



**DISRUPTIVE INNOVATION FACTORS INFLUENCING
FINANCIAL SERVICE PERFORMANCE: AN IN-DEPTH
ANALYSIS AT THE MOHAMMAD BIN RASHID CENTRE
FOR GOVERNMENT INNOVATION, DUBAI, UAE**



Doctor Of Philosophy

2024



Faculty of Technology Management and Technopreneurship

**DISRUPTIVE INNOVATION FACTORS INFLUENCING
FINANCIAL SERVICE PERFORMANCE: AN IN-DEPTH
ANALYSIS AT THE MOHAMMAD BIN RASHID CENTRE FOR
GOVERNMENT INNOVATION, DUBAI, UAE**

Khalifah Almansoori

Doctor Of Philosophy

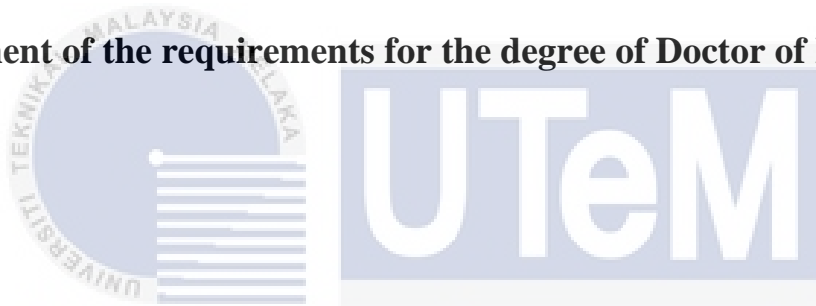
2024

**DISRUPTIVE INNOVATION FACTORS INFLUENCING FINANCIAL SERVICE
PERFORMANCE: AN IN-DEPTH ANALYSIS AT THE MOHAMMAD BIN
RASHID CENTRE FOR GOVERNMENT INNOVATION, DUBAI, UAE**

KHALIFA ALMANSOORI

A thesis submitted

in fulfilment of the requirements for the degree of Doctor of Philosophy



Faculty of Technology Management and Technopreneurship

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

DECLARATION

I declare that this thesis entitled “**Disruptive Innovation Factors Influencing Financial Service Performance: An In-depth Analysis at the Mohammad Bin Rashid Centre for Government Innovation, Dubai, UAE**” is the result of my research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in the candidature of any other degree.



APPROVAL

I hereby declare that I have read this thesis, and in my opinion, this thesis is sufficient in terms of scope and quality for the award of Doctor of Philosophy.

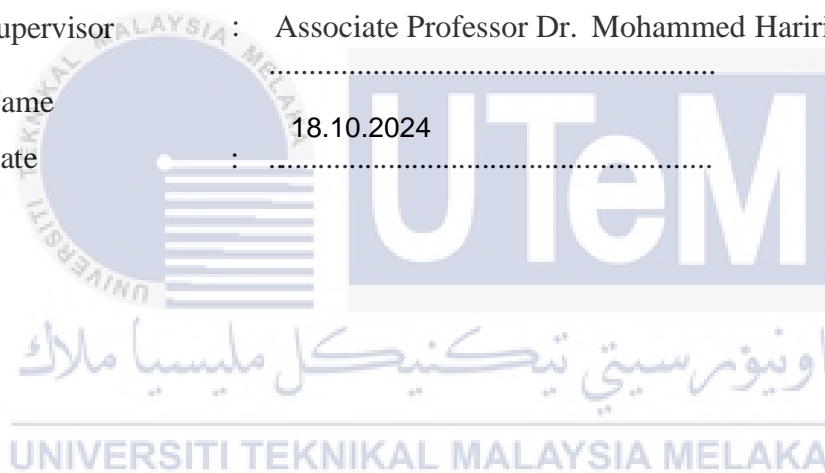
Signature :

Supervisor : Associate Professor Dr. Mohammed Hariri Bakri

Name

18.10.2024

Date



DEDICATION

I want to dedicate this thesis to my cherished parents and family, who have inspired and given me strength. Without their ongoing moral, spiritual, and financial support, there is little question that I would not have finished this work.



