



## INSOURCING OR OUTSOURCING AND COMPETITIVENESS OF FIRMS IN NORTHERN NIGERIA

A. Y. Dutse<sup>1</sup>, M. M. Bayero<sup>2</sup>, Tijjani Abubakar<sup>1</sup> and Adamu M. Sani<sup>2</sup>

<sup>1</sup>Department of Management and Information Technology, Faculty of Management Sciences, Abubakar Tafawa Balewa University, Bauchi, Nigeria

<sup>2</sup>Department of Accounting and Business Administration, Faculty of Humanities, Management and Social Sciences, Federal University of Kashere, Nigeria  
E-mail: [mmusabayero@gmail.com](mailto:mmusabayero@gmail.com)

Received : 12 Aug. 2020; Revised : 18 Aug. 2020; Accepted : 9 Sep. 2020; Published : 14 Sept. 2020

**Abstract:** *Purpose* - The study titled 'insourcing and outsourcing for competitiveness' holds that firms' internal resources are fundamental to making strategic decisions on promoting competitiveness. The paper examines five firms' resources; physical, human, financial, intangible resources and technology as insourcing or outsourcing and competitiveness. The choice to insource or outsource either a technology or manpower to manage those technology depends on the ultimate goal and the core competence of an organization. However, outsourcing as a business strategy offer variety of opportunities and attending challenges. Hence, the reason for this study.

*Design/Method/Approach* : The study adopted cross-sectional survey design, and targeted 384 sample from unknown population, because we could not exactly determine the number of registered companies within the region Northern Nigeria. The study personally administered structured questionnaires for data collection. The sample distribution was that; north-central zone, 29% of 384 questionnaires were administered to 112 firms' high-ranking staff as it is proportionate to the cluster size, then north-east 94 (25%) questionnaires and finally north-west 178 (46%). The collected data were analyzed using SPSS package – version 20

*Finding* : It is evident that this result provided substantial evidence to conclude that insourcing is a more useful and has positive effect on firms to predict competitiveness of firms than outsourcing in Northern Nigeria.

*Limitation/Implication* : Further studies should conduct similar studies at different geographical locations to examine the behaviour of the data as well as the measurements of the study variables. Firms should always hold on their core competencies, thereby differentiating their resources to that of competitors. To attain such, they should critically examine their controllable and uncontrollable environment for appropriate exploitation of industry players of these resources.

### To cite this article:

A. Y. Dustse, M. M. Bayero, Tijjani Abubakar and Adamu M. Sani. Insourcing or Outsourcing and Competitiveness of Firms in Northern Nigeria. *Indian Journal of Applied Business and Economic Research*, Vol. 1, No. 1, 2020, pp. 63-76.

*Originality* : Review of the related literature as well as the data collected for this study were originally collected by the authors of this research paper. Also, the findings of this research could practically help managers at different levels in ensuring strategies to employed between insourcing and outsourcing to drive competitive advantage, especially in northern Nigeria.

*Keywords*: Insourcing, Outsourcing Competitiveness, Northern Nigeria

## 1. INTRODUCTION

Firms' competitiveness can best be achieved under provision of adequate infrastructure at country or global level. In recent years, Nigeria's business environment has been suffering with uncertainty leading to collapse of businesses (local and multinational) outfits [1]. Business environment portrays the scope of firms' competitiveness, while the competitiveness presurise firms' innovations which constituted overall efficiency of the economy [2]. Nigeria's Economic activity is clustered in a way to create a controlled environment for industrialization to flourish, especially in the presence of chronic infrastructural deficits. This has traditionally taken the form of industrial estates or parks. The main benefit of the localization of firms in this way is that; it allows for infrastructural provisions to be prioritized and to give firms a competitive edge while offering access to raw materials, skilled labour, technology and materials [3].

