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Determinants of Disruptive Innovation That Influences Financial Service Performance

Khalifa Khalfan Muftah Al Mansoori, Mohammed Hariri Bakri†

Fakulti Pengurusan Teknologi dan Teknoushawanan, Universiti Teknikal Malaysia Melaka, Hang Tuah Jaya 76100 Durian Tunggal, Melaka

A B S T R A C T

Purpose: Disruptive innovation has been considered an important 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 started to focus seriously on the development of new disruptive technology platforms. Thus, as an initial step in developing a model of disruptive innovation factors that contributes to the financial service performance in the UAE, this study was geared towards investigating the disruptive innovation factors towards financial service performance.
Design/methodology/approach: This research employed a quantitative research method. The data were collected from 315 respondents among executive banking officers at Mohammed Bin Rashid Centre for Government Innovation, in Abu Dhabi through questionnaires.
Findings: The results indicated that disruptive innovation factors of financial service performance in the UAE showed a rather high level of technology intention towards innovation. As for the disruptive innovation factors, the economic, environmental and social were proven significantly and positively related to financial service performance. Therefore, the results supported Innovation Diffusion Theory and Technology Acceptance Model that both disruptive business models and disruptive technology influence a financial institution's performance.
Research limitations/implications: This paper offers important implications specifically This study has successfully shed some light on the willingness of current disruptive innovation to transform into a financial service performance context. The result of this study suggested that every business leader is playing a crucial part in influencing others to take up disruptive innovation practices in business. Since financial institutions can only practice disruptive innovation transition when the owner-managers appreciate it, it is therefore viable for the existing financial institution to share their own experiences or success stories with others. The government needs to have disruptive innovation since financial service performance is assumed to be a significant job and become an impetus of monetary and economic development in UAE, with the commitment of 80 percent of absolute innovation establishments in UAE that add to 20 percent of the nation's Gross Domestic Product (GDP), while shares 10 percent exports of the country. Concerning the national agenda vision 2021, the government aimed at becoming a high-income nation.
Originality/value: The disruptive innovation factors can be a focus on economic, environmental, and social for enhancing a financial service performance. Yet, the integration of disruptive technology as cost-benefit, compatibility, and complexity in the relationship between a disruptive business model in the value proposition, resources accessibility, and business structure with disruptive innovation factors towards financial service performance.

Keywords: Disruptive Innovation, Financial, Performance, Business Model, Diffusion Theory

† Mohammed Hariri Bakri
E-mail: hariri@utem.edu.my

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I. Introduction

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 in the world are driving toward disruptive innovation based on disruptive business models (Olabode et al., 2022). The growth 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 been steadily growing from 10 percent in 2010 to 19 percent in 2019, and it is contemplated to continue growing in the future years because of technical ability to track financial service performance and analyze insights for optimizing the banking service for better results in the future. Similarly, based on a survey conducted by Technology Pro Research (Urbinati et al., 2022) disruptive innovation emphasizes that 75 percent of the organization have an innovative technology strategy, 25 percent of businesses have completed the disruptive technology, and 45 percent 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 is allowing 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 greater success through a learning experience that emphasizes continual improvement in the business model.

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 (O'Reilly and Binns, 2019).

Countries worldwide have recognized the importance of implementing disruptive innovation for the transition towards new economic innovation. In India and China, an emerging solution and innovation product needs the disruptive innovation capability of technology role 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. In this regard, technological knowledge and innovation skills are necessary for financial service performance. However, disruptive innovation does not emphasize technology innovation alone. Even researchers who have done their studies in this area failed to identify the factors that contribute to financial service performance (Christensen et al., 2018). Therefore, there is a need to explore financial service performance that established technologies and business models to produce innovative business ideas Yet, a proper method is needed to enable disruptive innovation to be exposed to the real market world (Si and Chen, 2020).

Future-ready disruptive innovation has become a major concern in developing countries, such as the United Arab of Emirates (UAE). According to the Global Competitiveness Report year, 2020 for the World Economic Forum shows that UAE rated26th place out of 80 countries in the world for disruptive innovation ranking. Salih (2020) asserted that there is nothing more important dilemma than disruptive innovation in UAE. In this context, Coulson-Thomas (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 been transforming towards a new economic system with disruptive technology for the development of new information, goals, and tasks towards the productivity economy (Mumtaz and Parahoo, 2019). E-Wallet, Payment gateway and Blockchain technology consider innovation in financial sercice sector in UAE. Yet, due to the lack of innovation expertise and the ineffectiveness of business models, the government of UAE 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 the future economy of an organization 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 the need to determine economic system for environmental sustainability and shared prosperity.

Disruptive innovation plays a major role in showing evidence of advanced technology's impact on the world and society that is shaped by innovation influence as trendsetting. According to García-Avilés (2020), good disruptive innovation and its direction structure are significant for the innovation context. In the atmosphere of progress, disruptive innovation is seen as the way to innovation achievement. Disruptive innovation is presently the most discussed issue in organizations and businesses (Hutahayan and Wahyono, 2021). Considering that disruptive roles are also innovation in structure, many studies (Glauner, 2016; Coulson-Thomas, 2017; Si and Chen, 2020; Timothy et al., 2021) have investigated the relationship between disruptive innovation and service performance. However, studies that investigate how disruptive innovation factors influence the outcome of financial service performance are still limited. Further, based on the assertion by Rogers (1962) that Innovation Diffusion Theory is the best disruptive innovation factor that influences key outcomes of an organization, for managerial performance, disruptive strategy, prediction outcomes, and technology execution, this study investigates the disruptive innovation factors framed within the Innovation Diffusion Theory that contribute to the development of innovative technologies. Specifically, investigate the disruptive innovation factors together with the connection of disruptive business models and disruptive technology that contribute to the financial service performance. It is argued that Innovation Diffusion Theory and points of interest structures of disruptive business model will have important commitments in the field of disruptive innovation and financial service performance.

Many countries have implemented disruptive innovation elements as their source of encouraging innovative technologies, where growth strategies play a role in the competitive business change to driving technology transformation that further ventures into predicting growth outcomes (Rahi et al., 2017). Even though some studies are investigating the relationship between disruptive innovation and service performance, there is a limited investigation into how disruptive technology moderates this relationship. Between technology elements influence this relationship. Therefore, this is the gap that this study intends to address.

There is a powerful relationship between disruptive innovation and financial service performance. The disruptive innovation factors can be a focus on economic, environmental, and social for enhancing a financial service performance. Yet, the integration of disruptive technology as cost-benefit, compatibility, and complexity in the relationship between a disruptive business model in the value proposition, resources

accessibility, and business structure with disruptive innovation factors towards financial service performance has not been well discussed, and based on the knowledge of the researcher, study that investigates the relationship of disruptive innovation factors and financial service performance has not been conducted in UAE. In this case, there is a need to propose a disruptive innovation model that can be used as guidance to develop a future-ready innovation institution.

