

Effectuation Orchestration the Process for Innovation

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Abstract

This study underpins the role of effectuation that connects the entrepreneurial prior experience to product and service innovation, and how the entrepreneurs' prior experience uses the effectuation process for product and service innovation. Samples of 348 respondents were collected to measure these variables and their connection. The study uses self-reported instruments and purposive convenience sampling techniques to measure the entrepreneurs' prior experience and impact on the product and service innovation. SPSS version 25 is used for statistical analysis and the Hayes process is employed for obtaining mediation results. The study finds a strong link between effectuation as a mediator to product and service innovation and recommends using the model of effectuation proposed by Sarasvathy (2009) as a process to innovate in organizations. The model of effectuation needs to be understood to be applied by new entrepreneurs of MSME's. The study suggests that academia to understand this concept and make it a part of the curriculum of entrepreneurship study for startups and innovations by new entrepreneurs. This research adds to the current literature on how effectuation can become a process of innovation. This research recommended the suggestion of the effectuation model which proposes that an entrepreneur needs to develop a network for innovation instead of trying to do everything on their own.

Keywords: Passion, effectuation, innovation, innovativeness, process model

Introduction

Mechanization of production and allocation of resources are interlinked and have always been accompanied by questions about its impact on the incentive Antonioli (2024). Innovation provides the road map for venture sustainability and competitive advantage in the current era of business environments (Zeb & Ihsan, 2020) hence predominantly done by new resource-constrained organizations. Based on the previous research implications this study aims to investigate the process which can be employed to bring innovations to products and services. An entrepreneur's past job experience in the same or related industries

develop management competencies and business acumen to explore new product development and business Grilli (2022). Entrepreneurs gain experiential learning through work groups and alliances Rashid & Ratten (2021).

AI-investing firms experience higher growth and this primarily comes through increased product and service innovation, the process innovation improves firms' leverage in making their existing products Babina et al. (2024). New business creation and innovation develop economy and society. Governments globally provide resources to facilitate innovation for startups

Chung et al. (2024). However, most of the startups could not sustain themselves in the long run for the reason of their detrimental experience in utilizing these resources which affects product innovation. Empirical studies on the resources are based on internal resources allocated for innovation; ambiguity arises on the level of impact each external resource can have Chirico et al. (2024).

Entrepreneurship and innovation are considered to be processual phenomena Vettik-Leemet & Mets (2024) and effectuation theory could provide a solution to this problem. These processes are constrained to the entrepreneurial innovation ecosystem through their available network. Nascent firms are resource-constrained whereas, they require more knowledge and skills to orchestrate these processes and utilize the tangible and intangible (i.e., a workforce with functional skills) resources. Streamlining the processes of entrepreneurship and innovation needs further research at every stage Vettik-Leemet & Mets (2024). US government restraint orders for dining-in, in the hospitality sector during covid-19 pandemic further drive entrepreneurs to effectively innovate Noone et al. (2024) for organization survival this leads to further research on antecedents and consequences in a crisis.

Moreover, the situations that concern the resource orchestration-product innovation relationship needs further investigation. This study concerns to address the gap of lack of knowledge about how can an experienced entrepreneur orchestrate external resources through the process of effectuation.

Resource orchestration goes beyond the internally controlled resources, the external resources can be obtained through other networks i.e. suppliers, customers, etc. where these resources are detrimental to product innovation in SMEs. The present research informs, extends, and encourages entrepreneurs to utilize multiple resource orchestration with suppliers and other stakeholders to assist their firms in integrating their network with the framework provided by the elements of effectuation to be a source of competitive advantage through product and service innovation.

Entrepreneurship is considered to be the source of innovation, which can drive economic growth, it emerged to be a vibrant and transformative force for societal progress. Entrepreneurs transgressed the norms for creative destruction by bringing new ideas to reshape industries and subsequently reshaping life, Sagar (2024). Entrepreneur comes across a multitude of adaptation processes that inculcate their success or failure Yáñez-Valdés & Guerrero (2024). There are gaps in the literature on the analysis of how entrepreneurs and SMEs learn from different types of experiences (Lafuente, Rabetino, & Leiva, 2024). Research is in abundance when it comes to seasoned entrepreneurs; however, information is deficient when it comes to new entrepreneurs. How to differentiate an experienced and a new entrant when it comes to decision-making, and what specific behaviors the experienced entrepreneurs reveal are largely unknown when it comes to the comparison of new and old.

Technical knowledge can be precipitated through entrepreneurs' industry experience because of technical prowess and relationships in the industry. These technical knowledge and links help startups capacity to access downstream complementary assets via alliances. However, startups' eventual access to these resources varies widely Balachandran (2024). More research is required to explore how these links play out similarly in other settings

The knowledge that comes from prior experience in conjunction with effectuation to product and service innovation is still limited; this gap is served in this investigation and to answer the research question: to identify how prior experience is helpful to product and service innovation. Secondly, does the effectuation process mediate the experience-innovation relationship? What impact it can have on the relationship to bring product and service innovation by an experienced entrepreneur? Limited studies are found on this topic where the author attempts to determine the role of effectuation on Product and service innovation and its role as a mediator on the entrepreneurial traits and performance of micro small and medium enterprises (MSMEs).

