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**STRATEGIC CAPABILITIES, INNOVATION  
STRATEGY AND THE PERFORMANCE OF FOOD AND  
BEVERAGE SMALL AND MEDIUM ENTERPRISES**



**DOCTOR OF PHILOSOPHY  
UNIVERSITI UTARA MALAYSIA  
October, 2019**

**STRATEGIC CAPABILITIES, INNOVATION STRATEGY AND  
THE PERFORMANCE OF SMALL AND MEDIUM  
ENTERPRISES**



**Thesis Submitted to  
School of Business Management,  
Universiti Utara Malaysia.  
In fulfilment of the requirement for the Degree of Doctor of  
Philosophy**

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## ABSTRACT

The main objective of this study is to examine the mediating role of innovation strategy on the relationship between strategic capabilities and the performance of Small and Medium Enterprises (SMEs) in the Food and Beverage (F&B) industry. Strategic capabilities, as a construct in this study, consist of top management capability, technological capability, learning capability and relational capability. Equally in the construct are innovation strategy and SMEs performance. After reviewing the available relevant literature on strategic capabilities and innovation strategy, a conceptual framework was developed based on the *Resource Based View (RBV) and Dynamic Capability Theory (DCT)*. Based on the model developed, a questionnaire was constructed and personally administered at random to collect the data from 229 respondents in the study area. *Algorithm and bootstrapping techniques of Partial Least Squared Structural Equation Model (Smart PLS-3.0)* was used to test the developed hypotheses of the study. The statistical results of the test supported most of the relationship hypothesized for the study. Top management and technological capabilities positively and significantly relates to F&B SMEs performance. Similarly, top management, technological, learning and relational capabilities significantly and positively related to SMEs innovation strategy. Innovation strategy positively impacted on performance. However, no significant relationship between learning capability, relational capability and SMEs performance was established. Moreover, significant mediation effect was established for all the four hypotheses. Consequently, the significant positive impacts of top management, technological, learning and relational capabilities postulate that these variables are valuable in influencing performance directly and indirectly through innovation strategy. On this note, F&B SMEs' managers are encouraged to develop and maintain these strategic capabilities for outstanding performance. The results of this research have contributed significantly to the body of existing literature, provided a guide to managers and policies makers, and proffered suggestion for future research based on limitation of the study.

**Keywords:** strategic capabilities, innovation strategy, SMEs performance

## ABSTRAK

Objektif utama kajian ini adalah untuk mengkaji peranan pengantara strategi inovasi dalam hubungan antara keupayaan strategik dan prestasi industri Makanan dan Minuman (M&M) dalam Perusahaan Kecil dan Sederhana (PKS) di Nigeria. Keupayaan strategik yang dibangunkan dalam kajian ini terdiri daripada keupayaan pengurusan atasan, keupayaan teknologi, kemampuan pembelajaran dan keupayaan perhubungan. Strategi inovasi dan prestasi PKS turut dibangunkan. Selepas mengkaji sorotan karya berkaitan keupayaan strategik dan strategi inovasi, satu kerangka konsep telah dibangunkan berdasarkan Teori Pandangan Berasaskan Sumber (*RBV*) dan Keupayaan Dinamik (*DCT*). Berdasarkan model yang dibangunkan, borang soal selidik dirangka dan ditadbir secara sendiri untuk mengumpul data secara rawak daripada 229 orang responden di kawasan kajian. Kaedah algoritma dan butstrap Pemodelan Persamaan Berstruktur Kuasa Dua Terkecil Separa (Smart PLS-3.0) digunakan untuk menguji hipotesis kajian. Keputusan ujian statistik menyokong kebanyakan hipotesis yang disarankan dalam kajian. Pengurusan atasan dan keupayaan teknologi mempunyai kaitan yang positif dan signifikan dengan prestasi PKS. Begitu juga dengan pengurusan atasan, keupayaan teknologi, keupayaan pembelajaran dan keupayaan perhubungan mempunyai perkaitan yang positif dan signifikan dengan strategi inovasi PKS. Strategi inovasi memberi kesan positif terhadap prestasi. Walau bagaimanapun, tiada hubungan yang signifikan antara keupayaan pembelajaran, keupayaan hubungan dan prestasi PKS. Selain itu, kesan pengantaraan yang signifikan telah dilihat bagi keempat-empat hipotesis. Oleh demikian, kesan positif yang signifikan bagi pengurusan tertinggi, keupayaan teknologi, keupayaan pembelajaran dan keupayaan perhubungan memperlihatkan bahawa pemboleh ubah adalah bernilai dalam mempengaruhi prestasi secara langsung dan tidak langsung melalui strategi inovasi. Dalam hal ini, pengurus PKS digalakkan untuk membangunkan dan mengekalkan keupayaan strategik demi mencapai prestasi yang cemerlang. Dapatan penyelidikan ini menyumbang secara signifikan kepada sorotan karya sedia ada dan memberi panduan kepada pengurus dan pembuat dasar, serta menyediakan cadangan untuk kajian pada masa hadapan berdasarkan batasan kajian.