In the Nigerian economic structure, the oil and gas sector has taken more than 95% export earnings of the country's GDP and 85% government revenue in early years of this decade, while manufacturing sector just accounted for 4% of the economic activity [3]. Competitiveness is basically practiced in Nigerian private sector, in which manufacturing sector accounted 70% to 90% of business establishments [4]. The proliferation in internet connectivity through the national information technology development agency (NITDA) has continue to change the dimension of Nigerian business environment to a more complex type, where competitiveness could best be practiced [5]. Consequently, the aggressive approach of the federal government of Nigeria via its deregulation and privatization policies that aimed to provide efficient services led to the establishment and expansion of an enabling business environment in the telecommunication industry in the country. In the mission statement, ICT is be used for education, wealth or job creation, poverty eradication and global competitiveness [6].

Services outsourcing by firms has been in rise in many countries in the world. Outsourcing refers to the process by which specific organizational services are contracted to outside firms as input [7]. As such, the core motive of information technology outsourcing is reduction of production costs, at

the same time providing quality service (internet service, network security, enterprise resource planning and customer service solutions) using qualified professionals, while focusing on core business functions to attained competitiveness [8, 9]. The choice to insource or outsource either a technology or manpower to manage those technology depends on the ultimate goal and the core competence of an organization. However, outsourcing as a business strategy offer variety of opportunities and attending challenges.

Within the extant literature, internal and external firms' resources were independently used to study competitiveness, on the basis of resource-based view (RBV) theory in different countries of the world. Specifically, most Nigeria studies were conducted on specific industries as; healthcare services [10-12], food and beverages [13-15], banking [16, 17], administration [18, 19] and none was found to have combined both internal and external resources to study competitiveness across varied industries in northern region of the country. Hence, the reason for this study. Therefore, the study came up with the following objectives:

- (i) To determine the effect of insourcing on competitiveness of firms in Northern Nigeria.
- (ii) To determine the effect of outsourcing on competitiveness of firms in Northern Nigeria.

## **2. LITERATURE REVIEW AND HYPOTHESES**

### **2.1. Concept of Competitiveness**

Competitiveness of firms is basically guided by the work of Porter [20] upon which firms can adopt as an advantage - product differentiation-based and cost-based competitiveness. The former refers to factors that deal products' quality, design and other characteristics that differentiate firms' offers of value over those of their competitors [21], as well as the advantages that are connected to services like delivery speed, reliability and good management of additional services offered by such firms [22, 23]. While the later, cost-based competitiveness lie within the sphere of manufacturing, management and commercialisation costs. They give the producer value in the form of lower costs and offer the lowest price to consumer [20-23]. Even though, the concept of competitiveness as the microeconomic concept is more applicable at firm level, not at nations' level as argued by [24].

The interdependence between firms' and within industries has been of great importance both at local and international level [25]. These

interdependencies were at the face of international investments, international trade, international business behaviour and industrial organizations. Ability of any business organization to its environment formed the basis for its key competitive advantage amongst its industry players [26]. For firm to do effective industry analysis, it must embrace Porter's five competitive strategies in connection with its internal resources [27]. Furthermore, Lynskey [28] expressed that improving the differential nature of a new company requires (1) the internal application of certain valuable knowledge-based resources and capabilities; (2) the skill to associate them with other external ones; (3) the capacity to integrate the knowledge derived from this association internally and (4) the capability to apply this knowledge to potentially successful business aims.

Based on the conceptualization of the competitive advantage concept shows that, by definition, a firm can achieve competitiveness, if it can effectively and efficiently manage its core internal business components (insource) and outsource components that have high costs and less risks to achieve higher performance.

## **2.2. Empirical Review**

### **2.2.1. Insourcing and Firms' Competitiveness**

Several literature established relationship between different organizational or firms' internal resources and competitiveness or competitive advantage grounding on resource based view theory [4, 26, 29-34]. Firms' internal resources were empirically studied in relation to their competitiveness at various contexts. For example, Bhatt, Wang [35] conducted a study on examines the moderating effect of the learning intensity of organizations on the relationship between information system competence and competitive advantages in 122 Chinese firms and found that learning intensity of organizations positively moderates the relationship between information system business skills and competitive advantages.

