Gusau Journal of Economics and Development Studies (GUJEDS), Vol 5 (1), May, 2024
ISSN: 3027-1126 (Online); 2786-9695 (Online)
©Authors

GUSAU JOURNAL OF ECONOMICS AND DEVELOPMENT STUDIES (GUJEDS)

A Bi-annual Publication of the Department of Economics, Federal University Gusau, Zamfara State - Nigeria

Vol. 5 (1) May 2024

©Gusau Journal of Economics and Development Studies (GUJEDS), 2024

Copy rights:
This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author(s) and source are credited. Authors retail copyright.

To view a copy of this license, visit https://creativecommons.org/licenses/by/4.0/

ISSN: 2786-9695

Published by:
Department of Economics,
Federal University Gusau,
Zamfara State – Nigeria

Printed by:
Ahmadu Bello University Press Limited, Zaria,
Kaduna State, Nigeria. Tel.: 08065949711
E-mail: abupress2020@yhoo.com
abupress2013@gmail.com
Website: www.abupress.com.ng

Note:
The articles published in this journal do not in any way reflect the views or position of the GUJEDS. Author are individually responsible for all issues relating to their articles. GUJEDS is an open access journal. This means that authors retain all copyrights.

©Authors

EDITORIAL BOARD

Editor-in-Chief
Prof. Badeyi M. Sani
HOD, Department of Economics,
Bayero University, Kano

Associate Editor-in-Chief
Prof. Yahya Zakari Abdullahi
V.C. Zamfara State University,
Zamfara State

Assistant Editor-in-Chief I
Prof. Aliyu Sunusi Rafindadi
HOD, Economics Department,
ABU, Zaria Kaduna State.

Assistant Editor-in-Chief II
Prof. M. C. Duru
Department of Economics,
ABU, Zaria Kaduna State.

Managing Editor
Dr. Mutiu Abdulganiyu
Department of Economics,
Federal University, Gusau
Zamfara State

EDITORIAL ADVISER
Dr. Suleiman Dahiru
Department of Economics,
ABU, Zaria Kaduna State.

Dr. Mustapha Muhammad Abdullahi
HOD, Department of Economics,
Federal University, Gusau
Zamfara State

©Authors

REVIEWER BOARD

Prof. M. C. Duru
Department of Economics,
ABU, Zaria Kaduna State.

Dr. Suleiman Dahiru
Department of Economics,
ABU, Zaria Kaduna State.

Dr. Shehu Usman Adamu
Department of Economics,
University of Maiduguri, Borno State

Dr. Kabiru Ibrahim Maji
Department of Economics,
Army University Biu, Borno State

Dr. Bashir Umar Faruk
Dean, Faculty of Management and Social Science,
Federal University, Gusau
Zamfara State

Dr. Abdullahi Badaru
Economics Department,
Federal University, Dust-ma
Kastina State

Dr. Mutiu Abdulganiyu
Department of Economics,
Federal University, Gusau
Zamfara State

Dr. Mustapha Muhammad Abdullahi
HOD, Department of Economics,
Federal University, Gusau
Zamfara State

Dr. Hussaini Dambo
Department of Economics,
Federal University, Gusau
Zamfara State.

©Authors

Dr. Taofik M. Ibrahim
Department of Economics,
ABU, Zaria Kaduna State.

Dr. Jamaldeen Abubakar
Research Department,
Central Bank of Nigeria
Abuja

Dr. Adam Usman Abubakar
Department of Economics,
ABU, Zaria Kaduna State.

©Authors

CALL FOR PAPERS

The editorial board of Gusau Journal of Economics and Development Studies (GUJEDS) is hereby inviting authors to submit their unpublished manuscript for publication. The journal is published in two issues of May and November annually. GUJEDS is a double-blind peer reviewed journal published by the Department of Economics, Faculty of Management and Social Sciences, Federal University Gusau, Zamfara State Nigeria The Journal accepts contribution from scholars, academics, Researchers on wild range of issues related to monetary/fiscal policy, Economic growth and Development, Energy and Environmental and other related Economics Issues.

GUIDELINES FOR SUBMISSION AND MANUSCRIPT FORMAT

The submission language is English and must be a well-researched original manuscript that has not previously been submitted elsewhere for publication. The paper should not exceed more than 15 pages on A4 type paper in MS-word format, 1.5-line spacing, 12 Font size in Times new roman. Manuscript should be tested -for plagiarism before submission, as the maximum similarity index acceptable by GUJEDS is 25 percent. Furthermore, the length of a complete article should not exceed 5000 words including an abstract of not more than 250 words with a minimum of four key words-immediately after the abstract. All references including in text citation and reference list, tables and figures should be in line with APA 7th Edition publication manual. Finally, manuscript should be send to our email address gjedsfugus@gmail.com

PUBLICATION PROCEDURE

After receiving a manuscript that is within the similarity index threshold, a confirmation email will be send together with a request to pay a review proceeding fee. At this point, the editorial board will take a decision on accepting, rejecting or making a resubmission of the manuscript based on the outcome of the double-blind peer review. Those authors whose manuscript were accepted for publication will be asked to pay a publication fee, after effecting all suggested corrections and changes made on the manuscript. All corrected papers returned within the specified time frame will be published in that issue.

PAYMENT DETAILS

Bank: Zenith Bank
Account Number: 1214203858
Account Name: Gusau Journal of Economics and Development Studies

FOR INQUIRY
The Managing Editor
Department of Economics
Federal University Gusau, Zamfara State.
gjedsfugus@gmail.com
+2348134539669

Gusau Journal of Economics and Development Studies (GUJEDS), Vol 5 (1), May, 2024
ISSN: 3027-1126 (Online); 2786-9695 (Online)
©Authors
DOI: https://doi.org/10.57233/gujeds.v5i1.16

ROLE OF TECHNOLOGICAL ORIENTATION ON EFFECT OF INTELLECTUAL CAPITAL ON SMALL AND MEDIUM ENTERPRISES (SMES) PERFORMANCE

Jimmy Ahwoh Equensen
Department of Business Administration, ABU Business School, Ahmadu Bello University, Zaria
ogajimmy1@yahoo.com

Dr. Ismail Tijjani Idris
Department of Finance, ABU Business School, Ahmadu Bello University, Zaria
ismaildel@yahoo.com

Prof. O. D. Y. Malachy
Department of Business Administration, ABU Business School, Ahmadu Bello University, Zaria
malaolowu@gmail.com

ABSTRACT

Most SMEs in Nigeria die within their first five years of existence, a smaller percentage goes into extinction between the sixth and tenth year while only about five to ten percent survive, thrive and grow to maturity, the death of the businesses was largely caused by inadequate intellectual capital and technological orientation. The objective of the study is to examine the relationship between intellectual capital and SMEs performance with the moderating role of technological orientation. The study obtained data through a survey questionnaire. The researcher employed Statistical Package for the Social Sciences (SPSS) version 18 for preliminary analyses. For main analysis, the study employed partial least squares (PLS) path modelling. The findings of the study revealed that intellectual Capital has significant effect on Small and Medium Enterprises (SMEs) performance, technological orientation significantly moderate the relationship between intellectual capital and Small and Medium Enterprises (SMEs) performance. The study recommended that Owner/managers of SMEs should possess technical, interpersonal, and conceptual skills to effectively plan, lead, organize and control the enterprise effectively leading to increased performance. The study concluded that intellectual capital has significant effect on SMEs performance and technological orientation significantly moderates the relationship between intellectual capital and SMEs performance.

