Journal of
Organisational Studies and Innovation
Vol. 7, no.1, Spring, 2020

Driving Forces for Business Growth in Saudi Arabia: Industrial Cross-Sectional Analysis

Ahmad Alojairi*, Syed Farrukh Amin**, Nadeem Akhtar**, Abdullah Basiouni**, and Walid Bahamdan ***

*Department of Accounting and Management Information System, King Fahd University of Petroleum and Minerals (KFUPM)**

*Management Sciences Department, Yanbu University College (YUC)***

*Sara Holding, Riyadh****

Abstract: The study leads to a multi-group investigation based on enterprises working in the Kingdom of Saudi Arabia using the Net-Enabled Business Innovation Cycle NEBIC model. The study concentrated on the adoption of the NEBIC model among various online sellers (small, medium and large firms, based on a number of employees and sales volume). Convenience sampling was used to collect the data from the proposed sample size of 500. A total of 338 responses were received. The structural equation modelling (SEM) method was used for path analysis via AMOS 21 and results revealed a reasonable fit between data collected and the model used: chi2 (125.292), chi2 / DF (5.221), RMSEA (0.111), CFI (0.969), and TLI (0.941). The model confirmed that there has been high co-linearity exist among all the constructs. The results also revealed that the multi-groups (i.e., sectors with different levels of online selling adoption, firms with different online buying orientations, and firms with different sizes) moderates a significant role on the research model. The multi-group analysis showed significant evidence that smaller firms with no prior online buying in sectors characterized as having lower online selling adoption rates may produce better results in their adoption of online selling. The study is limited to organizations working in Saudi Arabia. Future work will focus on different nations' online businesses to test the multi-group investigation.

Keywords*: Net-enablement, Online sellers, Multi-group analysis, Firms' size.*

Introduction

The United Arab Emirates leads the GCC countries in terms of adopting e-commerce (Boudkov & Tatjana, 2012), and Saudi Arabia is going to be the next leading market. However, the Middle Eastern nations have not been tested for the approval of new and rising technology and in some cases has even been considered a business hazard (Baabdullah et al., 2013). The leading causes for this have been identified in a robust cultural influence (Ansari, 2018; Ansari, 2019). Alghaith et al. (2010) found that organizations of numerous types require comprehensive study before entering the e-commerce business. This is why a number of studies have been conducted to examine the adoption of various rising ICTs (in the Saudi Arabian setting), such as Internet (Adaileh, 2012; Basiouni, 2017), broadband (Gulati & Yates, 2012), electronic commerce (Alotaibi et al., 2013; Basiouni, 2018) and electronic government (Bakeel, 2012); Alghaith et al., 2010)

This research paper adopts the suggestion of (Hair et al., 2010; Koufteros & Marcoulides, 2006; and Hox et al., 2017) that a multi-group examination ought to be led as various data

may contradict the tried model and the connections among the multiple factors of the model. Moreover, this examination researches explicit internal organizational capabilities that help firms embrace online selling instruments (Bilgihan & Busjisic, 2014; Wagner et al., 2017; Basiouni et al., 2017). The authors go over a progression of specific instances of products and services that are not typically sold online in Saudi Arabia; for example, household products and services which may incorporate laundry, pickup and delivery, vehicle wash, vehicle maintenance services, sustenance cooking and transportation, cosmetics products and so on.

There has been a continuous dialogue involving Wheeler's (2002) theory of net-enablement. For more than a decade, vast numbers of researchers have kept referring to the NEBIC model in their research (Chakarvarty et al., 2013; Chiang et al., 2012; Basiouni, 2018; Liu & Li, 2014; Nicholson et al., 2016; Yoo et al., 2010). The authors of this study join the dialogue by analysing Saudi Arabian firms across various business sectors.

Specifically, this study investigates the relationship between Net-enablement capability and the adoption of online selling. It examines if such a relationship remains unchanged, even if responders are grouped differently based on various internal and external business factors. After describing each factor of the model and testing the model, it assesses for any possible effect of the firms' different sizes, different online buying orientations, and sector's level of online selling adoption. Overall, it assesses how different groups behave while testing the association between Net-enablement capability and online selling adoption in Saudi Arabia.