ABSTRACT

The concept of disruptive innovation, characterised by the introduction of novel products or services that fundamentally alter the market landscape, has become increasingly pivotal in shaping the trajectories of economic sectors, mainly financial services performance. This study delves into the impact of disruptive innovation on financial service performance, with a specific focus on the UAE, using the Mohammad Bin Rashid Centre for Government Innovation in Dubai as a case study. By synthesising the Innovation Diffusion Theory and the Technology Acceptance Model, this research constructs a conceptual framework to explore how disruptive innovation factors, mediated by disruptive business models and moderated by disruptive technologies, influence financial service performance. Employing a quantitative methodology, data were gathered from 315 executive banking officers through structured questionnaires and analysed using Structural Equation Modelling (SEM). The findings underscore the significant positive relationships between economic, environmental, and social factors of disruptive innovation and financial service performance. Furthermore, the study highlights the critical mediating role of disruptive business models and the moderating influence of disruptive technology in this dynamic. Theoretically, this research enriches the discourse on disruptive innovation by integrating the Innovation Diffusion Theory and the Technology Acceptance Model to offer a nuanced understanding of the mechanisms through which disruptive innovation factors affect financial service performance. It advances a holistic view of talent management (TM) by transcending the traditional binary of inclusive versus exclusive approaches, advocating for a synergistic integration of TM mindset and TM strategies. This approach provides a fresh perspective on the interplay between disruptive innovation and financial service performance, underpinned by the principles of Social Exchange Theory (SET), which elucidates the mediating effects of job engagement and satisfaction in the TM-performance nexus. Practically, the insights gleaned from this study are poised to inform policy formulation and strategic decision-making in the UAE. By delineating the pathways through which disruptive technologies and business models can bolster financial service performance, the findings offer actionable intelligence for policymakers aiming to foster an innovation-driven economic environment and for managers seeking to harness disruptive innovations to enhance competitiveness and efficiency in the financial sector. In sum, this study contributes to the theoretical enrichment of disruptive innovation literature and provides a pragmatic blueprint for leveraging disruptive technologies and business models to propel the growth and dynamism of financial services in the UAE.

**FAKTOR INOVASI MENGGANGGU YANG MEMPENGARUHI PRESTASI
PERKHIDMATAN KEWANGAN: ANALISIS MENDALAM DI PUSAT INOVASI
KERAJAAN MOHAMMAD BIN RASHID, DUBAI, UAE**

ABSTRAK

Konsep inovasi mengganggu, yang dicirikan oleh pengenalan produk atau perkhidmatan baru yang secara asasnya mengubah landskap pasaran, telah menjadi semakin penting dalam membentuk trajektori sektor ekonomi, terutamanya perkhidmatan kewangan. Kajian ini menyelami impak inovasi mengganggu terhadap prestasi perkhidmatan kewangan, dengan fokus khusus pada UAE, menggunakan Pusat Inovasi Kerajaan Mohammad Bin Rashid di Dubai sebagai kajian kes. Dengan mensintesis Teori Penyebaran Inovasi dan Model Penerimaan Teknologi, penyelidikan ini membina kerangka konseptual untuk meneroka bagaimana faktor inovasi mengganggu, yang dimediasi oleh model perniagaan mengganggu dan dimoderasi oleh teknologi mengganggu, mempengaruhi prestasi perkhidmatan kewangan. Dengan menggunakan metodologi kuantitatif, data dikumpulkan dari 315 pegawai perbankan eksekutif melalui soal selidik berstruktur dan dianalisis menggunakan Pemodelan Persamaan Struktural (SEM). Penemuan menekankan hubungan positif yang signifikan antara faktor ekonomi, persekitaran, dan sosial inovasi mengganggu dan prestasi perkhidmatan kewangan. Selanjutnya, kajian ini menyoroti peranan mediasi kritikal model perniagaan mengganggu dan pengaruh moderasi teknologi mengganggu dalam dinamik ini. Secara teorinya, penyelidikan ini memperkayakan wacana tentang inovasi yang mengganggu dengan mengintegrasikan Teori Penyebaran Inovasi dan Model Penerimaan Teknologi untuk menawarkan pemahaman yang lebih halus mengenai mekanisme di mana faktor inovasi mengganggu mempengaruhi prestasi perkhidmatan kewangan. Ia memajukan pandangan holistik pengurusan bakat (TM) dengan mengatasi binari tradisional pendekatan inklusif berbanding eksklusif, menyokong integrasi sinergistik minda TM dan strategi TM. Pendekatan ini menyediakan perspektif baru mengenai interaksi antara inovasi mengganggu dan prestasi perkhidmatan kewangan, yang disokong oleh prinsip Teori Pertukaran Sosial (SET), yang menjelaskan kesan mediasi penglibatan kerja dan kepuasan dalam hubungan TM-prestasi. Secara praktikal, wawasan yang diperolehi dari kajian ini bersedia untuk memberi informasi kepada pembentukan dasar dan pembuatan keputusan strategik di UAE. Dengan menggariskan laluan di mana teknologi dan model perniagaan mengganggu dapat meningkatkan prestasi perkhidmatan kewangan, penemuan menawarkan kecerdasan tindakan bagi pembuat dasar yang bertujuan untuk mendorong persekitaran ekonomi yang didorong oleh inovasi dan bagi pengurus yang berusaha untuk memanfaatkan inovasi mengganggu untuk meningkatkan daya saing dan kecekapan dalam sektor kewangan. Kesimpulannya, kajian ini tidak hanya menyumbang kepada pengayaan teoretikal literatur inovasi mengganggu tetapi juga menyediakan cetak biru pragmatik untuk memanfaatkan teknologi dan model perniagaan mengganggu untuk mendorong pertumbuhan dan dinamisme perkhidmatan kewangan di UAE.