II. Literature Review

The implementation of disruptive innovation factors and financial service performance could aid the research on the assimilation of the basic factors of economic, environmental, and social. The research surmised that there are comparable significant factors or identified components of the Innovation Diffusion Theory and Technology Acceptance Model based on the relationship between disruptive innovation factors and financial service performance as a case study. The framework initiates within this study discerns disruptive innovation factors and financial service performance. This study devoted a practical connection between theoretical framework adoption and the relationship between disruptive innovation factors and financial service performance by reviewing previous research for the period of about seven (7) years particularly from 2015 to 2021 via acquiring a suitable relationship between the disruptive innovation factors and financial service performance indicator.

The theory summarizes the adaptation of disruptive innovation factors and financial service performance as a UAE case study in prospering the applicable conceptual model by perceiving coherent frameworks. A conceptual model is a characterization of a structure that practices ideas and concepts via style depiction (Hattie and Donoghue, 2016). The study had surmised that there are corresponding components of Innovation Diffusion Theory and Technology Acceptance Model elements with the precise model of disruptive innovation factors and financial service performance as a UAE case study as a vital balance with each other to sheer reliability model.

Considering disruptive innovation factors and financial service performance as a UAE case study, it can be ingrained within disruptive innovation factors via attaining an ambitious dominance such as Economic, Environmental and Social. This desire is the basic template for a peculiar disruptive innovation factor and financial service performance. The proposed conceptual model of disruptive innovation factors and financial service performance incorporates representations of both disruptive business models and disruptive technology, where financial service performance is on Market Performance, Efficiency Performance, and Risk-Related Performance.

The Innovation Diffusion Theory components are combined as significant measurements of relative advantages into action that indicates the cost efficiency of the organization (Rogers, 1962; Wonglimpiyarat and Yuberk, 2005), complexity focus on the understanding innovation for better performance ventures and actions of the organization (Rogers, 1962; Lee, 2021), traceability emphasis on the full adoption of the innovative ideas for business performance to optimize actions and response intelligently (Rogers, 1962; García-Avilés, 2020), observability focus on the innovation outcomes through communication sharing for business performance and context (Rogers, 1962; Dearing and Cox, 2018), compatibility is the establishment of the innovative ways for new ideas that are compatible for business performance (Rogers, 1962; Wonglimpiyarat and Yuberk, 2005) and innovation adoption as the degree of innovativeness that collects information of ideas, and knowledge (Rogers, 1962; García-Avilés, 2020).

In brief, the study has presumed assimilation of probable Technology Acceptance Model components that emerge out of the perceived usefulness that enhances business performance that indicates technological innovation that solves problems in the organization and creates value (Davis, 1989; Granić and Marangunić, 2019), perceived ease of use indicates the technology value that driven innovation for performance in the

organization (Davis, 1989; Al-Emran et al., 2018), behavioral intention to use indicates the technology using innovation idea that emphasis on the organization outcomes (Davis, 1989; Marakarkandy et al., 2017), and actual use that emphasis on the innovation attitude and intention for future insights (Davis, 1989; Rahi et al., 2017).

The existing disruptive innovation factors in Economics to be mapped with venture capitalists and knowledge sources for signifying Market Performance on financial service performance that focuses on market orientations (Rogers, 1962; Davis, 1989; Wonglimpiyarat and Yuberk, 2005; Granić and Marangunić, 2019; Granz, 2021; Mcnaughton, 2021). Environmental is to be mapped with government rules and market demand for signifying Efficiency Performance on financial service performance that focuses on leverage competencies (Rogers, 1962; Davis, 1989; Marakarkandy et al., 2017; García-Avilés, 2020; Kim et al., 2020; Nair and Jain, 2021).

Social is to be mapped with business strategy and organization value for signifying Risk-Related Performance on financial service performance that focuses on short and long-term (Rogers, 1962; Davis, 1989; Rahi et al., 2017; Loiacono and McCoy, 2018; Stocchi et al., 2019; García-Avilés, 2020; Bednarek et al., 2021; Manser et al., 2021).

The study conceptual model was refined from the above theoretical and conceptualization analysis from earlier research. This conceptual model perspective will be pre-assessed and associated along with the Innovation Diffusion Theory and Technology Acceptance Model as disruptive innovation factors and financial service performance as a UAE case study, as shown in Figure 1.

Based on Figure 1, the conceptual model of disruptive innovation factors will enhance financial service performance through market performance emphasis on market orientations, efficiency performance emphasis on leverage competencies, and risk-related performance emphasis on short and long-term. Literature exploration has been regulated using databases like Google Scholars, ScienceDirect, and Emerald on the field of disruptive innovation factors and financial service performance to get an overview of the disruptive innovation factors and financial

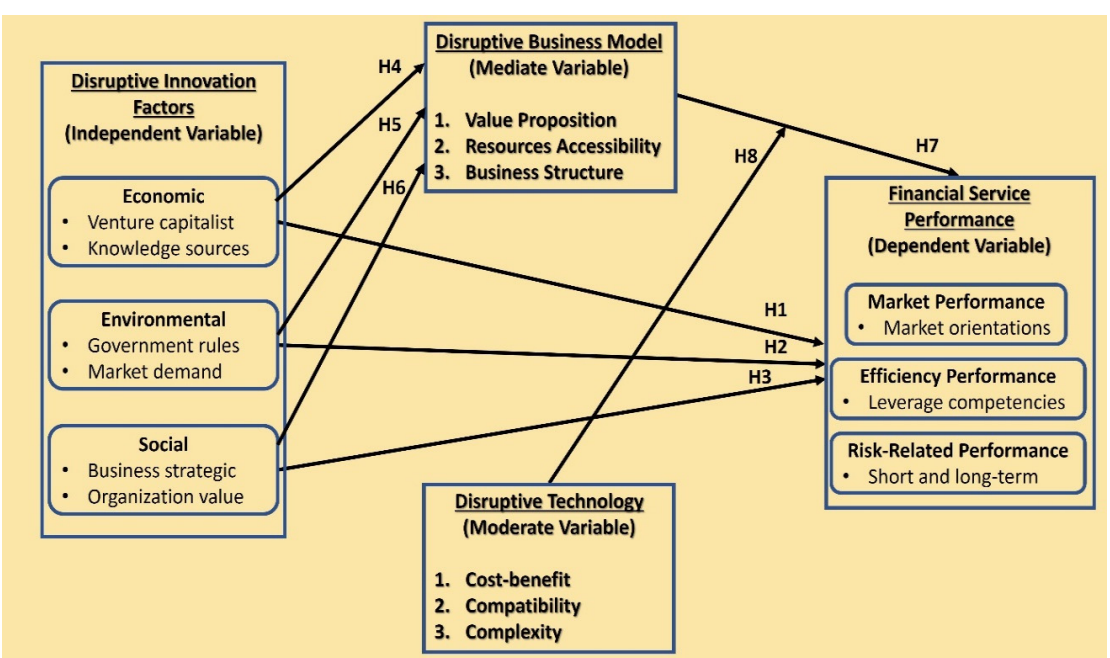

Figure 1. The Conceptual Model of Disruptive Innovation Factors and Financial Service Performance

service performance. This research presents an outline of the determining factors or compelling variables of disruptive innovation confer to the number of practices in diverse research. This outline comprises only variables that the research finds significant. The important variables become the factors of disruptive innovation. This research analysis's earlier study confers to disruptive innovation factors and financial service performance for the period of seven (7) years from 2015 to 2021 to gather an appropriate conceptual model indicator.