Literature Review

Wigand (1997) describes that a network may consist of social systems, organizations, individuals, groups, whole industries, and political and social communities. Bell et al. (2001) and Tarafdar and Tanriverdi (2018) identify that networks help participants to share knowledge, experiences, and ideas. Similarly, the above author's term net-enablement is described as the innovative use of networks to connect suppliers, customers, and partners. According to Wheeler (2002), Tallon et al. (2016), Nicholson et al. (2016), and Tarafdar & Tanriverdi (2018) net-enablement capabilities can decrease the burdens concerning time and distance, swap information processes with physical processes, and enable innovation that helps firms in their competitive environments.

As indicated by research directed before uncovers that there are numerous components to control online-based business accomplishment, which incorporate product promotion, leisure, customer service, web navigation, and website design (Li, 2009). The web architecture was communicated that superb design, valuable web crawler, the most recent data, meaningful navigation, easy checkout and simple to utilize interface are significant for internet shopping (Pebrianti, 2016; Ansari, 2018).

A few endeavours have been utilized for breaking down and integrating current information that envelops reception and dissemination, RFID, knowledge management, business/IT alignment (Basiouni, 2012), electronic government, mobile payment, start-ups effectiveness (Ehrenhard et al., 2017) and mobile ticketing (Kapoor et al., 2013). Comparative endeavours have combined ebb likewise and flow investigation in the Middle Eastern setting; for instance, adoption of knowledge management systems in the Saudi Arabian context have been talked about and further conceptualized (Almaghrabi et al., 2011; Magd & Hamza, 2012).

This study uses the Net-enabled Business Innovation Cycle (NEBIC) model developed by Wheeler (2002), which shows how continued adoption and development in IT can help firms maintain business improvement and their growth. The model is derived from the well-known theories of dynamic capability and absorptive capacity (Teece et al., 1997; Rufaidah, 2016; Yoo et al., 2010; Zahra & George, 2002). The NEBIC model stresses that net-enablement brings customer value and builds up a feedback circle that helps future innovation decisions. Wheeler (2002) found mostly that effectively building up innovation development to keep up

business extension corresponded with improved net-enablement abilities. Organizations utilize their net-enablement capabilities to improve the procedures of distinguishing, choosing, and executing new technologies and therefore make customer value by keeping up business development and competitiveness.

The NEBIC model is a recurring model that consists of four capabilities within two levels of value recognition—the value potential level and the value realization level (Wheeler, 2002). These capabilities involve: (1) choosing emerging/enabling technologies (ET), (2) matching with economic opportunities (EO), (3) executing business innovation for growth (BI), and assessing customer value (CV). While the ET, EO, and BI capabilities compositely result in the value potential level, CV capability compositely result in the value realization level. This research paper addresses the first three capabilities, discussing internal organizational capabilities and adopting company value (rather than customer value) data and testing them against different groups of responders while adopting online selling in Saudi Arabia.

Further, Ehrenhard et al. (2017) found that there is a positive relationship between the level of development in internal organisational capability (i.e., NEBIC) and the development in firms' capabilities to adopt new information technology. However, other scholars (e.g., Abdurachman & Sriwardiningsih, 2016; Hair et al. 2010; Hox et al. 2017; Koufteros & Marcoulides, 2006) warned researchers that different groups of responders may behave differently. They recommended conducting multi-group analysis to highlight any variations in responders' behaviours.

The Model

The research model has three variables: 1) selecting enabling technologies (SET); 2) comparing proposed technologies with economic opportunities (CTEO) and 3) implementing online selling as business innovation for growth (IOSBIG). Each of these variables has sub-variables such as SET; Identifying, Filtering, Assessing & Reaching Conclusion (ARC); CTEO; Selecting appropriate economic opportunity (SEO), continual dialogue and sense-making (CDS); and IOSBIG; creation of supportive environment (CSE), employee education (EE) and project management (PM).

SET involves appropriate developments in IT, a broad cultural approach toward technology implementation, and feedback from preceding cycles of technology implementation. The IT department or the business function unit head manages this construct. CTEO allows the company to enjoy technology and commercial benefits that could be created for the company by selecting the planned technology. Before a company invests time and resources in making any essential changes, a cautious inspection is required.