ACKNOWLEDGEMENTS

My supervisor, Associate Professor Dr. Mohamad Hariri bin Bakri, guided me and provided me with consistent assistance while I finished my thesis, and for that, I want to convey my sincere gratitude. His encouragement and support have helped me to approach finishing my thesis with a positive outlook, and I am grateful for that. I'm thankful to my wife, kids, and parents for their support, prayers, and unending tolerance and for helping me prepare for the future by helping me finish my research.



TABLE OF CONTENTS

	PAGE
DECLARATION	
APPROVAL	
DEDICATION	
ABSTRACT	i
ABSTRAK	ii
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vii
LIST OF FIGURES	x
LIST OF APPENDICES	xi
LIST OF ABBREVIATIONS	xii
LIST OF PUBLICATIONS	xiii
 CHAPTER	
1. INTRODUCTION	1
1.1 Introduction	1
1.2 Background of the study	3
1.3 Problem statement	11
1.4 Research questions and hypotheses	29
1.5 Research objectives	30
1.6 Scope of the study	31
1.7 Significance of the study	32
1.8 Operational definition	33
1.8.1 Theoretical contributions	36
1.9 Thesis structure	37
 2. LITERATURE REVIEW	38
2.1 Introduction	38
2.2 The Role of Disruption in Financial Service Performance	46
2.3 Theoretical framework	50
2.3.1 The S-Curve and Bell Curve Models as Means of Explaining the Diffusion Model: The Role of Communication	55
2.4 Conceptual model development	61
2.5 Summary	76
 3. RESEARCH METHODOLOGY	78
3.1 Introduction	78
3.2 Research design	80

3.3	Research process	90
3.4	Operationalisation of questionnaire construct	94
3.5	Population and sample size	105
3.5.1	Sampling technique	109
3.5.2	Sample size determination	111
3.5.3	Content validity	113
3.5.4	Pilot testing of instrument	116
3.5.5	Distribution of survey questionnaire	120
3.6	Data analysis procedure	101
3.7	Reliability and validity	125
3.7.1	Frequency and mean score analysis	127
3.7.2	Mediating analysis	128
3.7.3	Moderating analysis	128
3.8	Summary	129
4.	ANALYSIS AND RESULTS	130
4.1	Introduction	130
4.2	Data analysis	130
4.2.1	Data collection process	132
4.3	Data screening	133
4.3.1	Survey bias test	134
4.3.2	Normality statistics of preliminary measures	135
4.4	Demographic analysis	137
4.5	Descriptive analysis	143
4.5.1	Economic factor	143
4.5.2	Environmental factor	144
4.5.3	Social factor	145
4.5.4	Financial performance	146
4.5.5	Disruptive technology	148
4.5.6	Business model	150
4.6	Research model analysis	
4.6.1	Assessment of measurement model	152
4.6.1.1	Composite reliability and internal consistency	153
4.6.1.2	Indicator reliability	154
4.6.1.3	Convergent validity	158
4.6.1.4	Discriminant validity	159
4.6.2	Assessment of structural model	161
4.6.2.1	Multicollinearity	163
4.6.2.2	Path coefficient	165
4.6.2.3	Hypotheses testing	166
4.6.2.4	Coefficient of determination	169
4.6.2.5	Effect size	170
4.6.3	Evaluation of mediator	170
4.6.3.1	Hypotheses testing for mediating relationships	171
4.6.3.2	Mediating analysis	173
4.6.3.2.1	Disruptive Environment→ Business Model→ Financial Performance	173