**Kata kunci:** keupayaan strategik, strategi inovasi, prestasi PK

## ACKNOWLEDGEMENT

All praise be to Almighty Allah for His mercy and kindness in sustaining my life to achieve this hallmark in academic pursuit. I am equally indebted to acknowledge the guidance, support and sacrifice of instrumental personalities that make this journey possible and successful. My profound gratitude goes to my supervisor, Associate Professor Dr. Lily Julienti Abu Bakar for imparting in me the art and skills of research and academic writing as well as mentorship. In fact, she has made me to appreciate my course, being in UUM and Malaysia in general. Accordingly, I am grateful to Prof. Dr. Moh'd Rafin Bin Yacoob (External examiner) and Dr. Yeoh Khar Kheng (Internal examiner) for valuable comments and suggestions. Equally, I will not fail to acknowledge the support and prayers of my parents and relatives. I also wish to appreciate the support and assistance of all the members of staff from School of Business and Othman Yeop Abdallah Graduate School of Business UUM.

I am also indebted to acknowledge the support, patience, perseverance and sacrifice of my family; Hauwa Saleh, Zainab Zakar, Ismail, Maryam; Halima Yunus and Salisu. Similarly, the contribution of my PhD associates and friends at home are highly appreciated. The supports of secretary and chairmen of Manufacturers Association of Nigeria; Bauchi, Kano and Niger states are unforgettable. I also appreciate the contribution of all the respondents that participated and make the research a successful one. Finally, the support in all kinds from the Vice Chancellor, Professor Yakubu Mukhtar, Director Academic Planning Dr. Ali Manzo Usman, and the management of Yobe State University and Tertiary Education Trust Fund are instrumental to this journey of my PhD program. Jazakumullahu bi khairan.

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## LIST OF ABBREVIATIONS

ADB	African Development Bank
ATPC	African Trade Policy Center
AVE	Average Variance Extracted
BCG	Boston Consulting Group
BERD	Business enterprises research and development spending
BSC	Balanced Scorecards
CAMA	Company and Allied Matter Act
CBN	Central bank of Nigeria
CEO	Chief executive officer
CMD	Centre for Management Development
CMV	Common Method Variance
CR	Composite Reliability
DCT	Dynamic Capability Theory
DV	Dependent Variable
EEP	Entrepreneurship education program
ERGP	Economic Recovery and Growth Plan
EU	European Union
F&B	Food and Beverage
FCT	Federal Capital Territory
FIIR	Federal institute of industrial research
FP	Firm Performance
GDP	Gross Domestic Product
GII	Global Innovation Index
ICT	Information and Communication Technology
IDC	Industrial Development Centre
ITF	Industrial Training Fund
IPR	Intellectual Property Right
IS	Innovation Strategy
IV	Independent Variables
LC	Learning Capability
MAN	Manufacturing Association of Nigeria
MC	Top Management Capability



MOSTI	Malaysian Ministry of Science, Technology and Innovation
MSMEs	Micro Small and Medium Enterprises
MV	Mediating Variable
NACRDB Bank	Nigerian Agricultural, Cooperative and Rural Development Bank
NOTAP	National Office for Technology Acquisitions and Promotion
NBCI	Nigerian Bank for Commerce and Industry
NBS	National Bureau of Statistic
NDE	National Directorate of Employment
NEEDS	National Economic Empowerment and Development Strategy
NERFUND	National Economic Reconstruction Fund
NIDB	National Industrial Development Bank
NIRP	National Industrial Revolutions Plan
NITDA	National Information Technology Development Agency
NLC	Nigerian Labour Congress
NSB	National Science Board
NSE	Nigerian Stock Exchange
NSRC	National Science Research Council (Malaysia)
OECD	Organization for Economic and Cooperative Development
OYA	Othman Yeop Abdallah Graduate School of Business
PRODA	Project Development Agency
PLS	Partial Least Square
PLS-SEM	Partial Least Square-Structural Equation Modeling
RC	Relational Capability
R&D	Research and Development
RMRDC	Raw Material Research and Development Council
ROA	Return on Assets
ROE	Return on Equity
ROS	Return on Sales
SAP	Structural Adjustment Program
SMEEIS	Small and Medium Enterprise Equity Investment Scheme
SMEDAN Nigeria	Small and Medium Enterprises Development Agency of Nigeria
SMEs	Small and Medium Enterprises