IOSBIG construct inputs indicate adopting online selling for further business development and growth while ensuring appropriate business internal modification. A strong IOSBIG construct contributes to the reconfigurations pertaining to the proposed technology (online selling) adoption (Alojairi & Safayeni, 2012; Wheeler, 2002). To show the prediction power of the model, the net-enablement variables (SET, CTEO, and IOSBIG) employs firms from Saudi Arabia to test whether they are associated with better developed net-enablement variables. The dynamic capability theory posits that firms must continually craft, adapt, and reconfigure internal and external resources to be associated with the ever-changing business environment and to attain competitive benefit (Baker et al., 2011; Wheeler, 2002; Basiouni, 2012; Basiouni, 2018).

The research model alludes to the selection of online selling as a new innovation adopted by firms. The model focused on in this exploration consists of the progressions a Saudi firm makes for working together to customize and use the online selling appropriation that came about because of a well-created net-enablement ability (i.e., spoken to by the IOSBIG variable). These focused on advancements can happen in numerous parts of the firm; for example, the firm's products, services, sales channels, and supply chain. They can take on

numerous creative structures, including technological, procedural, and administrative. Wheeler's (2002) model supposes that there is a positive connection between effectively actualizing innovation development to hold extension, on one side, and improved net-enablement capacity, on the other.

H_1: *There is a positive co-linearity that exists between SET and CTEO.*

H_2: *There is a positive co-linearity that exists between CTEO and IOSBIG.*

It is argued that firms in sectors characterized as having lower IT adoption rates (i.e., utilities, construction, transportation, real estate, health, and accommodation sectors) may initiate a move towards IT adoption both innovatively and entrepreneurially compared to sectors with higher online selling adoption rates (i.e., manufacturing, wholesale, retail, information, finance and insurance, admin, educational services, and public sectors) (Kioses et al., 2006).

H_3: *There is a moderating role based on the different online selling adoption rate across sectors between CTEO and IOSBIG.*

It is also argued that online selling may be influenced by the past knowledge of the firms of buying online. This argument is in-line with the absorptive capacity theory, originally developed by Cohen and Levinthal (1990), to judge how learning experience maybe developed through prior experiences. Further, online buying is more common compared with online selling and many researchers agreed that prior experience exert a positive impact on the businesses future development and success (e.g., Giri & Wellang, 2016; Pebrianti, 2016). This study argues that firm's ordination towards online buying may affect the decision to sell online.

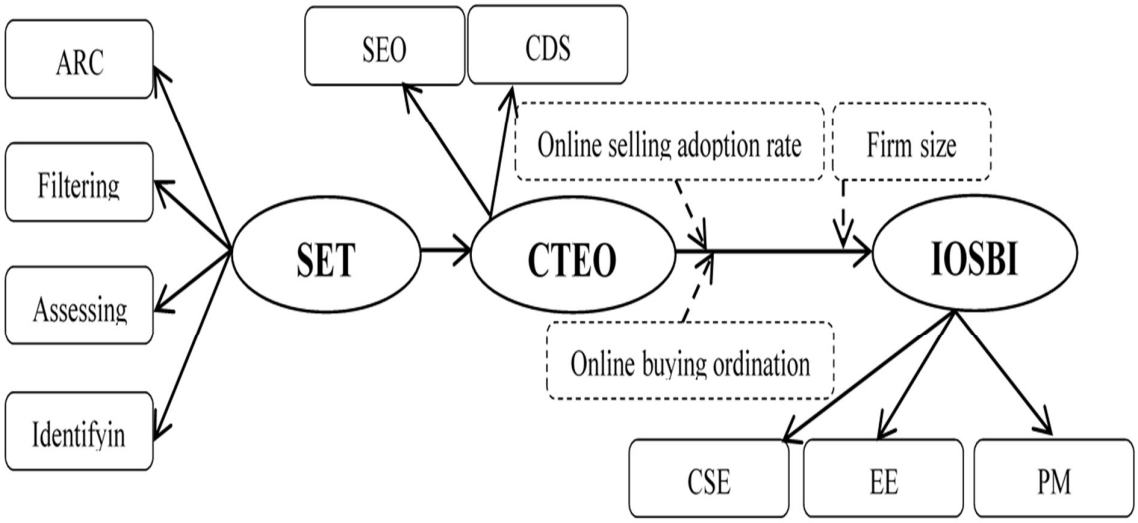
H_4: *There is a moderating role based on different online buying ordinations between CTEO and IOSBIG.*

Firm size was also identified in this study to conduct the multi-group analysis. In fact, smaller firms (i.e., fewer than 50 employees) are more likely to be innovative and technology oriented (Golovko & Valentini, 2011). According to Fischer and Reuber (2011) smaller firms are more eager to sell online to maintain economic growth. Thus, this study argues that firm size may affect the decision to sell online and innovatively adopt online selling technology.