4.6.3.2.2	Disruptive Social→ Business Model→ Financial Performance	174
4.6.3.2.3	Disruptive Technology as Moderator between Business Model and Financial Performance	175
4.7	Summary	177
5.	DISCUSSION AND CONCLUSION	179
5.1	Introduction	179
5.2	Summary of the study	180
5.3	Demographic profile of the respondents	182
5.4	Discussion of the findings	186
5.4.1	Research objective 1	189
5.4.2	Research objective 2	192
5.4.3	Research objective 3	196
5.4.4	Research objective 4	199
5.5	Summary of the findings	202
5.6	Research contribution	204
5.6.1	Contribution to knowledge	206
5.6.2	Contribution to practice	211
5.6.3	Contribution to institutional	215
5.7	Limitation of the research	217
5.8	Direction for future study	218
	REFERENCES	221
	APPENDICES	241

اونیورسیتی تکنیکل ملیسیا ملاک

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

LIST OF TABLES

TABLE	TITLE	PAGE
2.1	The Disruptive Innovation factors toward financial service performance	39
2.2	Summary of the literature on disruptive innovation factors toward financial service performance	42
2.3	Justifying each factor of disruptive innovation factors toward financial service performance	45
2.4	Disruptive Business Model	47
2.5	The Disruptive Technology	49
2.6	The Innovation Diffusion Theory component	52
2.7	The Technology Acceptance Model component	54
2.8	The adapted disruptive innovation factors and financial service performance	62
2.9	Conceptual model indicator disruptive innovation factors and financial service performance	66
3.1	Research Paradigm Assumptions, Adapted from Saunders et al. (2009)	83
3.2	Deductive Approach, Adapted from Sekaran (2016)	85
3.3	Phases to design and conduct a survey questionnaire	95

3.4	Functional estimate for questionnaire	97
3.5	Contrive for questionnaire	98
3.6	Elements evaluate for disruptive innovation factors and financial service performance	101
3.7	Deciding sample area from a given population	111
3.8	Expert panels	115
3.9	Determining Cronbach Alpha, Adapted from Sekaran (2016)	117
3.10	The order of survey organisation	121
3.11	An outline of the study procedure	126
4.1	Descriptive statistics	136
4.2	Personal profile of respondents	142
4.3	Economic factor	144
4.4	Environmental factor	145
4.5	Social factor	146
4.6	Financial performance	147
4.7	Disruptive technology	149
4.8	Business model	151
4.9	Internal consistency measures	153
4.10	Indicator outer loadings (before elimination)	154
4.11	List of eliminated items	156
4.12	Indicator outer loadings (after elimination)	156

4.13	Average Variance Extracted (AVE) values	159
4.14	Fornell-Larcker criterion	160
4.15	Cross-loadings	160
4.16	VIF values	164
4.17	Path coefficient	166
4.18	Coefficient of determination	169
4.19	Effect size values for each path	170
4.20	Disruptive Environment→ Business Model→ Financial Performance	173
4.21	Disruptive Social→ Business Model → Financial Performance	174
4.22	Significance of Moderating Effect of Disruptive Technology over Business Model & Financial Performance	175
5.1	Summary of research objectives, research hypothesis, and key findings	188

اونیورسیتی تکنیکل ملیسیا ملاک

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

LIST OF FIGURES

FIGURE	TITLE	PAGE
2.1	The Innovation Diffusion Theory, Adapted from Rogers (1962)	51
2.2	The Technology Acceptance Model, Adapted from Davis (1989)	53
2.3	The Conceptual Model of Disruptive Innovation Factors and Financial Service Performance	65
3.1	Research Onion Diagram, Adapted from Saunders et al. (2009)	81
3.2	Research process	91
4.1	Factor loading after eliminations	158
4.2	Bootstrapping with moderator	176