The conceptual model was refined from the above theoretical review of earlier research and conceptualization and independent variables are measured by economic factors (venture capitalist and knowledge sources), environmental factors (government rules and market demand), and social factors (business strategy and organization value). The independent variable is measured by the disruptive innovation factors and financial service performance. Therefore, the hypothesis for financial service performance is as follows:

H1: Economic factors have a positive, significant relationship with financial service performance.

The economic factors set up a structure for knowledge sources on understanding the organization's vision and venturing it for the future (Granz, 2021). Mcnaughton (2021) stated that innovation portfolios will increase performance activities for ensuring disruptive change that benefits business performance. Moreover, the new marketplaces and platforms are changing venture capitalist behavior. Thus, the enormous acceleration of economic growth brought by developing market economies and innovation. Disruptive innovation aspects in the economy point to the possibility of growth through generating new sources of venture capital and business funding for already-existing services in well-established markets (Avital et al., 2014; Glauner, 2016). Businesses use innovation portfolios, which are based on the performance activity of the firm itself, to put up the structure for their venture funds (Granz, 2021; Mcnaughton, 2021). To achieve sustainable growth in the future, business performance will be characterized by the interaction of internal knowledge with management strategies and the innovation role (Al-Dmour et al., 2021; Shu et al., 2021). Its emphasis is on venture capitalists, who have a wide range of resources for investments and start-up innovation and who promote knowledge sources for articulating the effects of innovation through internal knowledge. Therefore, economic factors have a positive, significant relationship with the financial service performance that diverse on venture capitalists and knowledge sources.

H2: Environmental factors have a positive, significant relationship with financial service performance.

The environmental factors are imperative to the government agenda for innovation development goals that will improve and review the business performance outcomes (Kim et al., 2020). Nair and Jain (2021) stated that political agendas will impact the development and resources for innovation and organizations need to specify the market demand for success. Where the introduction of government regulations into procedures for cooperation and communication. Besides acquiring knowledge of and incorporating market demand, successful value resources, and business capital and innovation. According to Pilkington and Dyerson (2006); Hughes et al. (2019), the definition of environmental factors, market demand for new market infrastructure, and diverse value talents that improve service performance will lead to higher business performance. Moreover, establishing a new company with a focus on government agendas and innovation potential affects government profitability and improves business performance (Kim et al., 2020; Nair and Jain, 2021). A company's market demand focuses on its long-term stability, performance shift in response to market disruption, and new business models for efficient methods to address market innovations (Sandberg, 2002; Das et al., 2018). It focuses on government regulations that establish starting-up regulations and discovers new market avenues for innovation by developing innovation projects and addressing market

demand for a new position in the business performance for generating market income through diversity innovation activities. Therefore, environmental factors have a positive, significant relationship with financial service performance that is diverse on government rules and market demand.

H3: Social factors have a positive, significant relationship with financial service performance.

The social factors impact business performance through strategies and values that will create dynamic innovation and communication for better outcomes (Mustafa, 2015). Ritch and McColl (2021) stated that social factors can impact performance development during the innovation approach and business strategies to overcome and guide them. Besides, increasing the value of an organization through being adaptable and networking. Moreover, applying a set of values, business models, and innovation to the development of a new corporate strategy. The social component focuses on innovative business methods that enhance performance by making organizational values more approachable in recognizing or responding to disruptive innovations (Christensen et al., 2006; Feldman, 2021). Thus, business tactics develop innovation paradigms for performance with additional value and efficient ways to order the insights obtained through innovative minds (Mustafa, 2015; Ritch and McColl, 2021). Furthermore, the development of innovation expands the market for thriving change-driven uncertainty and develops organizational values for greater performance (Bednarek et al., 2021; Manser et al., 2021). It focuses on the business strategy that links innovative views for performance forward and predictive value and organizational value that detected changes in the business performance that need to be solved with innovative solutions. Therefore, social factors have a positive, significant relationship with financial service performance that is diverse in business strategy and organizational value.

H4: Economic factors have a positive, significant relationship with the disruptive business model.

The economic factors influence the capitalist value that drives innovation in its cost for revenue growth through a disruptive business model (Al-Dmour et al., 2021). Shu et al. (2021) stated that a disruptive business model plays a vital role in the performance growth of an organization and drives the business for transformation in revenue. Moreover, the business model must be reinvented to achieve a value proposition that produces new profit revenues. Thus, enhancing solutions and altering value chain stages that effectively boost performance. The value proposition has significantly altered an organization's business model to achieve its performance transaction (Ramdani et al., 2020; Zutshi et al., 2021). Yet, recognize the potential and availability of resources for economic value, then put those changes into action quickly to improve business performance (Acquier et al., 2019; Ramdani et al., 2020). Besides, integrating innovation into the company model to improve output and value generation. Access to resources is necessary for developing and seizing revenue streams that grow as a result of the innovative business model environment. Therefore, economic factors have a positive, significant relationship with the disruptive business model that diverse venture capitalists and knowledge sources.

H5: Environmental factors have a positive, significant relationship with the disruptive business model.

The environmental factors gain information about the business model structure that needs a deeper understanding of the disruptive context for improving the business performance (Das et al., 2018). Falkheimer and Sandberg (2018) stated that environmental factors directly impact the disruptive business model for resources available in terms of market demand that optimize the business performance. Moreover, putting the structuring practise into practise within the company to boost revenue growth. Thus, modifying the organizational structure to support innovation-driven performance change. The business structure focuses

on the value orientation of the company and creates an improvement action plan (Schiavi and Behr, 2018; Mishra and Tripathi, 2020). Financial institutions need disruptive business models to spur economic growth by developing and implementing fresh concepts and innovations in their operations (Carbó-Valverde et al., 2021). However, the business model plays a significant role in specialized knowledge that generates innovation and meets market demands, raising awareness regarding disruptive business models among financial firms (Hinterhuber and Nilles, 2021). The main platform for developing innovations and improving higher success for venture chances is the disruptive business model. Therefore, environmental factors have a positive, significant relationship with the disruptive business model that is diverse on government rules and market demand.

H6: Social factors have a positive, significant relationship with the disruptive business model.

The social factors focused on improving the organization's value for the market decision that will impact the business performance and revenue growth (Bednarek et al., 2021). Manser et al. (2021) stated that organizations must be well aware of disruptive business models that can leverage business performance for values and future actions. To examine the future growth of the business performance and attract a worldwide audience, financial firms need a disruptive business model. The value of the company is concentrated on the market transition that boosts current performance through innovation and disruptive innovations. Therefore, financial companies require ongoing innovation and change that aid in the process of improving corporate success (Olabode et al., 2022). Therefore, financial firms must possess a certain business model structure that can enhance the influence of innovation on business success (Caputo et al., 2021). Financial institutions can also adapt to the evolving technologies and consumer preferences that reshape markets and give rise to new services (Atca Gorgun and Wolfs, 2021). Corporate strategies proactively respond to the social component to deal with business issues that result in protracted innovation and push for disruptive times. Therefore, social factors have a positive, significant relationship with the disruptive business model that is diverse in business strategy and organizational value.