H_5: *There is a moderating role based on different firm sizes between CTEO and IOSBIG.*

The framework of this study is shown in Figure 1. It shows the interaction among the study's components and the possible impact of variations exerted by different groups of responders.

Figure 1: Conceptual model for online selling adoption. Dashed lines indicate the moderation effect of different groups of responders.



Methodology

Data collection methodology

An online seven-point Likert scale survey based on Basiouni (2017) developed scales designed to collect data from firms listed in the Saudi stock exchange (Tadawul) directory. A sample of 500 firms was selected by using the conventional approach. About 2% of responses were discarded due to incomplete and insufficient data provided. A total of 338 firms completed these questionnaires, i.e., 68% net response rate. The questionnaire consists of many sections such as demographic information about the firms, e-facilitating tools used by the firms, online selling and buying options, and three main factors: Selecting Enabling Technologies (SET); Comparing Proposed Technologies with Economic Opportunities (CTEO) and Implementing Online Selling as Business Innovation for Growth (IOSBIG). Each of these factors has 21, 12 and 21 questions respectively. The investigation utilizes different examination strategies using SPSS for descriptive analysis and AMOS for Structural Equation Modelling (SEM).

Results and Discussion

According to the Cronbach's alpha test, all values were greater than 0.90 – a high level of accuracy of the theoretical constructs explained by the scale items. Furthermore, all constructs have average variance explained (AVE) greater than 77% and all item loadings were at least 0.8. All corrected item-total correlation (CITC) values were above 0.4 – a high level of validity of the theoretical constructs explained by the scale items.

Demographic analysis

Data were collected from 338 firms operating in Saudi Arabia. A total of 43% have established the business since 2000. Some 13% were established before 1950 and the remaining 44% were found in the last half-century of the last millennium. A total of 62% of the responding firms belong to the Petroleum, Pharmaceutical and Public Government organizations sectors. A total of 48% of the respondents were employees of these firms and other respondents were GMs/directors, presidents and owners. Regarding firm's size, 64% companies were large, 22% were small and the remaining 14% were medium (based on number of employees). Most of the firms responded that they had high-level Internet- based facilities and they used various platforms in this regard. The data presented in the demographic analysis revealed that 45% of them targeted other markets for their online business, 35% to direct consumers and 20% to government organizations. Also, 72% of the firms sell online and 55% use online purchasing options.

Reliability tests

Table1 presents Cronbach's Alpha values. The researcher divided the data into three firm segments; Small, medium and large. The values obtained through Cronbach's Alpha test are extremely high and most of the values lie above 0.90. This leads to extremely high consistency in the data provided by the respondents. While the reported values of Cronbach's Alpha are very high, still these values are in-line with the reported values and recommendations by other researchers (e.g., Nunnally, 1978; Bagozzi & Yi, 1988; Hair et al., 2010). To further support this we performed another reliability test, Squared Multiple Correlations (SMC) - also called "item reliability", to assess the reliability of the constructs. This test shows how well an item measures a construct and explains the variance; the higher the value, the better the measurement (Gefen et al 2000; Hair et al., 2010). There is no recommended threshold value; however, all of the reported data were well above 0.5 and consistent with the reported Cronbach's Alpha values.