LIST OF APPENDICES

APPENDIX	TITLE	PAGE
A	Survey Questionnaire	241



LIST OF ABBREVIATIONS

AVE	-	Average Variance Extracted
CA	-	Cronbach Alpha
CFA	-	Confirmatory Factor Analysis
DV	-	Dependent Variables
EE	-	Employee Engagement
EFA	-	Exploratory Factor Analysis
ES	-	Employee Satisfaction
IC	-	Internal Consistency
IR	-	Indicator Reliability
IV	-	Independent Variables
JP	-	Job Performance
MS	-	Talent Management Strategies
MT	-	Talent Management Mindset
PLS	-	Partial Least Squares
SD	-	Standard Deviation
SEM	-	Structural Equation Modelling
SPSS	-	Statistical Package for Social Science
UAE	-	United Arab Emirates
VAF	-	Variance Accounted For
VIF	-	Variance Inflation Factor

LIST OF PUBLICATIONS

Al Mansoori, K.K.M. and Bakri, M.H, 2023. Determinants of Disruptive Innovation That Influences Financial Service Performance, *Global Business & Finance Review*, 28(2), pp.69-92. (Indexed by Scopus)

Bakri, M.H, Al Mansoori, K.K.M. and Mohd Azlan, N.S., 2023. Determinants intention usage of Islamic E-Wallet Among Millennials, *Global Business & Finance Review*, 28(1), pp.11-32. (Indexed by Scopus)



CHAPTER 1

INTRODUCTION

1.1 Introduction

This thesis outlines research that scrutinises disruptive innovation factors that can influence financial service performance in the UAE. Specifically, this study examines the mediating effects of a disruptive business model on the relationship between disruptive innovation factors and financial service performance. It also examines the moderating effects of disruptive technology on the relationship between the disruptive business model and financial service performance.

The term 'disruptive innovation' generally emphasises how a new development significantly alters the existing business operations. Disruptive innovation is recognised as innovation and strategising their services or products to appeal to their most formidable and beneficial market environment. According to Schmidhuber et al. (2020), disruptive innovation comes in at the bottom of the market and service business in a "good enough" way to determine whether an innovator's business model will succeed. Consistent with the changing global landscape towards the industrial revolution and digital economy, many researchers are recognising disruptive innovation as a coherent value network of an innovative business model (Kim et al., 2020; Ritch and McColl, 2021) because it is related to sustaining innovation, competitiveness, and economic growth. In this case, disruptive innovation has been considered an essential input to the economic growth of a business operation.

Responding to the changing landscape towards disruptive innovation resulting from advanced technological development, the UAE government has focused seriously

on developing new disruptive technology platforms. Disruptive technology can be described as the platform that will use the newest disruptive technologies to digitise trade in the UAE and transform it into a knowledge-based economy (Sibanda et al., 2020). Disruptive innovation is the latest platform for embracing the future of innovation and technology because the UAE is gunning to become the next big technology start-up hub; hence, enabling disruptive innovation has become the leading national priority. In this respect, it is believed that disruptive innovation involves the technologies used to construct them simple to utilise and accessible to the immense selected market that improves its operations on a predictable timeframe for practices to drive sustainable growth and ultimately reinvent the value proposition of the business model itself (Ramdani et al., 2020).

However, due to the lack of transformation of today's disruptive innovation into practical regulation, the influence of disruptive innovation in the UAE is still at its beginning level (Sibanda et al., 2020). Moreover, this dilemma occurs due to disruptive technology, where the UAE has the highest banking service level, gaining digitalised business. Recognising that embracing disruptive technology will increase business speed and improve financial service performance (Timothy et al., 2021), this study also contributes towards achieving the UAE national agenda of building top business intelligence through efficient skills and digital resources.

As an introductory chapter of the thesis, this chapter is classified into eight sections. The first section confers the background of the study, accompanied by the problem statements in the second section. The third section outlines the research questions addressed in the study, and the fourth section outlines the objectives of the study. Next, the fifth section describes the scope of the study, and the sixth section confers the significance of the study. The seventh section describes the operational definitions of the constructs involved in the study, while the last section, section eight, contours the structure of the thesis.

1.2 Background of the study

Disruptive innovation is an innovative business idea for a technology platform, and its importance directly contributes to the growth of disruptive technology globally. Many countries drive toward disruptive innovation based on disruptive business models (Olabode et al., 2022). The development of disruptive innovation can be traced to the increasing growth of innovative technologies and increasing accessible transformation. For example, according to the Annual Global Innovation Index 2020 (Dutta et al., 2020), disruptive innovation in the UAE has steadily grown from 10 per cent in 2010 to 19 per cent in 2019.