In line with intangible resources, Pulles, Veldman [36] examine how indirect capabilities (the ability to access external resources) can help to access privileged resource allocation from suppliers. The study showed that buying firm's selection capability and relational capability have positive influence on competitive advantage of firms. Furthermore, Lin and Wu [37] explored top 1000 Taiwanese companies on the role of dynamic capabilities in firm performance under the resource-based view framework, in which the findings showed that dynamic capabilities can mediate the firm's valuable, rare, inimitable and non-substitutable (VRIN) resources to improve performance. In addition, Schnitfeld and Busch [38] studied

supply chain in respect of sustainability management grounding on resource dependence view theory and developed a new theory that explains how intra/extra organizational sustainability management is affected by a firm's business case for promoting sustainability, control mechanisms, trade offs, trust and market liberalization.

As key strategy for competitiveness, firms can efficiently utilize its internal resources to attain higher performance withing any industry. Proper utilisation of internally manipulated resources will enable firms gain competitive advantage.

### ***2.2.2. Outsourcing and Firms' Competitiveness***

Outsourcing as one of strategic keys in operations management to many business organisations has been studied by several researchers. For instance; Asatiani, Penttinen [39] studied the relationship between the outsourcing motivation and the degree of actual outsourcing of 337 SMEs and found that cost reduction, focus on core competence and process improvement are all associated with outsourcing decision, while access to expertise is negatively related to outsourcing decision. Similarly, Aspir, Gafni [40] also studied the decision from insourcing to outsourcing in order to focus on core business function and attain cost reduction among Israeli IT firms. Furthermore, Davies [14] studied network for agricultural and food supply chain of beverages company. He found that employers and employees contribute to harmful food supply dynamics such as subcontracted labour in Nigeria.

Conversely, Farr and Lind [41] studied the motivating language and in the intent to stay back in a back-sourced information technology environment and found that organisations are bringing back (in-house) their IT operations and services because employees express their dissatisfaction of previous outsourcing experience. Similarly, Gravier and Hawkins [42] studied antecedents and consequences of integrating commercially off-the-shelf technology in the defence sector. They identified 14 enablers and 5 barriers as antecedents for COTS innovation. In our previous section, we identified that outsourcing strategy is mostly embraced by service sector, of which defence is one. Also, Hodosi and Rusu [43] identified the outsourcing strategy is adopted even in large companies, but most of which do not consider its accompanying costs. Even though, their study only considered information technology outsourcing only, not considering business process outsourcing.

Consequently, several literature in the service industries, particularly those adopted IT outsourcing are; [9, 12, 14, 16, 44-48].

Based on the empirical literature, most of the studies were conducted outside Nigeria, used varied independent variables, all in trying measure the level of competitiveness either at firm, industry or country level. As such, none was found to have studied availability of internal resources (physical, human, financial and intangible resources) and outsourcing to study firms' competitiveness as this. Therefore, this study has developed the following hypotheses:

- $H_1$ : Insourcing has positive effect on competitiveness of firms in Northern Nigeria.
- $H_2$ : Outsourcing has positive effect on competitiveness of firms in Northern Nigeria.