SON	Standard Organization of Nigeria
SPSS	Statistical Package for Social Science
SSICS	Small Scale Industry Credit Scheme
SSM	Second tier Security Market
STI	Science, Technology and Innovation Policy
S&P	Standard and Poor
TC	Technological Capability
TQM	Total Quality Management
UAE	United Arab Emirate
UK	United Kingdom
UNCTAD	United Nation Committee on Trade and Development
US	United State of America
UUM	Universiti Utara Malaysia
VRIN	Valuable, Rare, Inimitable, Non-substitutable
WTO	World Trade Organization
YOUWIN	Youth Enterprise with Innovation in Nigeria



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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The impacts of small and medium enterprises (SMEs) on economic growth have been sufficiently outlined in the management and economics literature and recognized by many governments as strategic avenue for economic transformation (Al-Ansari, Bederr, and Chen, 2015, Eniola and Entebang, 2015, Atsu, and Cornelius, 2014, Rosli and Hanafi, 2013). SMEs have been identified as indispensable instruments in the course of industrialization by both the developed, emerging and developing economies (Shamsudeen, Keat, and Hassan, 2016, Aminu and Shariff, 2015, Atsu and Cornelius, 2014, Minai, Ibrahim, and Kheng, 2012). Apart from enhancing output and per capita income, SMEs bring about opportunities for employment and promote effective exploitation of home-grown resources which are considered fundamental to the growth and development of an economy (Aminu and Shariff, 2015, Kofan Mata, and Shehu, 2014, Ogujiuba, Ohuche, and Adenuga, 2004).

SMEs are generally regarded as drivers of economic growth and industrial development of both developing and industrialized economies (June, Kheng, and Mahmood, 2013, SMEDAN, 2013, Nguyen, et al., 2008). Most Asian economies such as Japan, Korea, Malaysia, Singapore, India, Thailand, China, Vietnam use SMEs as instrument for technological development and industrial growth (Eniola, et al., 2014, Nguyen, Alam and Prajogo, 2008, Chen, 2006). Specifically, in Malaysia, SMEs account for 97.3% of industrial activities, and contribute more than 31% to

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**Appendix A:  
Questionnaires**



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Dear Respondent,

**ACADEMIC SURVEY INSTRUMENT**

I am a PhD candidate in the above named prestigious university currently conducting a research on a topic titled “**Strategic Capabilities, Innovation Strategy and the Performance of Food and Beverage SMEs**”. Can I ask you to utilize your valuable time to help me fill in this questionnaire objectively and accurately as there is no right or wrong answer. Please be rest assured that information provided will be **confidentially and strictly used for academic purposes**.

As I anticipate your kind cooperation, please accept my utmost regard.

Yours sincerely,

***Yakubu Salisu***

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This questionnaire consists of two (2) sections (A and B). Section A contains questions that will help us evaluate how Innovation Strategy mediate the relationship between Strategic Capabilities and the performance of F&B manufacturing SMEs in Nigeria. While section B provides questions related to the bio-data of the companies. This will help me evaluate the nature and characteristic of F&B SMEs in Nigeria.

All the statements in section A will be measured on a five point likert scale ranging from 1-5(with 1 indicating strongly disagree and 5 strongly agree). You are required **to tick the appropriate option** in both section A and B.

## SECTION A

Please use the boxes below to indicate your stand on the following statements

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

### Firm Performance

S/No.	Items	1	2	3	4	5
1	Over the past few years, our firm have being recording success	1	2	3	4	5
2	Our firm profit have improved over the past few years	1	2	3	4	5
3	Over the past few years, our employees satisfactions have improved.	1	2	3	4	5
4	Over the past few years, our customer's satisfactions have improved.	1	2	3	4	5
5	Over the last few years, our firm's social performance have improve	1	2	3	4	5
6	Over the past few years, our firm's performance in environmental protection have improved	1	2	3	4	5

### Top Management Capability

S/No.	Items	1	2	3	4	5
1	Our company's management has adequate knowledge of industry we serve	1	2	3	4	5
2	Our company's management has the required technical skills in the industry we serve.	1	2	3	4	5
3	Our firm's management team has a cordial relationship with customers and suppliers.	1	2	3	4	5
4	Our firm's management has the appropriate leadership skills	1	2	3	4	5

	required to operate in a rapidly changing environment.					
5	Our firm's management has understood the changing business environment.	1	2	3	4	5
6	Our firm's top management is in good relations with employees.	1	2	3	4	5
7	Our firm's management shares firm's vision with all stakeholders.	1	2	3	4	5
8	Our firm's management have strategic planning abilities	1	2	3	4	5