H7: Disruptive business models have a positive, significant relationship with financial service performance.

The disruptive business model strongly influences the value proposition of an organization that generates new profit revenue through solutions and steps effectively (Ramdani et al., 2020). Resources accessibility emphasizes value creation that executes the rapid changes of the resources and retrieves information for optimizing the business performance (Acquier et al., 2019). Mishra and Tripathi (2020) state that business structure can increase the revenue growth of the business through a proper plan and operation practice.

The disruptive business model had driven the efficacy and enhanced the innovation in the financial organization. Market demand is at the fore of value drivers that take advantage of low-cost advantages and rush upwardly for less expensive solutions (Naimi-Sadigh et al., 2021). Additionally, disruptive business models offer strategic guidance that upholds the company's perspective on the changing external environment and understanding of the organization's future management ideals (Pu et al., 2021). Disruptive business models are mostly required to communicate the company's performance, which promotes a favorable environment throughout the entire organization (Nair and Jain, 2021). Disruptive business models are associated with superior corporate performance that emphasizes imaginative thinking and changes the innovation process. Therefore, the disruptive business model has a positive, significant relationship with the financial service performance that strives to generate dynamic business performance towards innovation and appliances.

H8: Disruptive technology has a positive, significant relationship moderate between disruptive business

models and financial service performance.

Disruptive technology indicates the cost-benefit that critical implementation decisions on the business performance for high-cost decisions and situations (Stright et al., 2022). Compatibility needs to be embedded as action and comparing the benefits for high performance that features dynamic innovation and efficient operation for a better outcome (Chang et al., 2020). Dedehayir et al. (2014) stated that complexity will emphasize disruptive dynamics that change the levels of business operation and performance through the rapidly changing technology revolution. As a result, disruptive technology must be considered as a tool for the success of financial services performance that implements innovation, strategy, and competitive edge. Financial institutions need to be aware of the technological innovations that can improve their company performance as disruptive technology develops (Hongdao et al., 2019; Stright et al., 2022).

Moreover, an advantage opportunity for cost-benefit implementation that affects the performance importance as well as a new market potential (Chang et al., 2020; Schmidthuber et al., 2020). Yet, the ability to make superior decisions for products with high market worth exceeds the compatibility (Kamolsook et al., 2019). Furthermore, disruptive technology influences market demand through irreversible demand, emphasizing business performance for innovation adoption that generates distinctive value. Therefore, disruptive technology has a positive, significant relationship moderate between disruptive business models and financial service performance that opens possibilities to change the business performance and increase its innovation value.

III. Methodology

The research process was conducted where a lot of factors were being considered as the component of evaluation (information assortment), the time dimension, and the focus of research (orientation). The procedure of study design is somewhat like the process of architecture design where the skills of the architecture can be manifested on a block of concrete and tangible performance such as buildings or constructions (Sekaran, 2016). The research process begins with issues identification, trailed by study questions and goal evolution, and afterward information assortment and evaluation (Yin, 2003). As a result, this study's methodology was divided into three (3) phases: Phase 1 (Field Study, Questionnaire Development, and Literature Review), Phase 2 (Statistical Analysis, Survey Data Analysis, Data Collection, and Distribution), and Phase 3 (Evaluation of the Research Objectives).

Phase one included reviewing current and previous studies by determining the suitable literature about the research fluctuation from the relationship between the disruptive innovation factors and financial service performance. Therefore, the theoretical framework from a combination of Innovation Diffusion Theory and the Technology Acceptance Model was adapted for the development of a conceptual model for this thesis. Questionnaires were refined based on the current and previous literature on the connection context between disruptive innovation factors and financial service performance. Within phase two, an online survey questionnaire was distributed to respondents. Data collected were discussed. The statistical analysis was conducted to determine answers for the proposed research objectives.

Data Analysis was the last component of this stage. Last, stage three comprised the evaluation of research objectives. This stage conferred the finish of the thesis. The research likewise detailed the commitment of the knowledge toward the field and community, the limits of the research, and the direction for future study.

A. Data Collection Procedure

Exploratory factor analysis (EFA) will be used in this paper by performing extraction and rotation to get the factor loading that related to the questionnaire. EFA will helps in explaining the exploratory research.

The result from the multi regression analysis will help explain which variable gives the most significant value in determining the disruptive innovation factors of financial service performance.

The quantitative method will be performed, where primary data will get from feedback from financial group in UAE. From the data, an analysis process will be conducted to study the relationship between variables. This process is performed to validate the model and finding the reliability of the measurement. The research obtained 315 respondents among executive banking officers at Mohammed Bin Rashid Centre for Government Innovation located in Abu Dhabi.

Executive banking officers are responsible for the day-to-day management that develops business methodologies and plans guaranteeing their arrangement with long-term and short-term goals in UAE. Also, these executive banking officers are the most exposed to disruptive innovation due to their frequent involvement in financial service performance.

The samples were selected from executive banking officers at Mohammed Bin Rashid Centre for Government Innovation located in Abu Dhabi. The total number of executive banking officers is about 40000 approximately as reported by the UAE National Innovation Strategy 2021.

To facilitate information assortment, the focus of this study narrowed down to target the executive banking officers at Mohammed Bin Rashid Centre for Government Innovation. The main reason for targeting executive banking officers at Mohammed Bin Rashid Centre for Government Innovation is because executives baking officers are more aware of disruptive innovation issues and financial service performance. After all, they involve extensively in disruptive innovation issues during their daily operations and show their tendency to demonstrate against the financial service performance.

B. Scale Development

The research operationalized a quantitative approach utilizing a survey to attain data from respondents. The quantitative method has been widely used for a long time, indicating a precise empirical analysis of social development toward numerical, mathematical, or computational techniques or statistical data (Kothari et al., 2014). The quantitative method design depends on the objective view and it follows the positivism paradigm with value-free measurement (Yin, 2003). In the same sense, the use of quantitative methods allows the study to examine the model fit of the conceptual framework and measure the relationships between the variables. Quantitative research has various purposes. The main purposes of quantitative research are to precisely segregate causal and effect, accurately operationalize theoretical relations, quantify and measure phenomena, produce research with generalized findings, and develop general laws (Creswell, 2013). It includes experiments, quasi-experiments, causal relationships, the large size of samples, hypotheses testing, and others (Mazhar et al., 2018). Moreover, a survey or evaluation is the technique for quantitative research, yet for qualitative research, the technique is perception or interview. Besides, the idea of information in the quantitative is variables, while the idea of information in the qualitative is words.