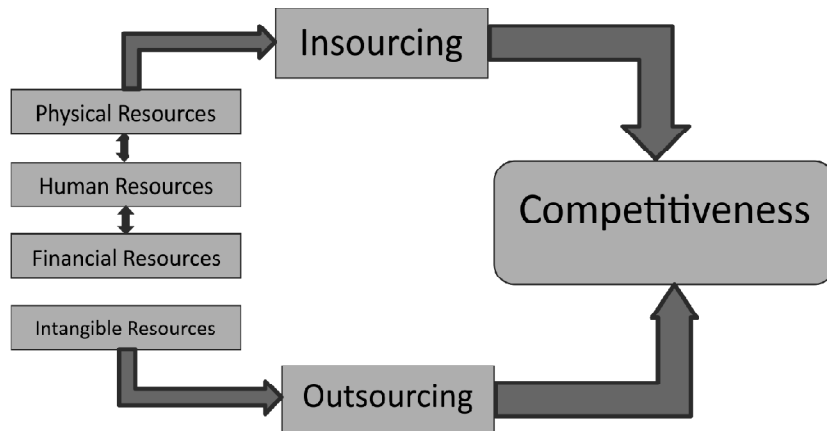


Figure 1: Research Model

### 3. METHODOLOGY

#### 3.1. Population and Sample

The study adopted cross-sectional survey design, and targeted 384 sample from unknown population, because we could not exactly determine the number of registered companies within the region Northern Nigeria. As such, we used the said sample as the maximum sample for social science research based on guide provided by Krejcie and Morgan [49] for sample size determination. Therefore, respondents for this our study comprise of corporate heads, managers, technical heads and supervisors from firms in the sectors of manufacturing, healthcare service, wholesales and retail sales, food and beverages, banking and insurance services, transportation and information and communication of different sizes, dispersed across the three geo-political zones of Northern Nigeria. This arrangement offers the chance

for general assessment of investment behavior of firms in terms of availability of internal resources and outsourcing within the context of competitiveness of firms in Nigeria.

A sample size of 384 was used to collect data based on the sample size approximation procedure provided in [49]. The sample distribution was that; north-central zone, 29% of 384 questionnaires were administered to 112 firms' high-ranking staff as it is proportionate to the cluster size, then north-east 94 (25%) questionnaires and finally north-west 178 (46%). The sample choice took into cognizance, the heterogeneity and homogeneity of industry for the respondents and level of desired sample size to meet the requirement for parametric analysis.

Consequently, a multi-stage sampling technique known as Probability Proportional to Size (PPS) Sampling was used as the sample selection procedure for clustering the firms based on the three geo-political zones and apportioning a number of structured questionnaires to each zone as the survey clusters proportionate to the level of industrialization of the state and firm size. Subsequently, randomly selecting respondents as a process of gathering empirical data was similar to the one used in the works of [50, 51].

Efforts were made to ensure that respondents were in senior positions and if possible, responsible for investments decisions in resources and had knowledge of working of their respective firms to ensure accuracy of responses. Likewise, personal efforts were made and use of research assistants in the distribution and retrieval of the questionnaires throughout the period for the study (February to October 2019).

### **3.2. Measurements**

The sampled high ranking staff of the firms provided responses on a five-point estimation scale in form of a structured questionnaire with values ranging from a minimum of 1 and a maximum of 5 demonstrating approximation levels of availability of physical, human, financial and intangible internal resources and outsourcing as well as firms' competitiveness. The scale responses were in the following pattern: 1 = Very Low; 2 = Low; 3 = Moderate; 4 = High and 5 = Very High.

### **3.3. Methods of Data Analyses**

Pearson's correlation and regression tests were performed to determine strength of relationship as well as the effect of the independent variables (internal resources and outsourcing). Hence, the interaction between the study variables was analysed based on the model relationship of

$y = \alpha + \beta_i X_i + \beta_{ii} X_{ii} + \varepsilon$ . However, the parametric analyses were performed with SPSS version 20.

## 4. RESULTS

### 4.1. Sample Adequacy

After the preliminary screening of the questionnaires, we found 311 questionnaires valid for analyses. As such, the sample is considered adequate and valid for parametric analyses using tools as SPSS on continuous data [52-55].

### 4.2. Descriptive Statistics

Table 1 presented mean statistics and standard deviations for the study variables. Insourcing revealed mean statistics of 4.17 and standard deviation of .51. also, outsourcing indicated mean statistics of 3.55 and standard deviation of .53. then, competitiveness as dependent variable indicates mean statistics of 3.8608 and standard deviation of .55. Lastly, the reliability results for insourcing, outsourcing and firms' competitiveness are 80.1%, 38.4% and 60.1% respectively.

**Table 1**  
Mean, SD and Reliability Statistics

S/N	Mean	Standard Deviation	Cronbach's Alpha	No. of Items
i.	4.17	.51	0.80	10
ii.	3.55	.53	0.38	5
iii.	3.86	.55	0.60	7

Table 2 presented the correlation analysis among the study variables. Outsourcing as an independent variable revealed negative relationship with the second independent variable (insourcing) and the dependent variable with values of -.25 and -.24 respectively. On the other hand, insourcing shown correlation of 41.2% with firms' competitiveness.