Keyword: intellectual capital, technological orientation and SMEs performance

INTRODUCTION

The performance of SMEs is an important area of study to most researchers because the important role played by small and medium enterprises (SMEs) in economic and social development of many countries has continued to grow in recent decades. SMEs are the major contributor to the national economic development and also a major source of the employment generation (Abu Zayyad, 2020). In the developing nation's cases, the role of SMEs is further magnified and boosted because the development of the country is not only built on the shoulder of Multinational Enterprises (MNEs).

In Ghana SMEs constitute about 90% of total business units in Ghana and account of 60% of Ghana's employed labour force and 63% of the GDP (Saengon, 2020). They are often described as efficient and prolific job creators, the seeds of big businesses and the fuel of national economic engines. In china, SMEs provide around 80% of urban employment, contribute 50% of tax revenue, account for 60% of GDP in China (National Bureau of Statistics of China, 2017). SMEs contribute 75% *of Germany's gross domestic product (GDP)* (Schott, 2016). SMEs play a vital role in the economy of the United States, they produced 46 percent of the private nonfarm GDP (Abuhashesh, Al-Dmour, & Masa'deh, 2019).

However, in Nigeria, the statistical report by Small and Medium Enterprises Development Association of Nigeria (SMEDAN) (2017) and National Bureau of Statistics (NBS) (2017) revealed that SMEs contribute 46.41% to the GDP and 30% employment ratio (SMEDAN 2017), this shows that SMEs in Nigeria are not performing up to expectation.

Studies on the effect of intellectual capital on SMEs performance have been inconsistent, for example, a study conducted by Abuhashesh, & Al-Khasawneh (2019) has documented negative relationship while other studies such as (Akhtar, Ismail, Hussain, and Umair-ur-Rehman, 2015) documented posttive relationship between intellectual capital and SMEs perfromance. It is on the basis of these differences in results and the recommendation of Salloum, (2020) and Baron and Kenny (1986) that this study integrated a moderator which is technological orinetation.

LITERATURE REVIEW

This section presents literature review and theoretical framework related to the purpose of this study. It involves assessing, defining, examining and reviewing existing

related literatures relevant to technological orientation, intellectual capital and SMEs performance. In the course of this study, several materials were consulted published and unpublished.

Concept of performance

Performance is considered as an umbrella term for all concepts that consider the success of a firm and its activities (Anwar, 2018). Performance can refer to actual results/outputs of certain activities, how an activity is carried out, or an ability to achieve results (Cleary and Quinn 2016). Kantur (2016) defined performance as the achievement of results ensuring the delivery of desirable outcomes for a firm' s stakeholders. There are two basic types of performance measurement in any organization: those that are related to results such competitiveness, financial performance, growth and those that focus on the determinants of the results, such as quality, flexibility, resource utilization (Kantur et al., 2016). In this research, performance refers to results. A firm's performance is divided into two main areas: operational performance and financial performance. Financial performance is related to the actual results, ex profitability, growth, turnover etc., and operational performance to the determinants of the results such as agility, flexibility, productivity, quality, etc. the study utilized non-financial measure of performance.

Concept of Intellectual Capital

Intellectual Capital (IC) is the collective knowledge of the firm such as technologies, information, skills, intellectual property, expertise, team management, customer loyalty, and intellectual power which can be used to generate value for the products and services in the organizations (Capozza, & Divella, 2019; Chamidah, Guntoro, & Sulastri, 2020). Identifying valuing reporting and managing IC plays a crucial role in the current ever-challenging and aggressive business environment for sustainable performance (Rowlinson et al., 2016). In 21st century, organizations cannot survive without Knowledge assets. Most of the researcher considers the intellectual capital (IC) as the backbone of knowledge-based economy. Therefore, only those organizations will stay alive who

have knowledgeable workers and abilities to explore or utilize their IC effectively.

Concept of Technological Orientation

Technology orientation as a strategic orientation is a culture-based, firm-specific and consisting of complex capabilities that fitting with RBV of the firm (Tarhini, 2017). Built upon RBV of the firm (Masa'deh, and Aqqad, 2017), a corporate/business level culture-based strategic orientation which composed of hard to imitate, hard to substitute, rare and valuable capabilities may provide competitiveness and superior performance as expected from a strategic orientation. In order to be competitive and to make above average returns, an organization requires a wide range of capabilities (Khalique, Bontis, Shaari, and Isa, 2015). However, prioritization and a right combination of capabilities which are parallel to strategic direction can provide sustainable competitive position. Therefore, a combination of capabilities and skills were decided to consider as the dimensions of a technology orientation. In this direction, top management capability, technological capability, learning and unlearning were proposed as the dimensions of such a culture-based primary strategy. These capabilities and skills are indeed interconnected with each other.

Review of Empirical Literature

Asiaei, (2014) used questionnaire to survey Malaysian firms in order to determine the relationship between intellectual capital on organizational performance. the study found that intellectual capital impact on organizational performance. The study considered only large scale firms and neglecting SMEs which contribute to economic growth, job creation and global competitiveness of the economy as a whole.

Kariuki, Obonyo & Ogutu, (2014) conducted a comparative study on SMEs operating in Malaysia and Pakistan, the study found that intellectual capital has significance impact on the performance of SMEs in both the countries. Khalique and Isa, (2014) conducted a study in Iran with 39 insurance companies selected as the sample and revealed that value added intellectual capital and its components have a significant positive relationship with companies' profitability. The study concentrated on Malaysia and Pakistan, the study neglect other countries SMEs. Also the study dwelt on insurance companies only and neglecting other SMEs sub-sector.

In addition, Pal and Soriya, Khalique, & Samad, (2013) conducted studies on and concluded that intellectual capital has

major role to enhance the SMEs performance. Leaniz and Bosque (2013) conducted a study in Spain with a sample of 400 Spanish consumers and concluded that economic, social and environmental domains of sustainability have a positive direct effect on SMEs performance. Additionally, this study showed that intellectual capital is considered to be the most important factor that enhance SMEs performance. The study does not consider other dimension of intellectual capital i.e technological capital, spiritual capital, customer capital.

