four Recent Studies. *Strategic Management Journal*, 20, 195-204.

Kimberly, J. R., and Evanisko, M. J. 1981. Organizational innovation: The influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. *Academy of Management Journal* 24:689–713.

- Ledwith, A., & O'Dwyer, M. (2014). Perception of product advantage, NPD and organizational performance, *Journal of Small Business and Enterprise Development*, 21(1), 49–68. <https://doi.org/10.1108/JSBED-05-2013-0078>.
- Loury-Okoumba, W. V., & Mafini, C. (2018). Buyer-supplier relationships and firm performance in the fast-moving consumer goods retail industry. *Journal of Contemporary Management*, 15(1), 850–878.
- Lin, C. T., Chiu, H., & Chu, P. Y. (2006). "Agility Index in the Supply Chain". *International Journal of Production Economics*, 100(2), 285-299.
- Malekian, p., & Fekri, r. (2013). "Effect of agility in crisis management". *Journal of retrofit and rehabilitation industry*, 2(6), 36-44.
- Mirbagheri, m. (2012). "Continuous kaizen". *Intelligence industrial management*, 133 (3), 17-20.
- Mathe, L. (2017). *Business transformation through organisational ambidexterity and organisational agility*. Masters dissertation, Gordon Institute for Business Science, University of Pretoria. Retrieved from <https://repository.up.ac.za/bitstream/handle/2263/64878/MatheBusiness2018.pdf?sequence=1&isAllowed=y>.
- Muduli, A. (2015). High-performance work system, HRD climate and organisational performance: An empirical study, *European Journal of Training and Development*, 39(3), 239–257. <https://doi.org/10.1108/EJTD-02-2014-0022>.
- Narver, J. C., & Slater, S. F. (1990). The Effect of a Market Orientation on Business Profitability. *Journal of Marketing*, 54(4), 20–35. <https://doi.org/10.2307/1251757>
- Ngai, E. W., Chau, D. C., & Chan, T. L. A. (2011). "Information technology, operational, and management competencies for supply chain agility: Findings from case studies". *The Journal of Strategic Information Systems*, 20(3), 232-249.
- Nyambandi, F. (2016). Factors affecting the agility and implementation of business process management in a selected FET College in the Western Cape, South Africa. Masters dissertation, Faculty of Business and Management Sciences, Cape Peninsula University of Technology, South Africa. Retrieved from <http://etd.cput>.

ac.za/bitstream/handle/20.500.11838/2352/211109754-Nyambandi-F-Mtech- BIS-BUS-2016.pdf?sequence=1&isAllowed=y.

Purvis, L., Gosling, J., & Naim, M. M. (2014). “The development of a lean, agile and leagile supply network taxonomy based on differing types of flexibility”. *International Journal of Production Economics*, 151, 100-111.

Saleeshya, P. G. (2014). “Empirical Approaches to Assess Manufacturing Agility”. In J. Wang (Ed.), *Encyclopedia of Business Analytics and Optimization* (pp. 799-811).

Saleeshya, P. G., Thampi, K. S., & Raghuram, P. (2012). “A combined AHP and ISM-based model to assess the agility of supply chain—a case study”. *International Journal of Integrated Supply Management*, 7(1-3), 167-191.

Sangari, M. S., Razmi, J., & Zolfaghari, S. (2015). “Developing a practical evaluation framework for identifying critical factors to achieve supply chain agility”. *Measurement*, 62, 205-214.

Santos, J.B. and Brito, L.A. (2012) Towards a Subjective Measurement Model for Firm Performance. *Brazilian Administration Review*, 9, 95-117.

Sosiawani, I., Ramli, A. B., Mustafa, M. B., & Yusoff, R. Z. B. (2015). Strategic planning and firm performance: A proposed framework. *International Academic Research Journal of Business and Technology*, 1(2), 201–207.

Vermaak, F., Kirsten, E., & Wolmarans, H. (2015). Performance measurement in small and medium enterprises: South African accountants’ view. *Journal of Economic and Financial Sciences*, 8(1), 13–34. <https://doi.org/10.4102/jef.v8i1.81>.

Wales, W. J., Plarida, V., & Patel, P. C. (2013). Too much of a good thing? Absorptive capacity, firm performance, and the moderating role of entrepreneurial orientation. *Journal of Strategic Management*, 34(5), 622–633. <https://doi.org/10.1002/smj.2026>.

Winby, S., & Worley, C. G. (2014). Management processes for agility, speed, and innovation. *Journal of Organisational Dynamics*, 43(3), 225–234. <https://doi.org/10.1016/j.orgdyn.2014.08.009>.

Yildiz, S. (2010). A study on measuring business performance in banking sector. *Erciyes University Faculty of Economy and Administrative Sciences Journal*, 36(1), 179–193.

Yildiz, S., & Karakaş, A. (2012). Defining methods and criteria for measuring business performance: A comparative research between the literature in Turkey and foreign countries. *Procedia – Social and Behavioural Sciences*, 58(1), 1091–1102. <https://doi.org/10.1016/j.sbspro.2012.09.1090>.

Yusuf, Y. Y., Musa, A., Dauda, M., El-Berishy, N., Kovvuri, D., & Abubakar, T. (2014). “A study of the diffusion of agility and cluster competitiveness in the oil and gas supply chains”. *International Journal of Production Economics*, 147, 498-513.