**Table 2**  
Correlations Matrix

S/N	Constructs	Insourcing	Outsourcing	Competitiveness
i.	Insourcing	1		
ii.	Outsourcing	-.25**	1	
iii.	Competitiveness	.41**	-.24**	1

\*\* p < .01 (1-tailed).



Furthermore, the data for this study revealed that insourcing and outsourcing have negative relationship, meaning that a business firm cannot insource and outsource a given component of its business operations at the same. When they acquire certain business competence in-house, it should then not spend any kind of resource to acquire same as outsourcing. Even though, business core competence is not always encouraged to be outsourced for competitive strategy reasons. The study data also indicated that outsourcing as independent variable, has negative relationship with firms’ competitiveness. This might be as a result of most business firms in the northern Nigeria practiced insourcing business strategy than outsourcing, because the data indicated a positive relationship between insourcing and firms’ competitiveness. Consequently, data for insourcing revealed higher mean and standard deviation as well as the reliability of measurement and number of measurement items for the study variables, followed by competitiveness, then, outsourcing.

**4.3. Inferential Statistics**

The multiple regression statistics revealed the existence as well as strength of causal-effect relationship among the study variables. Table 3 revealed the coefficient of determination as adjusted which accounted 18.4% of the variation in the on the level of insourcing of internal resources, outsourcing on firm’s competitiveness excluding other uncaptured variables in the model of this study. The analysis of variance statistics also indicated the simple linear combination the two independent variables as they relate to the dependent variable  $F(2, 177) = 35.84, P = 0.000 < 0.05$  alpha.

**Table 3**  
**ANOVA Statistics**

<i>Model 1</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Regression	0.19	0.18	17.99	2	8.99	35.84	0.00
Residual			77.28	308	0.25		
Total			95.26	310			

a. Predictors: (FIR Constant), Insourcing, Outsourcing  
 b. Response Var.: Competitiveness

Table 4 presented the error term in the linear regression equation for this study was developed at 0.05%, that is to say prediction of the measurements and the data is at 95% confidence level. Also, evaluation of individual contribution of the variables in explaining the variation in the model was done based on the standardized coefficient results as insourcing accounted positive and strong contributions of  $\text{Beta} = 0.38$ . Therefore,

Hypothesis 1 which states; “*Insourcing has positive effect on competitiveness of firms in Northern Nigeria*” is accepted.

Furthermore, table 4 presented the error term in the linear regression equation for this study was developed at 0.05%, that is to say prediction of the measurements and the data is at 95% confidence level. Also, evaluation of individual contribution of the variables in explaining the variation in the model was done based on the standardized coefficient results as outsourcing accounted for a weak and negative contribution of Beta = -0.143 and therefore, Hypothesis 2 which states; “*Outsourcing has positive effect on competitiveness of firms in Northern Nigeria*” is therefore, rejected.

Consequently, the data also revealed variance inflation factor and tolerance accounted of 1.07 and 0.94 for the two independent variables in the model, indicating absence of multicollinearity [56-60]. It is evident that this result provided substantial evidence to conclude that insourcing is a more useful to predict competitiveness of firms in Northern Nigeria.

**Table 4**  
**Model Summary Statistics**

Coefficient <sup>a</sup>	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Tolerance	VIF
	B	Std. Error	Beta				
(Constant)	2.28	0.40		5.73	0.000		
Insourcing	0.51	0.07	0.38	7.10	0.000	0.94	1.07
Outsourcing	-0.15	0.06	-0.14	-2.69	0.007	0.94	1.07

a. Predictors: (FIR Constant), Insourcing, Outsourcing

b. Response Var.: Competitiveness

## 5. CONCLUSION AND RECOMMENDATIONS

The study titled insourcing and outsourcing for competitiveness holds that firms’ internal resources are fundamental to making strategic decisions on promoting competitiveness. It is therefore that, those internally generated resources by firms, such as knowledge, finance, human, technology provide advantage in enhancing firms’ ability to generate and positioned high level of competitiveness than outsource. Regards to RVB approach; firms’ competitiveness is strategically derived from within, particularly those critical, valuable, rare, and difficult to imitate. Firms should always hold on their core competencies, thereby differentiating their resources to that of competitors. To attain such, they should critically examine their controllable and uncontrollable environment for appropriate exploitation of industry players these resources. Tangible and intangible resources,