Table 1: Results of Cronbach's Alpha and SMC for the received data

Variables	Firm's Size	Cronbach's Alpha	SMC
	Small	No. 75	
SET		0.975	0.834
CTEO		0.970	0.778
IOSBIG		0.975	0.634
	Medium	No. 48	
SET		0.955	0.798
CTEO		0.934	0.632
IOSBIG		0.965	0.619
	Large	No. 215	
SET		0.967	0.826
CTEO		0.943	0.766
IOSBIG		0.965	0.619

Hypothesis testing and path analysis

After conducting SEM analysis in AMOS 21, all paths were found to be significant and positively correlated (Table 2). Each variable is significant to the other variable, as the P-value is significant in each case. This interprets that the impact of SET over CTEO is highly correlated and the estimate value reveals as 0.97. It means about 97% of the time, the SET has a positive impact over the CTEO in the prescribed model. Similarly, the relationship between CTEO and IOSBIG is found to be highly correlated and very significant as the value reveals that 94% (0.94) the CTEO has highly and positive impact over IOSBIG. This implies that every one of the constructs bolster each other in accomplishing a definitive yield of the model. The GOF analysis was also conducted and revealed chi2 (125.292), DF (24), p-value < 0.05, normal chi2 (5.221), the model CFI (0.969), TLI (0.941) and RMSEA (0.111). Based on the reported results, the study concluded that the model showed a good overall fit and acknowledged the hypotheses H1 and H2.

Table 2: Results of Path Coefficient Analysis – All Firms

Path	SE	P-Value	State
CTEO --> SET (H1)	0.97	<0.001	Accept
IOSBIG --> CTEO (H2)	0.94	<0.001	Accept

Multi-group analysis results

The original data file was divided into six groups (two groups per analysis). The first one dealt with the level of online selling adoption rates across sectors, showing sectors with high adoption rates (n=205) and sectors with low adoption rates (n=133). Second, the sample was divided into firms with online buying orientation (n=191) and firms with no prior online buying orientation (n=147). An analysis was also conducted on firms based on their sizes, namely small companies (n=66, firms with less than 50 employees) and medium and large companies (n=272, firms with 50 employees or more).

Table 3 presents the results of multi-group analysis based on sectors' level of online selling rates, online buying ordination, and firms' size as moderating variables between CTEO and IOSBIG. The results show that those different groups of responders have significant impact on the relationship between CTEO and IOSBIG.

Table 3: Results of the Path Coefficient Analysis between CTEO and IOSBIG

The Study's Group of Responders		Coef.	Chi^2 Diff(*)	DF Diff(*)	p-Value (**)	State
Sectors level of Online Selling (H3)	Sectors with low level of online selling	0.98	79.22	24	<0.001	Accept
	sectors with high level of online selling	0.93	85.154		<0.001	
Online Buying Orientation (H4)	Online Buyers	0.90	81.081	24	<0.001	Accept
	Non-online Buyers	0.99	83.256		<0.001	
Firm Size (H5)	Small	0.99	63.770	24	<0.001	Accept
	Medium and Large	0.93	96.689		<0.001	

* The values listed represent the results of the comparisons between both the unconstrained and constrained models

** Values are significant at $p < 0.001$

Firms from sectors characterized as having low online selling adoption rates are better represented in this research model compared to firms from sectors with higher online selling rates. This may mean that a challenging environment against online selling may push firms to find ways to sell online and to create a competitive advantages over their competitors within the same business environment of lower online selling rates. This may mean that online sellers in sectors with low adoption rates exhibited major organisational and products/services innovations while others in sectors with high adoption rates fought for changing their business bureaucracy to exploit the opportunities of adopting new technologies. This confirms H3.

Interestingly, responders with no online buying orientation are statistically better than those with prior online buying experience in representing the research model and in adopting online selling and. That is, the impact of prior online buying experience results in a negative impact on the decision to sell online. While supporting confirming hypothesis (i.e., H4), this finding is in contradiction with the absorptive capacity theory, as the prior impact of online buying results in a negative impact on the decision to sell online. However, Carr (2003) claimed that prior IT experience may become a source of future threat and rigidity. In fact, many decision makers may become hesitant to implement new technologies because of some psychological issues that may limit them from gaining the significant benefits associated with the rejected new technologies. As a result, this finding also suggests that the relationship between online selling and online buying may not be as linear as explained in the literature. Consequently, the decision to sell online may be nonlinearly and entrepreneurially executed.

It is also found that groups classified according to size showed a significant relationship between CTEO and IOSBIG capabilities.

Smaller firms showed a better relationship than larger firms which supports H5. This may mean that smaller firms are more likely to enter other markets ahead of the limited current local market, and they are more innovative in their marketing strategy than their larger counterparts.