Ng and Wong, (2011) carried out a survey on intellectual capital and SMEs performance with specific emphasis on spiritual capital. The survey involves the executives to assistant general manager levels working at various departments at the 14 states business areas and headquarters level and the interviewees are from the general manager to senior vice-president and CEO. Statistical techniques such as means of variance, factor analysis, ANOVA test, regression analysis, path analysis and narrative passages are used in analysing the data. The study indicates that a positive significant relationship between spiritual capital and SMEs performance. By having a stronger spiritual capital within the higher management to manage and leverage the present intellectual capital SMEs business can do better. The study only concerns with spiritual capital. Other forms of intellectual capital such as human capital, structural capital, relational capital, technological capital, customer capital & social capital were neglected.

Emadzadeh, (2013) provided evidence with regard to impact of intellectual capital on SMEs performance in manufacturing industry. The study constructed a theoretical model which proposed the causal link between all three dimensions of intellectual capital i.e. human capital, structural capital and customer capital. The study found that customer capital is found to have significant association with SMEs performance. The study was only concern with manufacturing company, extending the study to other industry is a knowledge gap that can be cover by future research.

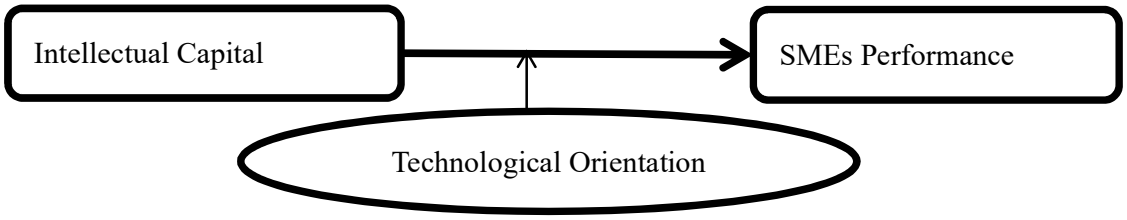
Theoretical Framework

Knowledge Based View (KBV)

The knowledge-based theory of the firm considers knowledge as the most strategically significant resource of a firm. Its proponents argue that because knowledge-based resources are usually difficult to imitate and socially complex, heterogeneous knowledge bases and capabilities among firms are the major

determinants of sustained competitive advantage and superior corporate performance. The assumption of the resource-based view theory is that resources and capabilities are not easily transferable between firms and that organizations have different resources and capabilities even within the same industry.

Research Framework



The model represents the framework of the study. The independent variables are Intellectual Capital predicting the dependent variable SMEs performance, technological orientation serve as the moderator for the study.

RESEARCH METHODOLOGY

This section explains the types of research method and types of data collection used in carrying out the work of this project. The data contains the research design, population of the study, sample size and sampling techniques, sources of data and method of data collection, techniques of data analysis and justification for the research method used.

This study will utilize cross-sectional survey research design. The population of the study comprises of four hundred and fifty-seven (457) SMEs (SMEDAN, 2022). This are SMEs operating their businesses within Kaduna State and are registered with SMEDAN as at November, 2022. The population will be distributed according to local government area. Owner and/or manager were selected because of their knowledge and familiarity with the running of their own establishment. The choice of this group of SMEs was as a result of their registration with the relevant authorities. As such, they are well organized with registered office addresses and full time employees.

The sample size will be determine using Krejcie and Morgan (1970), because of large population, in most studies researchers hardly study the entire population. Therefore, sample is always drawn from the population. The sample size

drawn from the population is 210 using Krejcie and Morgan (1970).

However, in order to take care of response bias and improper filling of some respondents to return the questionnaire, 30% of the above minimum sample size was added as suggested by Israel (2013). 63 respondents which is the 30% of the sample size will be added to the calculated sample size of 210 which brings it to 273 questionnaires administered across the State. In order to locate the sample out of the population, the researcher adopted simple random sampling technique.

Primary source of data will be use in the study to examine the moderating role of technological orientation on the effect of intellectual capital on SMEs performance. Primary data was obtained through the use of questionnaire.

The study will employ the Smart PLS 3.0 in other to compute the two basic model of PLS path modelling which includes measurement model and structural model (Al-Dhuhouri, 2020). Some of the reasons for the use of PLS are: places a very flexible restriction in respect distribution and population of the study (Alkitbi, *et al.,* 2020) and also has the possibility of providing a more reliable and accurate computations of moderating effect because its accounts for error that is capable of reducing the possible relationship as well as the improvement of the validation of the theory (Salloum, *et al.,* 2020). In using PLS_SEM, there are basically two models, the measurement (outer) model and the structural (inner) model. For the moderator measurement model will also be used to analyze the data.

RESULTS AND DISCUSSION

This section contains data analysis and presentation according to questionnaire administration. The study employs Partial Least Square (PLS) 3 for the data analysis.

Table 4.1: *Response Rate of the Questio*nnaires

Questionnaire	**Frequency**	**Rate (%)**
Questionnaires distributed	531	100
Questionnaires returned	418	78.7
Questionnaires not returned	113	21.3
Questionnaires invalid	27	5.1
Usable questionnaires	391	73.6

A total of 531 questionnaires were administered of which 113 questionnaires were not returned, 27 questionnaires was rejected. The analysis was based on the valid questionnaire of 391.

Preliminary Analysis and Data Cleansing

The first stage in performing preliminary analysis is to code data and enter the data into a particular data file. The study utilized SPSS for coding and entering the data. This is to ensure minimal distortion that possibly can be caused by inaccurate data. The data were screened for missing values, detection of outlier, Multicollinearity and normality test were also determined. A total of 531 questionnaires were administered of which 113 questionnaires were not returned, 27 questionnaires was rejected. The analysis was based on the valid questionnaire of 391.