A set of questionnaires was used to conduct a self-administered survey to obtain data from the chosen participants. There was no need to interpret the survey in the local Arabic language because the chosen participants are literate and can understand and read the English language. The questionnaire had five (5) sections: Section one (1) was on the Demographic Profile of participants focusing on their personal information such as age, gender, working experience, nationality, type of banking sector, banking category, current position, level of disruption innovation, success rate and type of disruptive innovation, Section two (2) was on disruptive innovation factors in financial sector, where Independent Variables (IV) were economic, environmental, and social, Section three (3) was on Disruptive Business Model containing questions on Mediator Variables (MV); value proposition, resources accessibility and business structure, Section four (4) was on Disruptive Technology

measuring the Moderating Variables (MDV) namely cost-benefit, compatibility, and complexity and Section five (5) was on Financial Service Performance including questions related to the Dependent Variables (DV) namely market performance, efficiency performance and risk-related performance, as expressed in Table 1.

C. Mediating Analysis

This research has heeded the methodology utilized by Sekaran (2016), regarding mediating analysis that guides the path coefficient among IV and DV which should be compelling while barring a mediating variable. While the mediating variable is incorporated, it should be inspected if the implied response of path coefficients among DV and Mediator as well as Mediator and IV are compelling. The mediating analysis introductory the variable is done influencing the result variable. The mediation brought about by the mediator variable is created as a mediation model. This situation is critical but not enough to regulate if both directions between Mediator and DV and also IV and Mediator are considered compelling.

Therefore, the implied connection that subsists among IV and DV through the mediating variable was surveyed by utilizing the SmartPLS algorithm. The SmartPLS algorithm is an arrangement of regression in terms of weight vectors. SmartPLS algorithm plays out a correlation that makes the outcomes steady with a factor model. Thus, the analysis fills in as a diagnostic for conceivable overfitting of the PLS path model to the training data. The bootstrapping technique was utilized for laying out the meaning of both direct and indirect impacts (path coefficient) given t-statistics and p-values. Also, it resamples a dataset with a substitution that is pertinent to the statistical learning method.

Table 1. Functional estimate for questionnaire

Segment	Contrive	Functional Estimate	References
1	Demographic Profile of Participant	Individual data on age, gender, working experience, nationality, type of banking sector, banking category, current position, level of disruption innovation, success rate, and type of disruptive innovation.	(Saunders et al., 2009; Sekaran, 2016; Saunders et al., 2018)
2	Disruptive Innovation factors in Financial Sector (Independent Variable)	**1. Economic** Venture capitalist Knowledge sources **2. Environmental** Government rules Market demand **3. Social** Business Strategic Organization value	(Pilkington and Dyerson, 2006; Christensen et al., 2006; Avital et al., 2014; Mustafa, 2015; Glauner, 2016; Das et al., 2018; Hughes et al., 2019; Al et al., 2021; Nair and Jain, 2021; Feldman, 2021; Granz, 2021; Manser et al., 2021)
3	Disruptive Business Model (Mediating Variable)	Value Proposition Resources Accessibility Business Structure	(Schiavi and Behr, 2018; Acquier et al., 2019; Mishra and Tripathi, 2020; Ramdani et al., 2020; Ramdani et al., 2020; Zutshi et al., 2021)
4	Disruptive Technology (Moderating Variable)	Cost-benefit Compatibility Complexity	(Pattinson and Woodside, 2008; Dedehayir et al., 2014; Hongdao et al., 2019; Chang et al., 2020; Schmidthuber et al., 2020; Stright et al., 2022)
5	Financial Service Performance (Dependent Variable)	**1. Market Performance** Market orientations **2. Efficiency Performance** Leverage competencies **3. Risk-Related Performance** Short and long-term	(Owusu et al., 2019; Nguyen et al., 2021; Zhao et al., 2021)

D. Moderating Analysis

This research has obeyed the procedure utilized by Sekaran (2016), regarding moderating analysis that guides the path coefficient among IV and DV which should be compelling while barring a moderating variable. When the moderating variable is incorporated, it should be examined if the implied response of path coefficients among Moderator and DV as well as IV and Moderator are compelling.

A moderation analysis is an activity of external validity in that the question is how all-inclusive the causal impact is.

This situation is crucial but not enough to regulate if both directions between Moderator and DV and IV and Moderator are deemed compelling. Choosing which variable is the moderating depends on a huge part of the researcher's interest. Therefore, the implied relationship that exists between IV and DV through the moderating variable was assessed by employing the SmartPLS algorithm. Moderating connections are hypothesized earlier by the researcher and explicitly tested. The bootstrapping technique was utilized for laying out the meaning of both direct and indirect impacts (path coefficient) given t-statistics and p-values.

IV. Findings

A. Demographic Analysis

This section gave the demographic characteristics including personal information of the respondents to the survey questionnaire from the financial organization in the UAE. A total of 500 questionnaire survey was distributed to a different department, only 315 survey was valid giving a response rate of 63%. The demographic characteristics including the personal information of the respondents were presented in Table 2. There were 263 male respondents, representing 83.4% of the total sample distributed; female respondents comprised 16.6 % (N= 52) of the sample and the majority of them have bachelor with a percentage of 51%. The majority of the respondents have experience ranging from 5-10 years with a percentage of 71%, meanwhile, 84% of the respondents were UAE citizens. The majority of the respondents were from private banks with 52% compared to 48% from public banks.

Based on the banks, most of the respondents were from Islamic banks with about 51%. Most of the respondents were officers with about 53%. And the majority of the respondents about 38% stated that the disruptive innovation rate in their banks was at Level 2- Disruptive innovations live on micro-markets. In addition, creating a new business model for the existing market was the highest type of innovation with a percentage of 26% and with a success rate between 61%-80% as stated by 29% of the respondents.

B. Multicollinearity

Multicollinearity issues are evident where the correlation between two or more independent variables is high. Potential multicollinearity between the variables could be determined by testing the variance of inflation factors (VIF). It describes that VIF reflects the presence of collinearity among independent variables based on the tolerance of 0.20 or lower and ten or higher VIF values. The independent variables show VIF within the threshold (0.20-10.00). Hence, it could be concluded that no multicollinearity issues were found among the variables.

C. Path Coefficients

The path coefficient is a measure of the strength and significance of the relationship between two latent variables. The path coefficient was also used to evaluate the study’s structural model. The "bootstrapping" technique in Smart-PLS was used to evaluate the relationships (paths) between the independent and dependent variables. T statistics and p-values were used to verify the significance of the paths between these