Conclusion

The aim of this study is to contribute to the literature on net-enablement and e-business adoption in Saudi Arabia while controlling for the possible differences in responders'

behaviours against the research model. This study tests the relationship between the firms' internal Net-enablement capability while adopting online selling. The presented results confirm that net-enablement is positively and exceptionally correlated online selling adoption, which indicate that increasing the level of net-enablement capability development would prompt a higher number of technology-adopting firms. The examination additionally displays that there is higher and positive correlation even among the parts of the model's constructs for net-enablement in Saudi business firms. A multi-group analysis applied to test the relationship between the constructs CTEO and IOSBIG. Every one of the three hypotheses (e.g., H3, H4, and H5) has been examined and found positive among the multi-group investigation approach and thus accepted. The study revealed that smaller organizations with no past experience in online buying and from sectors characterized as having lower online sales embraced the model for their online selling choices effectively. All three levels of analysis (sellers based on prior online buying experience, sellers based on company size, and sellers classified according to their sectors) only concerned Saudi firms. This limits the geographic scope of the present findings. Future research could look at other countries. Also, the fact that there is only one key responder from each company may lead to common method bias which can be tackled in future studies.

Acknowledgment

The authors of the paper would like to acknowledge the support brought by Yanbu University College (Royal Commission for Jubail and Yanbu) and King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia by funding this project [IN131022].

References

Abdurachman, E., & Sriwardiningsih, E. (2016). The effect of the diffusion of university website innovation on student behaviour of state and private universities: A comparative study. *Pertanika International Journal of Social Science and Humanities*, 24(S), 177-186.

Adaileh, M. (2012). An Empirical Study of Internet Use in Saudian's Small and Medium Enterprises. *International Journal of Academic Research in Business and Social Sciences, 8*(3), 169-191. doi:https://doi.org/10.5539/ass.v8n3p169

Akgun, A., Lynn, G., & Yilmaz, C. (2006). Learning Process In New Product Development Teams And Effects On Product Success: A Socio-Cognitive Perspective. *Industrial Marketing Management*, 210-224. doi:https://doi.org/10.1016/j.indmarman.2005.02.005

Alghaith, W. A., Sanzogni, L., & Sandhu, K. (2010). Factors influencing the adoption and usage of online services in Saudi Arabia. *Electronic Journal on Information Systems in Developing Countries, 40*(1), 1-32. doi:https://doi.org/10.1002/j.1681-4835.2010.tb00283.x

Almaghrabi, T., Dennis, C., & Halliday, S. V. (2011). Antecedents of Continuance Intentions towards E-Shopping: The case of Saudi Arabia. *Journal of Enterprise information Management, 24*(1), 85-111. doi:https://doi.org/10.1108/17410391111097447

Alojairi, A., & Safayeni, F. (2012). The dynamics of inter-node coordination in social networks: A theoretical perspective and empirical evidence. *International Journal of Project Management*, 30, 15-26.

Alotaibi, S., Osmani, S., & Pricec, A. D. F. (2013). A Framework for Improving Project Performance of Standard Design Models in Saudi Arabia. *Journal of Engineering and* Project Management, 3(2), 85-98. doi:https://doi.org/10.32738/JEPPM.201307.0005

Ansari, Z. (2019). Measuring online consumer behavior: scale development & validation. *Journal of Business and Retail Management Research*, 13(3).

Ansari, Z. (2018). Socio Cultural Influences on Online Shopping Behaviour. *Journal of Business and Retail Management Research*, 13(2)