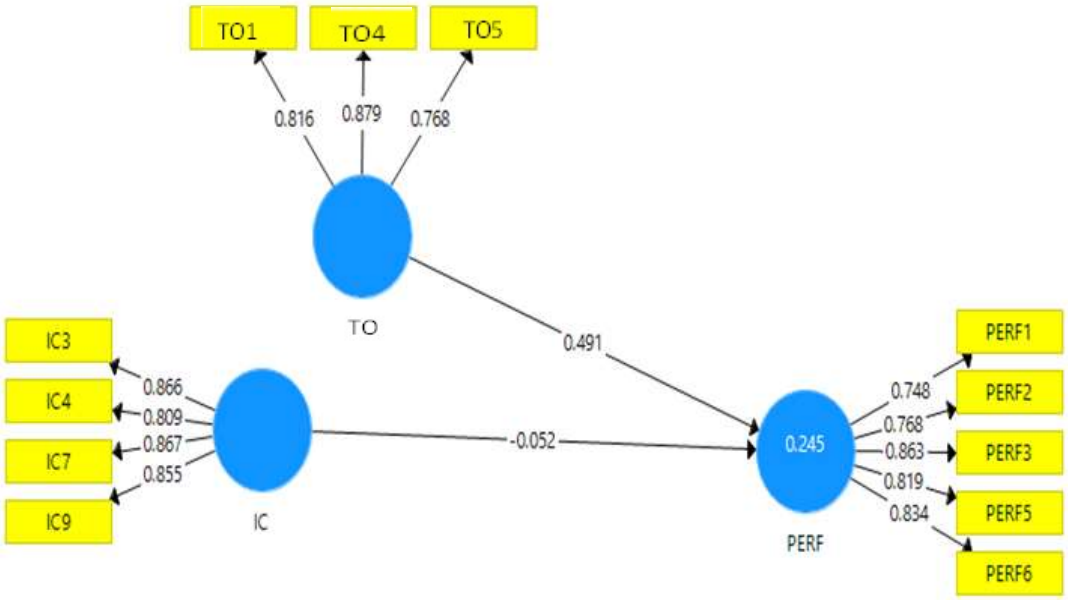
Preliminary data screening is very essential in performing multivariate analysis because it assists any researcher to detect any possible violations of the vital assumptions concerning the use of multivariate methods of data analysis (Hair, Hult, Ringle & Sarstedt, 2017). Moreover, it helps researchers to better understand the data collected for further analysis. Thus, following data coding and entry, the preliminary data analyses were conducted using SPSS Statistics software version 23. This includes; the analysis of the missing values, analysis of outliers, test of normality of distribution of data and test of multicollinearity.

Partial Least Square Structural Equation Modelling (PLS-SEM)

The present study adopted a two-step process to evaluate and report the results of PLS-SEM path, as suggested by Henseler, Ringle and Sinkovics (2009). This two-step process adopted in the present study comprises the measurement model and the structural model (Hair et al., 2017). Furthermore, having subjected the data to the screening stage and cleansed the data, the data is therefore ready for path modelling. Smart PLS 3.0 was employed to assess the measurement model and structural model for model fit and test of hypotheses.

Measurement Model (outer model)

Analysis of a measurement model was as follows



Structural model (Inner model)

The second part of the model is the structural model or inner model which Hair, *et al*. (2017) identified four key criteria for analysis.

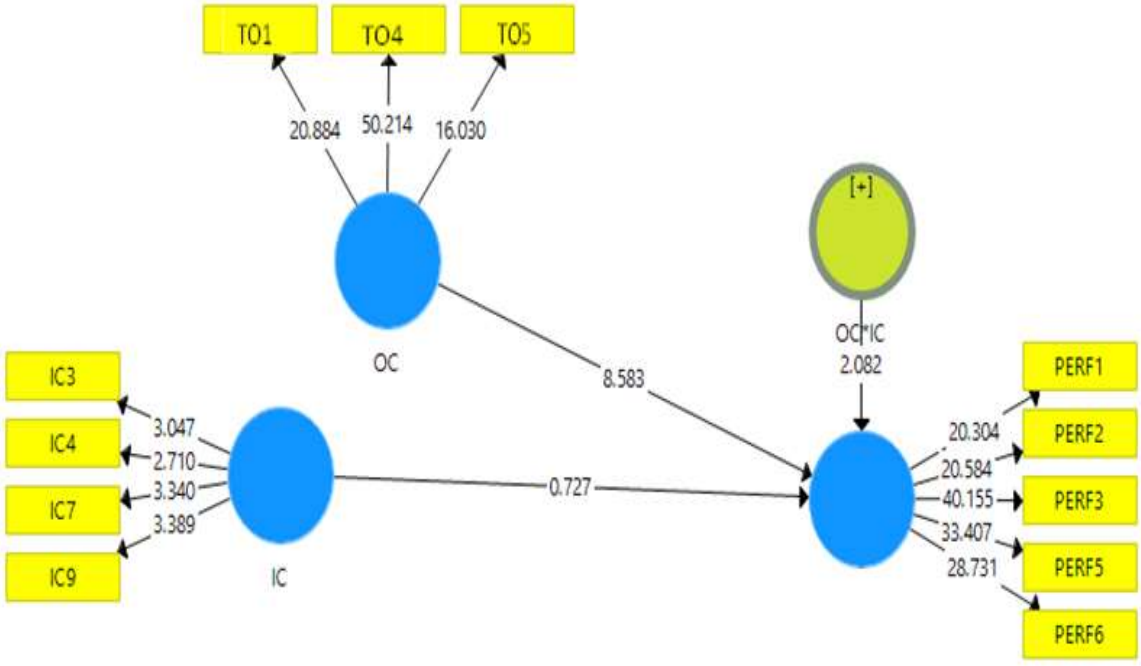


Figure 4.2: *Structural model*

Path coefficient for direct relationship

This section presents the structural model results in which both the direct as well as the moderating hypotheses were analysed. This is related to evaluating the predictive power of external models and the relationship between their constructs. The moderation analysis was performed using the PLS three stage approach in order to estimate and detect the interaction effects involving a continuous predictor and moderator variable (Hair, *et al.,* 2017). According to Hair *et al.* (2017), the test for moderation involved testing for the main effects of the independent constructs on the dependent constructs to obtain the latent variables scores; then the multiplication of latent variable scores of the independent constructs and moderator construct to form one item used to measure the interaction term. The moderating effect therefore occurs only if these terms of interaction are significant (Hair *et al.,* 2017). The table above present the results of path coefficient of the study.

Table 4.2: Path coefficient of the structural model

Hypotheses	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Decision
IC -> PERF	0.072	0.062	0.099	0.727	0.467	Fail to reject
TO*IC -> PERF	0.315	0.205	0.151	2.082	0.037	Rejected

Table 4.3 presented the results of the test of hypotheses. Intellectual Capital has significant effect on Small and Medium Enterprises (SMEs) performance (Beta value = 0.031, t-value = 0.289 & p value =0.003). Also, Technological Orientation significantly moderate the relationship between intellectual capital and Small and Medium Enterprises (SMEs) performance (Beta value = 0.310, t-value = 0.019 & p value =0.019).

Summary of Findings

The findings of the study revealed that intellectual Capital has no significant effect on Small and Medium Enterprises (SMEs) performance, technological orientation significantly moderate the relationship

between intellectual capital and Small and Medium Enterprises (SMEs) performance.

5.1 CONCLUSION AND RECOMMENDATIONS

Conclusion

The study concluded that intellectual Capital does not has significant effect on Small and Medium Enterprises (SMEs) performance. This implies that the more employees improve on their capabilities and competence, the more the performance of the SMEs. Intellectual capital is considered an important resource for SMEs. SMEs success is driven by the knowledge, experience and skills possessed by the owners and employees. Although most SMEs have considerable resource limitations in terms of land, labour and finance, these firms have considerable knowledge represented in know-how, expertise, tradecrafts, skills, ideas, intuition and insights. Technological orientation significantly moderates the relationship between intellectual capital and Small and Medium Enterprises (SMEs) performance.