Table 2. Personal profile of respondents

Variables		Number	Percentage
Gender	Male	263	85%
	Female	52	15%
Age	18-24	13	4.2%
	25-34	125	38.7%
	35-44	128	41.3%
	45-54	45	14.5%
	55-64	4	1.3%
How long you have been working in the banking sector	Less than 5 year	55	16.1%
	5-10	223	71.9%
	11-20	15	4.8%
	More than 20	22	7.1%
Nationality	Non- UAE Citizen	50	14.5%
	UAE Citizen	265	85.5%
What type of banking sector you are currently employed in	Public Sector	150	48.4%
	Private Sector	165	51.6%
What type of banking category you are currently employed in	Commercial Bank	75	24.2%
	Industrial Banks	45	14.5%
	Merchant Banks	35	9.7%
	Islamic Banks	160	51.6%
What is your current position in the banking sector	Senior Executive	44	14.2%
	Executive Level	78	25.2%
	Officer Level	166	53.5%
	Clerical Level	27	7.1%
What is the level of disruption innovation traits in your bank?	Level 1- Disruptive innovation is hard to integrate	79	25.5
	Level 2- Disruptive innovations live on micro-markets	120	38.7
	Level 3- Disruptive innovation can't be calculated	33	10.6
	Level 4- Disruptive innovation does not grow on	33	10.6
	Level 5- Disruptive innovation does not fit into the market	22	7.1
What type of disruptive innovation that you encounter frequently in the banking market?	Improvement to sustain the position in an existing market	55	17.7%
	Continuous improvement of existing products and services	45	14.5%
	Transforming technology that creates a new market	75	24.2%
	Creating a new business model for the existing market	82	26.5%
	Less than 20%	50	16.1%
What is the success rate of disruption innovation in your bank?	Between 21%-40%	40	12.9%
	Between 41%-60%	75	24.2%
	Between 61%-80%	92	29.7%
	Between 81%-100%	53	17.1%

variables. Hair et al. (2014) described the coefficient as significant at the determined confidence level when the empirically obtained statistical t-value is higher than the critical value. In this case, the t-value of 0.95 was applied at the significance level of 0.05.

The bootstrapping technique in PLS-SEM (Hair

et al., 2014) is a nonparametric statistical test that measures whether the estimated path coefficients are significant. Coefficients range between -1 and +1, where path coefficients close to +1 show a substantial relationship and vice-versa. The results presents the empirically measured t-values, p-values, and path coefficient values between variables in the present study, determining whether the hypothesis is accepted or rejected based on the path assessments. As shown, all hypotheses were supported at the 0.05 significance level.

D. Hypotheses Testing

This study's hypotheses were tested based on the results of the PLS-SEM on the structural model. The path coefficients, t-values, and p-values at the significance level of 0.05 were evaluated to test the hypothesis.

Based on these values, all of the hypotheses were accepted. As discussed, 18 hypotheses were formulated on the direct and indirect relationships among the variables. The result of each hypothesis is shown below:

H1: There is a significant positive relationship between Business Models and Financial Performance

The result shows that the value of the path coefficient between the Business Model and Financial Performance is 0.259. As the t-value is 5.015, higher than the critical value of 1.96 as well as the p-value of 0.000, which is smaller than the threshold of 0.05, the results show that the path coefficient is significant. Hence, there is a significant positive relationship between Business Models and Financial Performance. This result provides sufficient empirical evidence to accept hypothesis H1.

H2: There is a significant positive relationship between disruptive economy and business model

The result shows that the value of the path coefficient between the disruptive economy and the business model is 0.043. As the t-value is 0.817, lower than the critical value of 1.96 as well as the p-value of 0.414, which is higher than the threshold of 0.05, the results show that the path coefficient is not significant. Hence, there is no significant positive relationship between a disruptive economy and a business model. Therefore, H2 was rejected.

H3: There is a significant positive relationship between a disruptive economy and financial performance

The result shows that the value of the path coefficient between disruptive economy and financial performance is 0.145. As the t-value is 2.314, higher than the critical value of 1.96 as well as the p-value of 0.021, which is smaller than the threshold of 0.05, the results show that the path coefficient is significant. Hence, there is a significant positive relationship between a disruptive economy and financial performance. This result provides sufficient empirical evidence to accept hypothesis H3.

H4: There is a significant positive relationship between disruptive environment_ and business model

The result shows that the value of the path coefficient between the disruptive environment and the business model is 0.639. As the t-value is 12.447, higher than the critical value of 1.96 as well as the p-value of 0.000, which is smaller than the threshold of 0.05, the results show that the path coefficient is significant. Hence, there is a significant positive relationship between a disruptive environment and a business model. This result provides sufficient empirical evidence to accept hypothesis H4.

H5: There is a significant positive relationship between a disruptive environment_ and financial performance

The result shows that the value of the path coefficient between disruptive environment_ and financial performance is 0.233. As the t-value is 2.616, higher than the critical value of 1.96 as well as the p-value of 0.009, which is smaller than the threshold of 0.05, the results show that the path coefficient is significant. Hence, there is a significant positive relationship between a disruptive environment and financial performance. This result provides sufficient empirical evidence to accept hypothesis H5.

H6: There is a significant positive relationship between disruptive social and business model

The result shows that the value of the path coefficient between disruptive social and business models is 0.112. As the t-value is 2.8, higher than the critical value of 1.96 as well as the p-value of 0.005, which is smaller than the threshold of 0.05, the results show that the path coefficient is significant. Hence, there is a significant positive relationship between disruptive social and business models. This result provides sufficient empirical evidence to accept hypothesis H6.

H7: There is a significant positive relationship between disruptive social and financial performance

The result shows that the value of the path coefficient between disruptive social and financial performance is 0.155. As the t-value is 3.398, higher than the critical value of 1.96 as well as the p-value of 0.001, which is smaller than the threshold of 0.05, the results show that the path coefficient is significant. Hence, there is a significant positive relationship between disruptive social and financial performance. This result provides sufficient empirical evidence to accept hypothesis H7.

H8: There is a significant positive relationship between disruptive technology and financial performance

The result shows that the value of the path coefficient between disruptive technology and financial performance is 0.149. As the t-value is 2.459 higher than the critical value of 1.96 as well as the p-value of 0.014, which is smaller than the threshold of 0.05, the results show that the path coefficient is significant. Hence, there is a significant positive relationship between disruptive technology and financial performance. This result provides sufficient empirical evidence to accept hypothesis H8.

E. Coefficient of Determination (R^2)

Coefficient of determination (R^2) value is used to explain the amount of variance in the dependent variable caused by the independent variables. The higher R^2 values indicate the predictive ability of the structural model. However, the strength of R^2 values depend upon the complexity of the research model and the type of discipline (Hair et al., 2014). For example, R^2 values for endogenous latent variables are assessed as follows: 0.26 (substantial), 0.13 (moderate), and 0.02 (weak) (Cohen, 1988). On the other hand, R^2 values should be equal to or greater than 0.10 for the variance explained by a particular endogenous construct deemed adequate (Falk and Miller, 1992).

Table 3 presents the results of the PLS algorithm analysis. It could be observed that 52.4% of the variance in the Business Model is explained by disruptive economy, environmental and social factors, meanwhile, almost 60% of the variance in financial performance is explained by disruptive economy, environmental, social factors, and disruptive technology. Based on the results, all R^2 values are higher than the cut-off value of 0.02. Thus, the model has adequate predictive power for financial performance.

Table 3. Coefficient of determination

Variable	R-square	Result
Disruptive Business Model	0.524	Substantial
Financial Performance	0.597	Substantial

F. Effect Size (f^2)

In this regard, f^2 of 0.02-0.14 is considered weak, 0.15-0.34 is moderate, and 0.35 or higher shows a strong effect. Table 4 presents the results of model fitness through f^2 and the values obtained for each path.