Baabdullah, A., Dwivedi, Y. K., & Wi. (2013). Adoption research in Saudi Arabian Context: Analysing Past and outline Future Research Directions. Paper presented at the European, Mediterranean & Middle Eastern Conference on Information Systems, Windsor, UK.
Bagozzi, R. P. and Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1),74–94.
Bakeel, O. (2012). Modeling User Acceptance and Attitudes towards using E-Government Business Services in the Saudi private Sectors. *American Journal of Economics, 2*(6), 128-131. doi:https://doi.org/10.5923/j.economics.20120206.06
Baker, J., Jones, D., Cao, Q., & Song, J. (2011). Conceptualizing The Dynamic Strategic Alignment Competency. *Journal of the Association for Information Systems, 12*(4), 2. doi:https://doi.org/10.17705/1jais.00265
Basiouni, A (2018). A Multi-Group Analysis of Innovation in Online Business Models. *PERTANIKA Journal of Social Science and Humanities*, 26(T), 51-62.
Basiouni, A. (2017). Assessing Saudi Arabian Business IT Capabilities for Online Selling Adoption. *International Journal of Management and Applied Science*, 3(5), 111-118.
Basiouni, A. (2012). Innovation in e-Business Models: A Net-Enabled Business Innovation Cycle (NEBIC) theory perspective (Doctoral dissertation). University of Waterloo, Canada.
Basiouni, A., Tan, K., Ali, H., Almansour, A., Alojairi, A. (2017). Empirical Study on the Applicability of Real Option Framework in E-Commerce Adoption Among Canadian Companies. *Ponte*, 73(5), 306-319.
Bell, J., McNaughton, R., & Young, S. (2001). Born-Again Global firms: An Extension to the Born Global Phenomenon. *Journal of International Management*, 7(3), 173-189. doi:https://doi.org/10.1016/S1075-4253(01)00043-6
Bilgihan, A., & Busjisic, M. (2014). The Effect of Website Features in Online Relationship Marketing: A case of Online Hotel Booking. *Electronic Commerce Research and Application, NA*(NA), NA. doi:https://doi.org/10.1016/j.elerap.2014.09.001
Boudkov, A. K., & Tatjana, K. (2012). *E-Commerce In Saudi Arabia: Driving The Evolution, Adaption And Growth Of E-Commerce In The Retail Industry*. Retrieved from Jeddah, KSA:
Carr, N. (2003). IT doesn't matter. Harvard Business Review, 81(5), 41-49.
Chakarvarty, A., Grewal, R., & Sambamurty, V. (2013). Information Technology Competencies, Organizational Agility and Firm Performance: Enabling and Facilitating Roles. *Information Systems Research, 24*(4), 976-997. doi:https://doi.org/10.1287/isre.2013.0500
Chesbrough, H. (2007). Business Model Innovation: It's not Just about Technology Anymore. *Strategy and Leadership, 35*(6), 12-17. doi:https://doi.org/10.1108/10878570710833714
Chiang, C. Y., Kocabasoglu-Hillmer, C., & Suresh, N. (2012). An Empirical Investigation Of The Impact Of Strategic Sourcing And Flexibility On Firm's Supply Chain Agility. *International Journal of Operations and Production Management, 32*(1), 49-78. doi:https://doi.org/10.1108/01443571211195736
Cohen, W., and Levinthal, D. (1990). Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128-152
Ehrenhard, M., Wijnhoven, F., Van Den Broek, T., & Stagno, M. Z. (2017). Unlocking how start-ups create Business Value with Mobile Applications: Development of an App-enabled Business innovation Cycle. *Technological Forecasting and Social Change, 115*(1), 26-36. doi:https://doi.org/10.1016/j.techfore.2016.09.011
Fischer, E., & Reuber, R. (2011). Building international sales in a digitized economy - Best practices for SMEs. The Conference Board of Canada, Ottawa, Canada.
Gefen, D., Straub, D., and Boudreau, M. (2000). Structural equation modeling and regression: guidelines for research practice. *Communications of AIS*, 7(7), 1-78.

Giri, R., & Wellang, K. (2016). Impact of website design, trust, and internet skill on the behaviour use of site internet banking in Bandung Raya: A modification of the Utaut Model. *Pertanika International Journal of Social Science and Humanities*, 24(S), 35-50.

Golovko, E., & Valentini, G. (2011). Exploring the complementarity between innovation and export for SMEs' growth. *Journal of International Business Studies*, 42, 362-380.

Green, S., & Thompson, M. (2012). *A flexible structural equation modeling approach for analyzing means*. In R. H. Hoyle (Ed.), Handbook of structural equation modeling. Guilford Press.

Gulati, G. J., & Yates, D. J. (2012). Different Paths to Universal Access: The Impact of Policy and Regulation on Broadband Diffusion in the Developed and Developing Worlds. *The Telecommunications Policy, 36*(9), 749-761. doi:https://doi.org/10.1016/j.telpol.2012.06.013

Hair, J., Anderson, R., Babin, B., & Black, W. (2010). *Multivariate Data Analysis: A Global Perspective*. New Jersy: Pearson - Prentice Hall.