financial resources, human resources, technology resources etc can fully or partly, permanently or temporarily be insourced or outsourced depending on the nature competitive strategy and core competences of the business firm, but the two cannot be observed concurrently. Majorly, the result for this study suggested insourcing is predominantly exercised than outsourcing among business firms in Northern Nigeria. Firms prefer internal development of resources for effective competitiveness within their respective industries than to source these resources outside. Further studies should conduct similar studies at different geographical locations to examine the behaviour of the data as well as the measurements of the study variables.

### References

- [1] Ogunro, V.O. (2014). *Nigeria's Business Environment: Issues Challenges and Prospects*. International Journal of Academic Research in Business and Social Sciences, **4**(4): p. 132.
- [2] Essie, W. (2012). *Business Environment and Competitiveness in Nigeria-considerations for Nigeria's Vision 2020*. International Research Journal of Finance and Economics, **97**: p. 44-54.
- [3] Chete, L.N. (2014). *et al., Industrial development and growth in Nigeria: Lessons and challenges*. WIDER Working Paper.
- [4] Eniola, A.A. and H. Ektebang (2014). *SME firms performance in Nigeria: Competitive advantage and its impact*. International journal of Research studies in management, **3**(2): p. 75-86.
- [5] Abiodun, O.O. and A.I. Sunday (2013). *Poverty alleviation through information and communications technology: a case study of Nigeria*. International journal of multidisciplinary sciences and engineering, p. 20-24.
- [6] Posu, S.M.A. (2006). *Information and communication technologies in the Nigerian economy*. in *International Conference on Human and Economic Resources, "Technology*.
- [7] Stear, E.B. and J. Wecksell (1997). *Information resource center management (IRCM)*. Bulletin of the American Society for Information Science and Technology, **23**(4): p. 15-17.
- [8] Kiteme, S.L. and A.N. Wausi (2019). *The Influence of Firms' Capability on Delivery of Quality Outsourced ICT Services in Kenya: A Case Study of a Public Institution*. International Journal of Recent Innovations in Academic Research, **3**(2): p. 103-113.
- [9] Mohamed, M.D., et al. (2019). *Information Systems Outsourcing Drivers And Service Delivery of Commercial Banks In Kenya*. Noble International Journal of Business and Management Research, **3**(1): p. 10-24.
- [10] Ikediashi, D. and A.M. Ekanem (2015). *Outsourcing of facilities management (FM) services in public hospitals: a study on Nigeria's perspective*. Journal of Facilities Management, **13**(1): p. 85-102.
- [11] Ikediashi, D. and O. Okwuashi (2015). *Significant factors influencing outsourcing decision for facilities management (FM) services: a study on Nigeria's public hospitals*. Property Management, **33**(1): p. 59-82.