The implication of the study is that the results of the study will enhance management of SMEs and other firms to understand how they can exploit intellectual capital to create value and hence improved performance. The results of the study would assist government and institutions both public and private to develop and implement human resource policies that are tailor-made to enhance performance.

Recommendations

Based on the findings of this study, the following recommendations were made:
Overall, this study documents a significant impact of intellectual capital on SMEs performance. Owner/managers of SMEs should possess technical, interpersonal, and conceptual skills to effectively plan, lead, organize and control the enterprise effectively leading to increased performance.
The organization must exhibit a high level of technological orientation. Organizations should prepare a comprehensive and integrated system of performance management for building the employee commitment. Training and development programs should be designed in such a way that it will enable employees to gain knowledge and skill for present job and for the next higher job as well.

Limitations of the Study

Despite the enormous contribution of this study, several limitations must be taken into cognizance. However, such limitations may also offer avenues for future research.

Also, collecting data at a single point in time (cross sectional) also raises the question of common method variance. Subsequent research on this topic should use a longitudinal approach to address these issues.

Data was collected from SMEs in Kaduna State. As a result, the findings of the study may not be extended beyond Kaduna State. Data was only collected from SMEs in Kaduna State, other states in Nigeria were not considered.

The data of this study were collected through questionnaire only. Therefore, voluntary cooperation of the respondents determines the accuracy of the feedback. For example, the accuracy of the study might have been affected by dishonesty of the respondents in trying to project a good image of the business; this is however beyond the researchers' ability to ascertain.

Suggestions for Further Study

The need to develop a better understanding of the results suggests avenues for future research that are worthwhile. This study could be replicated by covering a larger geographical area, so that generalisations can be made. Other moderators and mediators can be included in the model for further theoretical contributions. The study could be replicated in other sectors of the economy other than the SMEs. A comparative study can be carried out on other SMEs.

Future studies should take into account more respondents to avoid potential biases that arise from key informant methodology. The study population was small, and it would be appropriate that future studies should include more respondents or study different settings like large organization/firm.

Reference

Abu Zayyad, Z.. (2020). Corporate social responsibility and patronage intentions: the mediating effect of brand credibility. *Journal of Marketing Communications, Forthcoming. 19(1) 20-33*

Abuhashesh, M., Al-Dmour, R., & Masa'deh, R. (2019). Factors that affect employees job satisfaction and performance to increase customers' satisfactions. *Journal of Human Resources Management Research. 14(1), 224-247.*

Abuhashesh, M., & Al-Khasawneh, M., (2019). The impact of Facebook on Jordanian con-sumers' decision process in the hotel selection. *IBIMA Business Review. 2(2) 45-99.*

Abuhashesh, M., Mohammad, S.J., & Al Khasawneh, M. (2019). The attitude of Jordanian customers towards virtual stores. *International Journal of Islamic Marketing and Branding, 4(1), 59-75.*

Aga, G. A., Francis, D., & Rodriguez-Meza, J. (2016). SMEs, age, and jobs: *A review of the literature, metrics, and evidence. 5 (1), 88-95.*

Agostini, L., Nosella, A., & Filippini, R. (2017). Does intellectual capital allow improving innovation performance. A quantitative analysis in the SME context. *Journal of Intellectual Capital, 18(2), 400-418.*

Agostini, L., Nosella, A., & Filippini, R. (2017). Does intellectual capital allow improving innovation performance? A quantitative analysis in the SME context. *Journal of Intellectual Capital, 18(2), 400-418.*

Ahmad, M. (2016). Testing the relationship between intellectual capital and a firm's performance: An empirical investigation regarding financial industries of Pakistan. *International Journal of Learning and Intellectual Capital, 13(2-3), 250-272.*

Akhtar, C. S., Ismail, K., Hussain, J., & Umair-ur-Rehman, M. (2015). Investigating the moderating effect of family on the relationship between entrepreneurial orientation and success of enterprise: Case of Pakistani manufacturing SMEs. *International Journal of Entrepreneurship and Small Business, 26(2), 233-247.*

Al Khayyal, A. O., Alshurideh, M., Al Kurdi, B., & Salloum, S. A. (2020). Women empowerment in UAE: A systematic review. *In International Conference on Advanced Intelligent Systems and Informatics. Springer, Cham. 6(5), 46-52.*

Alshurideh, M., & Alnaser, A. (2020). The impact of employee satisfaction on customer satisfaction: Theoretical and empirical underpinning. *Management Science Letters, 10(15), 3561-3570.*

Al Suwaidi, F., (2019). The impact of innovation management in SMEs performance: A systematic review. *In International Conference on Advanced Intelligent Systems and Informatics. 8(6), 720-730.*

Albrechts, L., Balducci, A., & Hillier, J. (Eds.). (2016). Situated practices of strategic planning: *An international perspective. Routledge. 8(1), 7-12.*

Aldaas, A., (2019). Successful implementation of corporate governance mechanisms in banks. *Journal of Social Sciences (COES&RJ-JSS), 8(4), 692-710.*

Al-Dhuhouri, F. S., Alshurideh, M., Al Kurdi, B., & Salloum, S. A. (2020). Enhancing our understanding of the relationship between leadership, team characteristics, emotional intelligence and their effect on team performance: *A Critical Review. In International Conference on Advanced Intelligent Systems and Informatics. 5(6), 644-655.*

Al-Kilani, B. M. (2019). Strategic Planning in Higher Education in the Arab World: Toward an Effective Implementation to Overcome Challenges. *In Strategic Thinking, Planning, and Management Practice in the Arab World. 5(4), 250-274.*

Alkitbi, S. S., Alshurideh, M., Al Kurdi, B., & Salloum, S. A. (2020). Factors affect

customer retention: A sys-tematic review. *In International Conference on Advanced Intelligent Systems and Informatics. 1(8), 656-667.*

AlQershi, N., Abas, Z., & Mokhtar, S. (2020). The intervening effect of structural capital on the relationship between stra-tegic innovation and manufacturing SMEs' performance in Yemen. *Management Science Letters, 11(1), 21-30.*

Alrowwad, A., Masa'deh, R., & Abualoush, S.H. (2020). Innovation and intellectual capital as intermediary variables among transformational leadership, transactional leadership, and organizational performance. *Journal of Management Development, 39(2), 196-222.*

Alshamsi, A., Alshurideh, M., Al Kurdi, B., & Salloum, S. A. (2020). The influence of service quality on cus-tomer retention: A systematic review in the higher education. *In International Conference on Advanced Intelligent Systems and Informatics. 6(4), 404-416).*

Salloum, S. A. (2020). The impact of ethical leadership on em-ployees performance: A systematic review. *In International Conference on Advanced Intelligent Systems and Informatics. 9(3), 417-426.*

Alshurideh, D. M. (2019). Do electronic loyalty programs still drive customer choice and repeat purchase behaviour. *International Journal of Electronic Customer Relationship Management, 12(1), 40-57.*

Alshurideh, M., Gasaymeh, A., Ahmed, G., Alzoubi, H., & Kurd, B. (2020). Loyalty program effectiveness: Theoretical reviews and practical proofs. *Uncertain Supply Chain Management, 8(3), 599-612.*

Alsuwaidi, M., Alshurideh, M., Al Kurdi, B., & Salloum, S. A. (2020). Performance appraisal on employees' motivation: A comprehensive analysis. *In International Conference on Advanced Intelligent Systems and Informatics 6(1), 681-693.*

Alyammahi, A., (2020). The impacts of communication ethics on workplace decision making and productivity. *In International Conference on Advanced Intelligent Systems and Informatics. 5(3), 488-500.*

Ansoff, H.I. (2017). Strategic management. *Journal of Management Research,* 5.