G. Evaluation of Mediator

Hypotheses 9-11 state that the business model mediates the relationship between disruptive economy, environmental, and social factors, and financial performance. In this regard, the two-step empirical investigations were conducted in PLS to examine the mediating effect based on the indirect effect between independent and dependent variables via a mediating variable. The first step involves applying path coefficients, t-statistics, and p-value to verify the significance of direct and indirect effects. This is followed by calculating the VAF (variance accounted for) value to determine whether the mediation role is full, partial, or none. In this study, VAF was estimated by dividing the indirect effect by the total effect.

H. Hypotheses Testing For Mediating Relationships

A mediating variable is a variable that comes between an independent variable (IV) and a dependent variable (DV) in a cause-effect relationship and allows the relationship to be better explained. A mediating effect occurs when the relationship between two variables can be interpreted by looking at a third variable, and the mediator variables speak to how or why such effects occur" (Baron and Kenny, 1986). To establish the mediation effect, the following conditions must hold: (i) the IV must significantly affect the DV, (ii) the IV must significantly affect the mediator, (iii) the mediator must significantly affect the DV, and (iv) when paths a and b are controlled for, the effect of the IV on the DV must less than in the first equation (c < c, partial mediation) or be insignificant (full mediation) (Baron and Kenny, 1986).

However, more recent researchers have pointed out the conceptual and methodological problems with Baron and Kenny's (1986) approach (Hayes, 2013). For example, Zhao et al. (2010) offered a synthesis of prior research on mediation analysis and corresponding guidelines for future research. The authors characterized two types of non-mediation: direct-only non-mediation (the direct effect is significant but not the indirect effect) and no-effect non-mediation (neither the direct nor indirect effect is significant). They also identified three types of mediation: complementary mediation (the indirect and direct effects are both significant and point in the same direction), competitive mediation (the indirect and direct effects are both significant and point in opposite directions), and indirect-only mediation (the indirect effect is significant but not the direct effect). Mediation may not exist at all (direct-only non-mediation and no-effect non-mediation) or, the mediator construct accounts either for some (complementary and competitive mediation) or all of the observed relationship between two latent

Table 4. The f^2 Values for Each Path

Path	Effect size	Results
Business Model -> Financial Performance	0.297	Weak effect
Disruptive Economy -> Business Model	0.040	Weak effect
Disruptive Economy -> Financial Performance	0.018	Weak effect
Disruptive Environment_ -> Business Model	0.072	Weak effect
Disruptive Environment_ -> Financial Performance	0.028	Weak effect
Disruptive Social -> Business Model	0.026	Weak effect
Disruptive Social -> Financial Performance	0.307	Moderate
Disruptive Technology -> Financial Performance	0.018	Weak effect

variables. Nevertheless, Zhao et al. (2010) procedure closely corresponds to Baron and Kenny's (1986) concept of partial mediation and full mediation.

This study employed Baron and Kenny's (1986) approach in testing the mediating effect of user satisfaction on the relationships between system quality, interaction quality, information quality system, and continuance intention to use M-health. According to Baron and Kenny (1986), the following conditions have to be met to allow empirical tests to perform mediation analysis:

- Direct effect (path coefficient between DV and IV) should be significant when excluding the mediating variable.
- When the mediating variable is included, it needs to be checked if the indirect effect (product of path coefficients between mediator and DV as well as IV and mediator) is significant. This condition is crucial (but not sufficient) to determine if both paths (between mediator and DV and IV and mediator) are deemed significant.
- To what extent can the direct effect absorb the indirect effect? This helps to know if there is a full, partial, or no mediation effect.

The indirect relationship that exists between independent variables (IV) and dependent variable (DV) via mediating variable was assessed by employing the Smart PLS algorithm. The bootstrapping method was employed for establishing the significance of both indirect and direct effects (path coefficient) based on p-values and t-statistics. Measurement of the VAF value was done for establishing the strength of the mediation effect (for example, partial, full, or no mediation).

I. Mediating Analysis

Testing for the type of mediation in a model requires running a series of analyses. The first step addresses the significance of the indirect effect (Disruptive Environment → Financial Performance) and (Disruptive Environment → Business Model) via the mediator variable (Business Model). If the indirect effect is not significant, this means that (Business Model) does not function as a mediator in the tested relationship. The results provide empirical support for a hypothesized mediating relationship, further analysis of the direct effect (Disruptive Environment → Financial Performance) can point to undiscover mediators. Specifically, if the direct effect is significant, this means that there may be an omitted mediator, which potentially explains the relationship between (Disruptive Environment → Financial Performance). If the direct effect is also nonsignificant (no-effect non-mediation), then the theoretical framework is flawed, and go back to theory and reconsider the path model setup.

1. Disruptive Environment→Business Model →Financial Performance

Table 5 presents the findings where the indirect effect (Disruptive Environment_ -> Business Model -> Financial Performance) is significant (p-value = 0.165 and t-value = 4.319) and the direct effect between Business Model→ Financial Performance is also significant (p-value = 0.000 and t-value = 4.687). Both direct effect and indirect effect point in the same direction which means the Disruptive Business Model is a partial mediator between the Disruptive Environment and Financial Performance (Hair et al., 2014).

Table 5. Disruptive Environment→ Business Model → Financial Performance

Path	Path coefficient	t-statistics	p-values	2.50%	97.50%
DisruptiveEnvironment→Financial Performance Direct Effect	0.399	4.619	0.000	0.220	0.557
Disruptive Environment→ Business Model Direct Effect	0.639	12.780	0.000	0.531	0.736
Business Model→ Financial Performance Direct Effect	0.259	4.687	0.000	0.152	0.362
Disruptive Environment→ Business Model → Financial Performance (Direct effect)	0.165	4.319	0.000	0.094	0.241

2. Disruptive Social -> Business Model -> Financial Performance

Table 6 presents the findings where the indirect effect (Disruptive social_ -> Business Model -> Financial Performance) is significant (p-value = 0.029 and t-value = 2.527) and the direct effect between Business Model→ Financial Performance is also significant (p-value = 0.000 and t-value = 4.687).

Both direct effect and indirect effect point in the same direction which means the Disruptive Business Model is a partial mediator between the Disruptive Environment and Financial Performance (Hair et al., 2014).

3. Disruptive Technology as Moderator between Business Model and Financial Performance

Table 7 presents the moderator model which includes the moderating effect of Disruptive Technology on the relationship between the Business Model and Financial Performance estimated through a two-stage approach using SmartPLS. Since the value of the positive value of moderating effect (0.086) suggested that Disruptive Technology positively strengthened the relationship between Business Models and Financial Performance. This value explained that an increase of one-unit standard deviation in disruptive technology is likely to positively enhance the relationship between Business Model and Financial Performance by a value of 0.066 or 6.6 percent. The value of moderating effect was further testified for significance through bootstrapping function of the SmartPLS. Table 7 and Figure 2 shows that the moderating effect is significant at 0.05 level of confidence (t-value = 2.220 and p-value = 0.027). Since these values have proved the significance of the moderating effect of Disruptive Technology on the relationship between Business Models and Financial Performance.