Hox, J., De Leeuw, E., & Klausch, T. (2017). Mixed Mode Research: Issues in Design and Analysis. *Total Survey Error in Practice*, 511-530. doi:https://doi.org/10.1002/9781119041702.ch23

Kapoor, K., Dwivedi, Y. K., & Williams, M. D. (2013). Role of Innovation Attributes in Explaining the Adoption Intention for the Interbank Mobile Payment Service in Indian Context. *Berlin Heidelberg: Springer*, 203-220. doi:https://doi.org/10.1007/978-3-642-38862-0_13

Kioses, E., Pramatari, K., & Doukidis, G. (2006). Factors affecting perceived impact of electronic marketplaces. Proceedings of the 19*th* BLED Conference (pp. 1-16). Bled, Slovenia.

Koufteros, X., & Marcoulides, G. (2006). Product Development Practices and Performance: A Structural equation Modeling-based multi-group Analysis. *International Journal of Production Economics, 103*, 286-307. doi:https://doi.org/10.1016/j.ijpe.2005.08.004

Li, J. (2009). *Theoretical Model of Consumer Acceptance: In the View of Website Quality.* Paper presented at the International Conference on E-Business and Information Systems Security (EBISS).

Liu, B., & Li, D. (2014). Determinants of Successful IT-Enabled Business Innovation: A case study from the perspective of Institutional Entrepreneurship Theory. *Frontier of Business Research in China, 8*(2), 227-244.

Magd, H., & Hamza, S. (2012). A proposed Knowledge Management System in SOFCON: Saudi Arabian Perspective. *Nang Yan Business Journal, 2*(07), 119-128. doi:https://doi.org/10.2478/nybj-2014-0017

Nicholson, J., Shen, Y., & Nicholson, D. (2016). Increasing Entrepreneurial Intentions among Business Students: Using a Net-Enabled Business Innovation Cycle Theory. *Journal of Higher Education Theory and Practices, 16*(3), 84-93.

Nunnally, J. (1978). Psychometric Theory. McGraw-Hill Book Company, Toronto.

Pebrianti, W. (2016). Web Attractiveness, Hedonic Shopping Value and Online Buying Decision. *International Journal of Economics and Management, 10*(S1), 123-134.

Rufaidah, P. (2016). Dynamic capability in branding strategy development. Pertanika *International Journal of Economic and Management*, 10(S1), 183-196.

Teece, D., Pisano, G., and Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal* , 18(7), 509-533.

Tallon, P. P., Coltman, T., Queiros, M., & Sharma, R. (2016). Business Process and Information Technology Alignment: Construct Conceptualization, Empirical Illustration and

Directions for Future Research. *Journal of the Association for Information Systems*, 17(9), 563. doi:https://doi.org/10.17705/1jais.00438
Tarafdar, M., & Tanriverdi, H. (2018). Impact of the Information Technology Unit on Information Technology-Embedded Product Innovation. *Journal of the Association for Information Systems*, 19 (8), 716-751.
Wagner, G., Schramm-Klein, H., & Steinmann, S. (2017). Consumers' Attitudes and Intentions Towards Internet-enabled TV Shopping. *Journal of Retailing and Consumer Services, 34*, 278-286. doi:https://doi.org/10.1016/j.jretconser.2016.01.010
Wheeler, B. (2002). A Dynamic Capabilities theory for assessing Net-Enablement. *Information Systems Research, 13*(2), 125-145. doi:https://doi.org/10.1287/isre.13.2.125.89
Wigand, R. (1997). Electronic Commerce: Definition, Theory and Context. *The Information Society, 13*(1), 1-16. doi:https://doi.org/10.1080/019722497129241
William, M. (2004). Organizational Routines for Choosing Information Technology: A Multiple Case Studies Examination of NEBIC Theory's choosing Capability. In: Indian University, School of Business.
Yoo, Y., Henfirdsson, O., & Lyytinen, K. (2010). The New Organizing Logic Of Digital Innovation: An Agenda For Information Systems Research. *Information Systems Research, 21*(4), 724-735. doi:https://doi.org/10.1287/isre.1100.0322
Zahra, S., & George, G. (2002). The net-enabled business innovation cycle and the evolution of dynamic capabilities. *Information Systems Research*, 13(2), 147-150.