Becker, J.M., Klein, K., & Wetzels, M. (2012). Hierarchical latent variable models in PLS-SEM: Guidelines for using reflective-formative type models. *Long Range Planning, 45(6), 359-394.*

Anwar, M. (2018). Business model innovation and SMEs performance - Does competitive advantage mediate. *International Journal of Innovation Management. 11(4), 385-403.*

Arnaout, B., & Esposito, M. (2018). The value of communication in turbulent environments: How SMEs manage change successfully in unstable surroundings. *International Journal of Entrepreneurship and Small Business, 34(4), 500-515.*

Aziz, N. N. A., & Samad, S. (2016). Innovation and competitive advantage: Moderating effects of SMEs in foods manufacturing SMEs in Malaysia. *Procedia Economics and Finance, 35(2016), 256-66.*

Bemby S., Mukhtaruddin, B.., Hakiki, A., & Ferdianti, R. (2015). Intellectual capital, firm value and ownership structure as moderating variable: Empirical study on banking listed in Indonesia stock exchange period. *Asian Social Science, 11(16), 148-159*.

Bilal, A.R., Khan, A.A., & Akoorie, M.E.M. (2016). Constraints to growth: A cross country analysis of Chinese, Indian and Pakistani SMEs. *Chinese Management Studies, 10(2), 365.*

Boh, W. F., Huang, C. J., & Wu, A. (2020). Investor experience and innovation performance: The mediating role of exter-nal cooperation. *Strategic Management Journal, 41(1), 124-151.*

Capozza, C., & Divella, M. (2019). Human capital and firms' innovation: evidence from emerging economies. *Economics of Innovation and New Technology, 28(7), 741-757.*

Chamidah, N., Guntoro, B., & Sulastri, E. (2020). Marketing communication and synergy of Pentahelix strategy on satisfaction and sustainable tourism. *Journal of Asian Finance, Economics and Business, 7(3), 177-190.*

Chege, S. M., & Wang, D. (2020). The influence of technology innovation on SME performance through environmental sustainability practices in Kenya. *Technology in Society. 4(13), 60-71.*

Cleary, P., & Quinn, M. (2016). Intellectual capital and business performance: An exploratory study of the impact of cloud-based accounting and finance infrastructure. *Journal of Intellectual Capital, 17(2), 255-278.*

Donkor, J., Donkor, G. N. A., & Kwarteng, C. K. (2018). Strategic planning and performance of SMEs in Ghana. *Asia Pacific Journal of Innovation and Entrepreneurship. 19(7), 1187-1207.*

Dundon, T., & Wilkinson, A. (2018). HRM in small and mediumsized enterprises (SMEs). *In Human Resource Management. Routledge. 1(25), 107–136.*

Rowlinson, S. (2016). Intellectual capital and innovation in construction organizations: A conceptual framework. *In the Engineering Project Organization Conference. 16(1), 88-90.*

Ferreira, J., Coelho, A., & Moutinho, L. (2018). Dynamic capabilities, creativity, and marketing capability and their impact on competitive advantage and firm performance: *The moderating role of entrepreneurial orientation. Technovation, 2(2), 92-93.*

Hair, J.F.J., Hult, G.T.M., Ringle, C., & Sarstedt, M. (2016). A primer on partial least squares structural equation modeling (PLS-SEM). *4(6), 1103-1106.*

Harram, A., & Fozia, M. (2015). Customer Oriented marketing capabilities and

firm performance mediated by new product development capabilities and moderated by environmental. *International Journal of Economics & Management Sciences, 4(9), 17-33.*

Harris, R., & Moffat, J. (2013). Intangible assets, absorbing knowledge and its impact on firm performance: Theory, measurement and policy implications. *Contemporary Social Science, 8(3), 346-361.*

Hejazi, R., Ghanbari, M., & Alipour, M. (2016). Intellectual, Human and Structural Capital Effects on Firm Performance as Measured by Tobin's Q. *Knowledge and Process Management, 23(4), 259-273.*

Henderson, A. E., & Hines, R. D. (2019). Using Concepts from Strategic Planning. Data Strategy in Colleges and Universities: *From Understanding to Implementation. 2(5), 46-52.*

Herrera, M. E. B. (2015). Creating competitive advantage by institutionalizing corporate social innovation. *Journal of Business Research, 68(7), 1468-1474.*

Hery Pratono, A., & Mahmood, R. (2014). The moderating effect of environmental turbulence in the relationship between entrepreneurial management and firm performance. *Universal Journal of Management, 2(7), 285- 292.*

Herzallah, A. M., Gutiérrez-Gutiérrez, L., & Munoz Rosas, J. F. (2014). Total quality management practices, competitive strategies and financial performance: The case of the Palestinian industrial SMEs. *Total Quality Management & Business Excellence, 25(5-6), 635-649.*

Hsu, L.C., & Wang, C.H. (2012). Clarifying the effect of intellectual capital on performance: The mediating role of dynamic capability. *British Journal of Management, 23(2), 179-205.*

Hughes, P., Hodgkinson, I.R., Hughes, M., & Arshad, D. (2017). Explaining the entrepreneurial orientation performance relationship in emerging economies: The intermediate roles of absorptive capacity and improvisation. *Asia Pacific Journal of Management, 1-29.*

Hwang, W. S., Choi, H., & Shin, J. (2020). A mediating role of innovation capability between entrepreneurial competencies and competitive advantage. *Technology Analysis & Strategic Management, 32(1), 1-14.*

Irfan, S.M., Kee, D.M.H., Qureshi, R.W., & Hussain, R. (2014). Measuring performance of SMEs in Pakistan using Pls-SEM: *Evaluating MBNQA criteria as TQM Framework. Science International, 26(4), 1707-1718.*

Jain, P., Vyas, V., & Roy, A. (2017). Exploring the mediating role of intellectual capital and competitive advantage on the relation between CSR and financial performance in SMEs. *Social Responsibility Journal, 13(1).*

Jalali, A., Jaafar, M., & Ramayah, T. (2014). Entrepreneurial orientation and performance: The interaction effect of customer capital. *World Journal of*

Entrepreneurship, Management and Sustainable Development, 10(1), 48-68.