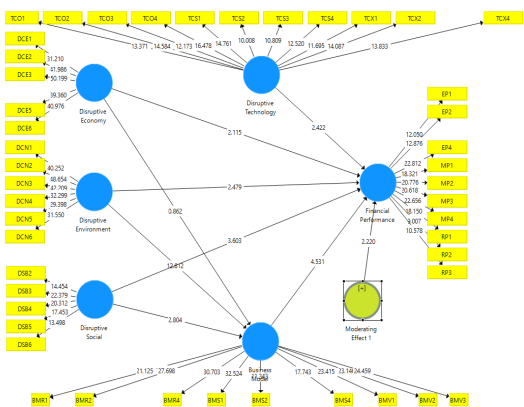

Figure 2. Bootstrapping with Moderator

Table 6. Disruptive Social -> Business Model -> Financial Performance

Path	Path coefficient	t-statistics	p-values	2.50%	97.50%
Disruptive Social→ Financial Performance Direct Effect	0.184	4.619	**0.000**	0.220	0.557
Disruptive socialt→ Business Model Direct Effect	0.112	2.784	**0.006**	0.097	0.270
Business Model→ Financial Performance Direct Effect	0.259	4.687	**0.000**	0.152	0.362
Disruptive socialt→ Business Model → Financial Performance (Indirect effect)	0.029	2.527	**0.012**	0.009	0.054

Table 7. Significance of moderating effect of disruptive technology over business model & financial performance

Path	Path coefficient	t-value	p-value
Moderating Effect→ Disruptive Technology	0.066	2.220	**0.027**
Business Model → Financial Performance	0.246	4.531	**0.000**
Disruptive Technolog→ Financial Performance	0.145	2.422	**0.016**

V. Summary

This chapter contained the data analysis through empirical findings and a discussion about the hypothesis of the present study. SmartPLS software version 3.2.8 has been used as a tool for the analysis of the data for this study. The data analysis included an assessment of the measurement model and structural model. The empirical results are presented in the form of tables and figures to report the significance of the parameters for both direct and indirect relationships among variables proposed in this study. Finally, hypothesis testing, mediation, and moderation analysis have been discussed.

VI. Conclusion

This study aims to propose a disruptive innovation model that can be used as guidance to develop a future-ready innovation institution in the UAE. To develop this model, take into consideration the mediating effects of the disruptive business model and the moderating effect of disruptive technology. Disruptive innovation in this study refers to innovation and strategizing their services or products to appeal to their most formidable and beneficial market environment. In this case, the understanding of the disruptive innovation factors that influence financial service performance is framed within the innovation diffusion theory as it guides the understanding of the impact on progress, social change, and development; hence this disruptive innovation model is the most appropriate in a competitive environment. Further, the technology acceptance model also provides insights into the transformation of financial service performance. Contextualized within the socio-cultural environment of the Arab countries, namely the UAE, this study is significant considering the UAE government is focusing on becoming the next big technology start-up hub, though they are struggling to develop disruptive innovation. Further, the need to develop disruptive innovation in its nation is consistent with the global transformation towards a digital economy and knowledge-based economy driven by the industrial revolution (IR) 4.0. For this purpose, four research questions have been constructed to test eight hypotheses: Three hypotheses were constructed to test the direct relationship between the three constructs, one hypothesis to test the significance of the moderating relationship between three constructs (cost-benefit, compatibility, and complexity) and one hypothesis to test the significance of the mediating relationship between the three constructs (disruptive innovation factors, disruptive business model, and financial service performance).

A quantitative research approach was adopted to gather data through a survey. For this purpose, questionnaires collected from 315 respondents identified as executive banking officers at Mohammed Bin Rashid Centre for Government Innovation located in Abu Dhabi were analyzed through PLS-SEM. A structural model was used to test the eight hypotheses. The analyses demonstrate the association of disruptive innovation factors such as economic, environmental, and social with market performance, efficiency performance, and risk-related performance for financial service performance. The final analysis was done through the structural model in factor loadings after the elimination of invalid items. Finally, a structural model was developed, and the results of the eight hypotheses have been rigorously discussed. It was found that the disruptive business model denotes a good indicator as a mediator variable and has proven to have partial mediating effects on the relationship between disruptive innovation factors and financial service performance. Further, disruptive technology has been proven to have a moderating effect on the relationship between disruptive innovation factors and financial service performance.

The purpose of this study was to propose a disruptive innovation model that can be used as guidance to develop a future-ready innovation institution in the UAE. A research framework consisting of three independent variables, namely disruptive innovation

factors, disruptive business model, and disruptive technology, and one dependent variable, which is the financial service performance has been conceptualized. The innovation diffusion theory and technology acceptance model provided the theoretical basis of the framework of the model. To validate and empirically test this model, eight hypotheses consisting of three direct relationships of the independent variables and dependent variables respectively have been tested. Additionally, one hypothesis is to empirically tests the mediating effect of the disruptive business model, and one hypothesis is to empirically test the moderating effect of the disruptive technology.

The quantitative findings have highlighted the significance of disruptive innovation factors, disruptive business models, and disruptive technology on financial service performance. Concerning the path coefficient relationship, although they have a significant relationship, the disruptive technology has a strong effect, while the other two have a weak effect. This indicates that disruptive technology is essential for financial service performance. It was also found that a disruptive business model partially mediates the relationship between disruptive innovation factors and financial service performance, while disruptive technology moderates the relationship between disruptive innovation factors and financial service performance.

To sum up, in the context of UAE financial institutions from Abu Dhabi, the disruptive innovation usage in the business has benefited the financial service performance. From the finding, the 0.246 path coefficient in the disruptive business model can be interpreted from the disruptive innovation factor to financial service performance. This is the effect of the endeavors and activities of the government associations and the expanding mindfulness among financial institutions themselves. Yet disruptive technology has a moderating effect as a 0.066 path coefficient indicates cost-benefit, compatibility, and complexity for the financial service performance. For that, this research supported the initiatives on disruptive innovation programs as stated in UAE procedure for the fourth industrial revolution (4IR), the emirates blockchain strategy 2021, national agenda vision 2021 and to turn out to be a high-income country as depicted in UAE economic report 2018 by expanding the profitability through creativity in dealing with the innovation through several recommendations as to the useful implications to the policymaker just as theoretical implications.

This study involves several limitations, which can provide suggestions for further research. Firstly, the sample was limited to 315 respondents, from a particular context, namely Abu Dhabi. Thus, the speculation of the outcomes applies to this specific area. Although the characteristics of the sample are claimed to be representative of the UAE context due to its similar socio-economic, generalization to other Arab countries should be done with caution. Along these lines, the pertinence of discoveries to different nations might be restricted. Further, the sample tends to be represented mainly by male executive banking officers, while female executive banking officers are under-presented. As such, to generalize the findings to executive banking officers regardless of gender is an understatement. Concerning this, the investigation is also limited to one culture, namely the Arab. Thus, the findings cannot be generalized to other cultures

Based on the limitation of the sampling frame discussed in the previous section, future studies are strongly suggested to seek a more comprehensive source to determine a more robust sample of executive banking officers. Also, future studies are recommended to perform segmentation for the financial institution to acquire and understand specific information. For instance, segmentation can be done based on industries or firm attributes, defining pandemic issues COVID-19 that impact the financial service performance, and recommending policy implications so that appropriate strategies can be developed for the financial institution.

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