### Technological Capability

S/No.	Items	1	2	3	4	5
1	Our firm is one of those firms in the industry that establish technology standard	1	2	3	4	5
2	Our firm is one of those firms in our industry to upgrade technology standard	1	2	3	4	5
3	Our firm have superior competitive technology strategy in the industry	1	2	3	4	5
4	Our firm have robust technological skills in several fields of operation	1	2	3	4	5
5	Our firm leads in technology innovation in the industry we operate	1	2	3	4	5
6	Our firm is competent in applying innovative technology to problem solving	1	2	3	4	5
7	Our firm have the monitoring capacity to accurately predict changes in the technological environment	1	2	3	4	5
8	Our firm have strong abilities to integrate internal and external technological resources	1	2	3	4	5
9	Our firm have the capacity to attract and hire talented experts	1	2	3	4	5
10	Our firm makes sufficient investment in R&D activities	1	2	3	4	5
11	Our firm improves technical skills through continuous training programs	1	2	3	4	5

### Learning Capability

S/No.	Items	1	2	3	4	5
1	Our firm have been encouraging knowledge sharing among employees	1	2	3	4	5
2	Our firm encourages participatory decision making	1	2	3	4	5

3	Our firm management are committed to effective learning	1	2	3	4	5
4	Our firm is committed to internal dialogue	1	2	3	4	5
5	Our firm encourages experimentation and openness	1	2	3	4	5
6	Our firm always strive toward knowledge transfer	1	2	3	4	5
7	Our firm support new idea from employees	1	2	3	4	5

### Relational Capability

S/No	Items	1	2	3	4	5
1	Our firm has the capability to create relationship with new relevant partners	1	2	3	4	5
2	Our firms has the ability to maintain relationship with existing partners	1	2	3	4	5
3	Our firm has the capability to develop mutual trust with strategic partners	1	2	3	4	5
4	Our firm have the ability to develop mutual goals and commitment with strategic partners	1	2	3	4	5
5	Our firm have the capability to build on the strength of our strategic partners	1	2	3	4	5
6	Our firm have develop the capacity to effectively communicate with relevant partners	1	2	3	4	5
7	Our firm have the ability to engage with partners collectively in problem solving	1	2	3	4	5
8	Our firm have the capacity to achieve target while negotiating with relevant partners	1	2	3	4	5
9	Our firm has the capability to achieve win-win with relevants partners	1	2	3	4	5

### Innovation Strategy

S/No.	Items	1	2	3	4	5
1	Over the past few years, our firm have relentlessly set its operating system to global standard	1	2	3	4	5
2	To increase productivity, our firm have constantly updates its work practice over the past few years.	1	2	3	4	5
3	Over the past few years, our firm have been regularly using technology in improving the quality of our product	1	2	3	4	5
4	Over the past few years, our firm have been investing adequately in developing new operating system	1	2	3	4	5

5	Over the past few years, our firm have been regularly training its employees on new technology	1	2	3	4	5
6	Over the past few years, our firm have presents numerous new product to the market	1	2	3	4	5
7	Over the past few years, our firm have been modifying its product	1	2	3	4	5
8	Over the past few years, our firm have been regularly assessing the need for new product	1	2	3	4	5
9	Over the past few years, our firm have introduces many new product than competitors	1	2	3	4	5
10	Over the past few years, the new product we have been introducing has cause substantial changes in a positive fashion within th industry we serve	1	2	3	4	5
11	Over the past few years, our firm has been regularly introducing new ways of managing our affairs	1	2	3	4	5
12	Over the past few years, our firm have been investing substantially in updating administrative techniques	1	2	3	4	5
13	Over the past few years, our firm have been empowering employees to initiate	1	2	3	4	5
14	Over the past few years, our management have been regularly assessing for new administrative system	1	2	3	4	5
15	Over the past few years, our administrative system has served as a benchmark to competitors	1	2	3	4	5

## SECTION B: Demographic Information

1. Age: Less than 20 [ ] 20-29 [ ] 30-39 [ ] 40-49 [ ] 50-Above [ ]
2. Gender : Male [ ] Female [ ]
3. Qualification: Primary [ ] SSCE [ ] Diploma/NCE [ ] BSc/HND [ ] Post Graduate [ ]
4. Location: Bauchi state [ ] Kano state [ ] Niger state [ ]
5. Position in business: Owner/manager [ ] Middle manager [ ]
6. Number of fulltime employee: Less than 10 [ ] 10- 49 [ ] 50-199 [ ]
7. Value of assets excluding land: Less than N5m [ ] N5m- 49 [ ] N50m- N500m [ ]
8. Year in business: 0-5 years [ ] 6- 10 years [ ] 11- Above [ ]
9. Type of business: Food [ ] beverage [ ]
10. Form of ownership: Sole Proprietorship [ ] Partnership [ ] Company [ ]
11. Source of capital: Equity [ ] Debt [ ] Equity/debt [ ]



**Appendix B:**

**List of Members Manufacturers Association of Nigeria (MAN); Bauchi state;**

**Kano state and Niger state**