Kanaan, R.K., Obeidat, B.Y., Al-Zu'bi, M.O., & Abuhashesh, M. (2020). The effect of intellectual capital on competitive advantage in the Jordanian Telecommunication Sector. *Journal of Business & Management (COES&RJ-JBM), 8(1), 1-19.*

Kantur, D. (2016). Strategic entrepreneurship: mediating the entrepreneurial orientation-performance link. *Management Decision, 54(1), 24-43.*

Kaya, N. (2015). Corporate entrepreneurship, generic competitive strategies, and firm performance in small and medium-sized enterprises. *Procedia-Social and Behavioral Sciences, 207, 662-668.*

Kemp, R. L. (2018). Strategic planning in local government. Routledge. Khalique, M., Nassir Shaari, J. A., & Isa, A. H. B. M. (2011). Intellectual capital and its major components. *International Journal of Current Research, 3(6), 343.*

Khalique, M., Bontis, N., Abdul Nassir bin Shaari, J., & Hassan Md. Isa, A. (2015). Intellectual capital in small and medium enterprises in Pakistan. *Journal of Intellectual Capital, 16(1), 224-238.*

Khalique, M., Bontis, N., Bin Shaari, J.A.N., Yaacob, M.R., & Ngah, R. (2018). Intellectual capital and organisational performance in Malaysian knowledge-intensive SMEs. *International Journal of Learning and Intellectual Capital, 15(1), 20-36.*

Khalique, M., Bontis, N., Shaari, J.A.N., & Isa, A.H.M. (2015). Intellectual capital in Pakistani small and medium enterprises. *Journal of Intellectual Capital, 16(1), 224-238.*

Khan, A. A., & Jamal, W. (2013). Intellectual capital: Perception of public and private sector knowledge-based organizations in Pakistan. *Business & Economic Review, 5(1), 29-52.*

Kurdi, B., Alshurideh, M. & Al afaishat, T. (2020). Employee retention and organizational performance: Evidence from banking industry. *Management Science Letters, 10(16), 3981-3990.*

Lee, W. S., & Kim, B. Y. (2019). The effects of career orientations on entrepreneurial satisfaction and business sustainability. *Journal of Asian Finance, Economics, and Business, 6(4), 235-248.*

Liao, Z. (2018) Corporate culture, environmental innovation and financial performance. Bus Strat Environ 27(8):1368–1375

Nanath, K., & Pillai, R.R. (2017). The influence of green is practices on competitive advantage: Mediation role of green innovation performance. *Information Systems Management, 34(1), 3-19.*

Long X, Chen Y, Du J, Oh K, Han I, Yan J (2017) The effect of environmental innovation behavior on economic and environmental performance of 182 Chinese firms. *Journal of*

entrepreneurial orientation, 16(1), 224-238.

lshanty, A. M., & Emeagwali, O. L. (2019). Market-sensing capability, knowledge creation, and innovation: The moderating role of entrepreneurial-orientation. *Journal of Innovation & Knowledge, 4(3), 171-178.*

Mahmood, R., & Hanafi, N. (2013). Entrepreneurial orientation and business performance of women-owned small and medium enterprises in Malaysia: Competitive advantage as a mediator. *International Journal of Business and Social Science, 4(1).*

Majid, A., & Yasir, M. (2017). Individual and work dynamics affecting the determinants of functional flexibility in SMEs: Evidence from Pakistan. *Journal of Entrepreneurship in Emerging Economies, 9(2), 144-160.*

Mårtensson K, Westerberg K (2016) Corporate environmental strategies towards sustainable development. *Bus Strat Environ 25(1):1–9.*

Miao Z, Baležentis T, Tian Z, Shao S, Geng Y, Wu R (2019) Environmental performance and regulation effect of China's atmospheric pollutant emissions: evidence from "three regions and ten urban agglomerations." *Environ Resour Econ 74(1):211–242.*

Monteiro, A. P., Soares, A. M., & Rua, O. L. (2017). Linking intangible resources and export performance. *Baltic Journal of Management, 4(3), 179-187.*

National Bureau of Statistics (2017). Why SMEs' contribution to the nation's GDP is poor. *Business Day*. Lagos. Retrieved from http://www.businessdayonline.com/NG/index.php/entrepreneur/entrepreneurnews/51342-why-smes-contribution-to-the-nations-gdp-is-poor

Nikolaou, I.E. (2019) A framework to explicate the relationship between CSER and financial performance: *An intellectual capital-based approach and knowledge-based view of firm. J Knowl Econ 10(4):1427–1446*

Tsagarakis KP (2016). The response of small and medium-sized enterprises to potential water risks: an eco-cluster approach. J Clean Prod. *Journal of SMEs, 16(1), 224-238.*

Nouman, M., Taj, A., & Gul, S. (2017). The individual's influence on low-technology innovation: A critical realism based case study on North-West Pakistan's marble sector. *Business & Economic Review, 9(1), 131-155*

Nusair, A. Y. A., & Osman, M. H. M. (2016). An empirical study of the effect of strategic planning on Yemeni SME performance. *International Journal of Advanced Research, 4(8), 455-463.*

Obeidat, B., Tarhini, A., Masa'deh, R., & Aqqad, N. (2017). The impact of intellectual capital on innovation via the mediating role of knowledge management: A structural equation modelling approach. *International*

Journal of Knowledge Management Studies, 8(3-4), 273-298.

Obeng, B. A., (2014). Strategic entrepreneurship and small firm growth in Ghana. *International Small Business Journal, 32(5), 501-524.*

Ode, E., & Ayavoo, R. (2020). The mediating role of knowledge application in the relationship between knowledge management practices and firm innovation. Journal of Innovation & Knowledge, 5(3), 210-218.

Omar, S. (2019). Strategic Planning in Education: A Case Study of BCAA in the United Arab Emirates. *In Strategic Think-ing, Planning, and Management Practice in the Arab World 8(1), 238-249).*

Palmer, J. C., Wright, R. E., & Powers, J. B. (2015). Innovation and competitive advantage in small businesses: Effects of environments and business strategy. *Journal of Small Business Strategy, 12(1), 30-41.*

Patky, J., & Pandey, S.K. (2020). Does flexibility in human resource practices increase innovation? Mediating role of intellectual capital. *South Asian Journal of Human Resources Management. 4(7), 1463-1466.*

Pratono, A. H., Darmasetiawan, N. K., Yudiarso, A., & Jeong, B. G.(2019). Achieving sustainable competitive advantage through green entrepreneurial orientation and market orientation: *The role of inter-organizational learning. The Bottom Line, 32(1), 2-15.*

Ritonga, M. (2019). The effect of entrepreneurship orientation and competitive advantage to micro and small enterprises of food and beverage in Padang City. *Conference: 4th Padang International Conference on Education, Economics, Business and Accounting. 4(7), 1463-1467.*