- [12] Mamah, A.A. (2016). *Using quality of service delivery to evaluate federal government of Nigeria policy on public service outsourcing: a case of public healthcare institutions, Nigeria*. International journal of academic research in business and social sciences, **6**(5): p. 488-502.
- [13] Akinbola, O.A., O.O. Ogunnaike, and O.A. Ojo (2013). *Enterprise outsourcing strategies and marketing performance of fast food industry in Lagos state, Nigeria*. Global Journal of Business, Management and Accounting, **3**(1): p. 22-33.
- [14] Davies, J. (2020). *Corporate harm and embedded labour exploitation in agri-food supply networks*. European Journal of Criminology, p. 1477370819874416.
- [15] Rajee, F.S. and A.B. Hamed (2013). *Outsourcing services as a strategic tool for organizational performance: An exploratory study of Nigerian food, beverage, and tobacco industry*. Journal of Management Policies and Practices, **1**(1): p. 1-20.
- [16] Moloi, T. and O.O. Iredele (2020). *Risk Management in the Digital Era: The Case of Nigerian Banks*, in *Digital Transformation in Business and Society*, Springer. p. 229-246.
- [17] Suleiman, D.M. and K.I. Dandago (2014). *The extent of internal audit functions outsourcing by Nigerian deposit money banks*. Procedia-Social and Behavioral Sciences, **164**: p. 222-229.
- [18] Adegbami, A., O. Makinde, and B. Shiyanbade (2014). *Human resources outsource in nigeria: exploiting organisation's 'vital tools'*. International Journal of Humanities and Social Science, **4**(13): p. 135-141.
- [19] Spivak, G.C. (2020). *Scattered Speculations on Business and Cultural Diversity*, in *The Praxis of Diversity*. Springer. p. 199-212.
- [20] Porter, M.E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.
- [21] Morgan, N., A. Kaleka, and C. Katsikeas (2004). *Antecedents of Export Venture Performance: A Theoretical Model and Empirical Assessment*. Journal of Marketing, **68**: p. 90-108.
- [22] Ha-Brookshire, J.A. and B. Dyer (2009). *The Impact of Firm Capabilities and Competitive Advantages on Import Intermediary Performance*. Journal of Global Marketing, **22**(1): p. 5-19.
- [23] Monferrer, D., et al. (2013). *Effects of Network Market Orientation on New Ventures' International Performance*. International Journal of Business Environment, **5**(3): p. 268-298.
- [24] Charrass, A. (2016). *New Criticism on the Competitiveness Concept: A Critical Review of the Concept at the Macroeconomic Level*. International Journal of Economics and Finance, **9**(1): p. 190.
- [25] Johanson, J. and L.-G. Mattsson (2015). *Internationalisation in industrial systems—a network approach*, in *Knowledge, Networks and Power*. Springer. p. 111-132.
- [26] Ajitabh, A. and K.S. Momaya (2003). *Competitiveness of firms: review of theory, frameworks and models*.
- [27] Baltzan, P. and A. Phillips, *Business Driven Technology*. 4th ed. 2010, Boston, USA: McGraw-Hill Irwin.

- [28] Lynskey, M.J. (2004). *Determinants of innovative activity in Japanese technology-based start-up firms*. *International Small Business Journal*, **22**(2): p. 159-196.
- [29] Brown, R. and N. Lee (2017). *Seminar Series*.
- [30] Nason, R.S. and J. Wiklund (2018). *An assessment of resource-based theorizing on firm growth and suggestions for the future*. *Journal of Management*, **44**(1): p. 32-60.
- [31] Rostamkalaei, A. and M. Freel (2017). *Business advice and lending in small firms*. *Environment and Planning C: Politics and Space*, **35**(3): p. 537-555.
- [32] Samson, K.K. (2017). *Determining Whether the Institutional Conditions of a Region and the Internal Factors at the Firm-Level Influence the National Entrepreneurial Innovation in Korea*.
- [33] Tirado, D.M. and M.E. Guillén (2017). *Network Market Orientation, Knowledge Management and Born Globals' Competitiveness*, in *Knowledge Management Strategies and Applications*. InTech.
- [34] Yang, C., B. Bossink, and P. Peverelli (2017). *High-tech start-up firm survival originating from a combined use of internal resources*. *Small Business Economics*, **49**(4): p. 799-824.
- [35] Bhatt, G.D., Z. Wang, and J.A. Rodger (2017). *Information Systems Capabilities and Their Effects on Competitive Advantages: A Study of Chinese Companies*. *Information Resources Management Journal (IRMJ)*, **30**(3): p. 41-57.
- [36] Pulles, N.J., J. Veldman, and H. Schiele (2016). *Winning the competition for supplier resources: The role of preferential resource allocation from suppliers*. *International journal of operations & production management*, **36**(11): p. 1458-1481.
- [37] Lin, Y. and L.-Y. Wu (2014). *Exploring the role of dynamic capabilities in firm performance under the resource-based view framework*. *Journal of business research*, **67**(3): p. 407-413.
- [38] Schnitefeld, N.L. and T. Busch (2016). *Sustainability management within supply chains—a resource dependence view*. *Business Strategy and the Environment*, **25**(5): p. 337-354.
- [39] Asatiani, A., E. Penttinen, and A. Kumar (2019). *Uncovering the nature of the relationship between outsourcing motivations and the degree of outsourcing: An empirical study on Finnish small and medium-sized enterprises*. *Journal of Information Technology*, p. 0268396218816255.
- [40] Aspir, T., R. Gafni, and G. Gordoni (2019). *The Israeli CIO's journey—From insourcing to outsourcing and back*. *Israel Affairs*, p. 1-19.
- [41] Farr, L. and M. Lind (2019). *Motivating Language and Intent to Stay in a Backsourced Information Technology Environment*. *Journal of Global Information Management (JGIM)*, **27**(3): p. 1-18.
- [42] Gravier, M. and T. Hawkins (2019). *The Knowledge Application and Utilization Framework Applied to Defense COTS: A Research Synthesis for Outsourced Innovation*.
- [43] Hodosi, G. and L. Rusu (2019). *IT Outsourcing: Definition, Importance, Trends and Research*, in *Risks, Relationships and Success Factors in IT Outsourcing*. Springer. p. 1-9.
- [44] Al-Matari, E.M. and M.H. Mgamal (2020). *The moderating effect of internal audit on the relationship between corporate governance mechanisms and corporate performance among Saudi Arabia listed companies*. *Contaduría y Administración*, **65**: p. 1.