It is contemplated to continue growing because of the technical ability to track financial service performance and analyse insights for optimising the banking service for better results. Similarly, based on a survey conducted by Technology Pro Research (Urbinati et al., 2022), disruptive innovation emphasises that 75 per cent of organisations have an innovative technology strategy, 25 per cent of businesses have completed the disruptive technology, and 45 per cent in the year 2019 focus on disruptive business model worldwide. The growing trends show the increasing need for disruptive innovation platforms worldwide.

Disruptive innovation is the process of innovating that enhances technologies to incrementally improve its operation (Ritch and McColl, 2021). The typical inception of disruptive innovation allows businesses to remain competitive through constant learning and continuous improvement towards innovation that ventures through technology to emerge their business model (Sibanda et al., 2020). Besides, it operates with high leverage of integrated knowledge and takes devastating challenges to strive towards tremendous success through a learning experience emphasising continual business model improvement. Disruptive innovations are equipped with both business models and technology innovation

that drive toward the modern world with a high-technology platform (Wang et al., 2021). Moreover, disruptive innovation will develop an innovation enhancement, and businesses are ingrained to learn unique criteria availability (Benzidia et al., 2021). Furthermore, the effects of disruptive innovation give a clear understanding of the innovation process from idea generation to structuring the business model. Disruptive innovation improves the affordability and availability of technologies through an innovation context that is enormously influential in business circles and predicts performance success (Reilly and Binns, 2019).

Countries worldwide have recognised the importance of implementing disruptive innovation to transition towards new economic innovation. In India and China, an emerging solution and innovation product needs the disruptive innovation capability of technology that changes the opportunities and market practice to innovative practices (Millar et al., 2018). Even in a developed country such as America, disruptive innovation is marked by high leverage of innovation knowledge and high growth potential in its economic power (Olabode et al., 2022). In this regard, technological knowledge and innovation skills are necessary for financial service performance. However, disruptive innovation does not emphasise technology innovation alone. Even researchers who have done their studies in this area failed to identify the factors contributing to financial service performance (Christensen et al., 2018). Therefore, there is a need to explore financial service performance that establishes technologies and business models to produce innovative business ideas. Yet, a proper method is needed to expose disruptive innovation to the actual market world (Si and Chen, 2020).

Future-ready disruptive innovation has become a significant concern in developing countries like the United Arab Emirates (UAE). According to the Global Competitiveness Report for 2020 for the World Economic Forum, the UAE ranked 26th out

of 80 countries in the world for disruptive innovation ranking. Salih (2020) asserted that nothing is in a more critical dilemma than disruptive innovation in the UAE. In this context, Coulson (2017) highlighted that disruptive innovation is performing on the road to recovery, aimed to prompt policymakers beyond the short-term growth of the UAE into a knowledge-based productivity economy (Goher et al., 2021).

In the UAE, disruptive innovation development and recovery priorities are highly needed through innovative technology partnerships (Lee et al., 2017). From the late 90s until the early 20s, disruptive innovation in the UAE has transformed towards a new economic system with disruptive technology for developing new information, goals, and tasks towards the productivity economy (Mumtaz and Parahoo, 2019). Yet, due to the lack of innovation expertise and the ineffectiveness of business models, the UAE government still struggles to revive financial service performance (Hasan et al., 2020).

The lack of innovation experts has affected the capability of disruptive innovation for adopting new and innovative practices facilitated by technology (Zairi, 2019) and fabricating new or innovative products in the priority process (Chandra et al., 2019). Further, ineffectiveness in business models has affected the attributes and characteristics of innovative technology that impact the growth of an organisation's future economy, which subsequently restricts the fundamental driver of disruptive innovation (Benzidia et al., 2021). In this case, the current global trend towards the transformation towards disruptive innovation and the prevalent usage and creation of disruptive technology in business performance requires determining economic systems for environmental sustainability and shared prosperity.

Despite its positive contributions to market-oriented, disruptive innovation has several issues (Hopp et al., 2018) that have significantly impacted organisational performance, business models, and innovation technologies (Kumaraswamy et al., 2018). For instance, disruptive innovation activities have contributed to long-term prosperity, resulting from