Rodrigues, L.L., Tejedo-Romero, F., & Craig, R. (2017). Corporate governance and intellectual capital reporting in a period of financial crisis: Evidence from Portugal. *International Journal of Disclosure and Governance, 14(1), 1-29.*

Rozalia, N., (2013). Empirical evidence on cultural dimensions related to competitive intelligence strategies adopted by the Romanian software companies. *Business Management Dynamics, 2(7), 20-27.*

Saengon, P. (2020). The influence of structural capital, rational capital and innovation performance on the knowledge related to HRM practices in pharmacy business in Thailand: mediating role of human capital. *Systematic Reviews in Pharmacy, 11(1).*

Schott, T. (2016). Firms' innovation benefiting from networking and institutional support: *A global analysis of national and firm effects. Research Policy, 45, 1233-1246.*

Schreiber, D., Ermel, U.T., Figueiredo, J.A., & Zeni, A. (2016). Analysis of innovation and its environmental impacts on the chemical industry. *BAR-Brazilian Administration Review, 13(1), 56-75.*

Sekaran, U., & Bougie, R.J. (2016). *Research Methods for Business*: A Skill Building Approach. John Wiley and Sons.

Semrau, T., Ambos, T., & Kraus, S. (2016). Entrepreneurial orientation and SME performance across societal cultures: An international study. *Journal of Business Research, 69(5), 1928-1932.*

Shah, A., Gul, S., & Aziz, R. (2011). Problems facing the Hayatabad industrial estate and their implications on policy formulation. *Business & Economic Review, 2(3), 164-174.*

Shane S, Venkataraman S. (2019). The promise of entrepreneurship as a field of research. *Academy of Management Review, 25, 217–226.*

Shirokova, G., Vega, G., & Sokolova, L. (2013). Performance of Russian SMEs: Exploration, exploitation and strategic entrepreneurship. *Critical Perspectives on International Business, 9(1/2), 173-203.*

Shmelev, S. E., Sagiyeva, R. K., Kadyrkhanova, Z. M., Chzhan, Y. Y., & Shmeleva, I. A. (2018). Comparative sustainability analysis of two Asian cities: A multidimensional assessment of Taipei and Almaty. *Journal of Asian Finance, Economics, and Business, 5(3), 143-155.*

Sivalogathasan, V., & Wu, X. (2015). Impact of organization motivation on intellectual capital and innovation capability of the textile and apparel industry in Sri Lanka. *International Journal of Innovation Science, 7(2), 153-168.*

SMEDAN (2017). *National policy on micro, small and medium enterprises*. Abuja. Retrieved from http://www.smedan.gov.ng/images /MSME National Policy.pdf

Stranieri S, Orsi L, Banterle A, Ricci EC (2019) Sustainable development and supply chain coordination: the impact of corporate social responsibility rules in the European Union food industry. *Corporate Social Responsibility Environ Management. 26(2):481–491.*

Sudrajat, D. (2015). Competitiveness improvement of Indonesian logistics service providers: A conceptual model and future research framework. *Advanced Science Letters, 21(4), 1049-1052.*

Szymaniec-Mlicka, K. (2014). Resource-based view in strategic management of public organizations–A review of the literature. *Management, 18(2), 19-30.*

Talebi, K., Rezazadeh, A., & Najmabadi, A. D. (2015). SME alliance performance: The impacts of alliance entrepreneurship, entrepreneurial orientation, and intellectual capital. *International Journal of Entrepreneurship and Small Business, 24(2), 187-207.*

Tandon, K., & Purohit, H., (2016). Measuring intellectual capital and its impact on financial performance: Empirical evidence from CNX Nifty Companies. *Global Business Review, 17(4), 980-997.*

Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic capabilities and organizational agility: Risk,

uncertainty, and strategy in the innovation economy. *California Management Review, 58(4), 13-35.*

Tiong, Y.Y., Sondoh Jr, S.L., Igau, O.A.E., & Tanakinjal, G.H. (2017). Green employee empowerment and green physical evidence: The green service strategy to enhance firm performance. *Asian Journal of Business Research, 7(2), 94.*

Todericiu, R., & Stăniţ, A. (2015). Intellectual Capital–The key for sustainable competitive advantage for the SME's Sector. *Procedia Economics and Finance, 27, 676-681.*

Tsakalerou, M. (2015). A meta-study of intellectual capital and firm performance: When the whole is more than the sum of its parts Mariza Tsakalerou. *International Journal of Intellectual Capital, 12(3), 287-299.*

Tsalis TA, Malamateniou KE, Koulouriotis D, Nikolaou I.E. (2020) New challenges for corporate sustainability reporting: United Nations' 2030 Agenda for sustainable development and the sustainable development goals. *Corp Social Responsibility Environ Management. 27(4):1617–1629*

Tsao, H.H., (2014). Intellectual capital and performance in banking industry of Taiwan. International Journal of Innovation and Learning, 16(1), 34-52. Ullah, B., Aziz, A., & Yousaf, M.H. (2015). IC in SMEs in Pakistan. *Global Journal of Management and Business Research, 15(11), 41-48.*

Wiklund, J., & Shepherd, D. (2015). Entrepreneurial orientation and small business performance: A configurational approach. *Journal of Business Venturing, 20(1), 71-91.*

Patra, J., & Yadav, M. (2020). Strategic planning and challenges to the deployment of renewable energy technologies in the world scenario: its impact on global sustainable development. *Environment, Development and Sustainability, 22(1), 297-315.*

Yadava RN, Sinha B (2016) Scoring sustainability reports using GRI 2011 guidelines for assessing environmental, economic, and social dimensions of leading public and private Indian companies. *Journal of management, 16(1), 224-241.*

Yadiati W, Nissa N, Paulus S, Suharman H, Meiryani M (2019) The role of green intellectual capital and organizational reputation in influencing environmental performance. *Int J Energy Econ Policy 9(3):261*

Yaseen, S. G., Dajani, D., & Hasan, Y. (2016). The impact of intellectual capital on the competitive advantage: Applied study in Jordanian telecommunication companies. *Computers in Human Behavior, 62, 168-175.*

Yuan B, Ren S, Chen X (2017) Can environmental regulation promote the coordinated development of economy and environment in China's manufacturing industry. *A panel data analysis of 28 sub-sectors. J Clean Prod 149:11–24.*

Yusliza MY, Yong JY, Tanveer MI, Ramayah T, Faezah JN, Muhammad Z (2020) A structural model of the impact of green intellectual capital on sustainable performance. *Journal of Asian Finance, Economics, and Business, 8(1), 14-15.*

Walter, Auer and Ritter (2016) How does a boundary less mind set enhance expatriate job performance? The mediating role of proactive resource acquisition tactics and the moderating role of behavioural cultural intelligence. Int. *Human Resource Management 31(10):1333–1357.*

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970