- [45] Karimi-Alagheband, F. and S. Rivard (2019). *Information technology outsourcing and architecture dynamic capabilities as enablers of organizational agility*. Journal of Information Technology, p. 0268396218816271.
- [46] Lioliou, E. and L.P. Willcocks (2019). *The Study of Information Technology Outsourcing*, in *Global Outsourcing Discourse*. Springer. p. 21-57.
- [47] Lioliou, E. and L.P. Willcocks (2019). *Exploring Outsourcing, Governance, and Discourse*, in *Global Outsourcing Discourse*. Springer. p. 1-19.
- [48] Paparwekorn, T., et al., *Factors That Motivate the Use of IT Outsourcing in Thailand*. n.d.
- [49] Krejcie, R.V. and D.W. Morgan (1970). *Determining sample size for research activities*. Educational and psychological measurement, **30**(3): p. 607-610.
- [50] Dutse, A. (2012). *Technological capabilities and FDI-related spillover: Evidence from manufacturing industries in Nigeria*. American International Journal of Contemporary Research, **2**(8): p. 201-211.
- [51] Ferson, S., et al. (2007). *Experimental uncertainty estimation and statistics for data having interval uncertainty*. Sandia National Laboratories, Report SAND2007-0939. **162**.
- [52] Comfrey, A. and H. Lee (1992). *A first course in factor analysis*. Hillsdale, NJ: Lawrence Erlbaum.
- [53] Hair, J.F., et al. (1995). *Multivariate data analyses with readings*. Englewood Cliffs, New Jersey.
- [54] Hinton, P., et al., *SPSS Explained*. New, Tork. 2004, USA: Routledge Taylor & Francis Group.
- [55] Tabachnick, B.G. and L.S. Fidell (2001). *Computer-assisted research design and analysis*. Vol. 748. Allyn and Bacon Boston.
- [56] Gujarati, D. (2004). *Basic Econometrics*. (4<sup>th</sup> edtn) The McGraw" Hill Companies.
- [57] Hair, J., et al., *Multivariate data analysis: A global perspective (Vol. 7): Pearson Upper Saddle River*. 2010, NJ.
- [58] Kothari, C.R. (2004). *Research methodology: Methods and techniques*: New Age International.
- [59] Tabachnick, B.G. and L.S. Fidell, *Experimental designs using ANOVA*. 2007: Thomson/Brooks/Cole Belmont, CA.
- [60] Zikmund, W.G., et al., *Business research methods (ed.)*. Thomson/South-Western, Cincinnati, OH, 2003.