Literature Review

Entrepreneur's Prior Experience

An entrepreneur becomes resilient by using his experience of success and failure to deal with the external environment to develop his business; he can strategically respond to the emotional, financial, and social costs, because of his previous experience Espinoza Benavides & Guerrero (2024). A passionate entrepreneur learns

from failure, the effect has on entrepreneur attitudes and reactions to failure (Walsh & Cunningham, 2024). The link between long-term orientation and corporate entrepreneurship can be enhanced within firms where entrepreneurs have prior experience Zhou, Liao, & Dai (2024).

Alliances and other networks increase the intensity of knowledge sharing if the employees have been working previously between the partnering firms (Singh & Agarwal, 2011; Wagner & Goossen, 2018). It can be conceived that prior experiences bring valuable insights into business gained through those experiences, Deligianni (2020). The entrepreneurial experience is the key contributor to establishing new entrepreneurs, maintaining economic stability through performance, innovation, and generating space for new jobs for firms' expansion in various dimensions (Attallah et al. 2023)

Product and Service Innovation

Product innovation is evident (new-product development, or existing-product improvement), whereas sometimes the service innovation becomes undistinguishable (processual improvements for increasing efficiency). Innovation can be a cause of competitive gain for businesses, either through the development of approaches (i.e. Dell incorporation) and techniques capable of generating new products or services or perfecting existing ones Taques et al., (2021). The dynamic change in business perspectives and the User demand worldwide increase the significance of innovation in small and medium enterprises (SMEs) to survive locally and in

the international marketplace Kiani et al. (2020).

Product innovation is defined as goods, services, ideas or processes perceived by the customer as a new thing in life Hassan (2017). Product innovation novelty is needed to identify the path to product innovation success Cheng et al. (2013), innovation is becoming a model for success for organizations and taking a surge in research about its antecedents and the behaviors required to innovate in any organization Kiss et al. (2020), there is an enormous increase in the demand of product or service innovation in the global market and among the research scholars.

Effectuation

Effectuation works as a framework to mediate the mechanism of entrepreneurs' alertness to organisation performance and market opportunities Karami and Hossain (2024), unlike the causal effect, the effectuation process is a construction to remain competitive in uncertain environment Ebegetale et al. (2024). Behavioral decision-making studies draw different parallels for uncertain conditions; causal decision makers prefer status quo whereas, effectual decision makers go for new opportunities Cowden et al. (2024). In uncertain situation the entrepreneurial networks-effectuation-BMI association is considered to be more significant Xu et al. (2024). Effectuation process provides valuable knowledge to its readers and entrepreneurs to make alliance to bring the incentives required or resolution of any problem. Effectuation process i.e. networking, affordable loss, etc. can be used to make a pool of resources to make the

enterprise productive and sustainable Sarasvathy & Ramesh (2019).

Entrepreneur Prior Experience, Product and Service Innovation

Working in a reputable organization in a similar industry an entrepreneur gains technical knowledge and can forge alliances for market gains; Technology -focused industry experience will assist in product or service innovation and alliances can assist in commercialization Balachandran (2024). The performance of the entrepreneur's prior experience in technology-intensive industries is better than other new entrants. On the other hand, studies find that experienced entrepreneur can bring superior organisational performance with the help of non-technical knowledge of regulatory authority and marketing instead of technological spillovers from parent to Chatterji et al. (2014).

Product and service innovation is not the outcome of education and prior experience but the frequency of interpersonal connections Chávez-Rivera et al. (2024). Firms generate innovations more from informal networks than formal networks; secondly, network-based innovation is reinforced by management and industry experience Tran & Freel (2024). In SMEs, Entrepreneur's prior industry and technical experience expose a link regarding the frequency of firms innovate in products. This technical experience contribute more to the organisations product and service innovation Marques, et al. (2020).

H1: Entrepreneurs Prior Industry experience has a positive relationship with the Product and service innovation

Entrepreneur Prior Experience and Effectuation

Experienced entrepreneurs play a critical role in growing an organization that faces several challenges to leverage resources to overcome constraints and develop an echo system with stakeholders (Mirkovski, Von Briel, Lowry, & Liu, 2024). The experienced entrepreneur gained resources through networking, relationship building, and their previous knowledge and practice (Moitse, 2024) the ingredients of the effectuation employed by effectuation to achieve organizational outcomes.

Entrepreneur is expected to use their experience and expertise to use unorthodox solutions for better business outcomes, entrepreneur either novice or experienced use both effectuation and causation processes differently wherever required for their ventures Ruiz-Jiménez, et al. (2021). Network diversity plays a considerable part in facilitating shared innovation and knowledge exchange Chávez-Rivera et al. (2024). The evaluation process provides the framework to understand and act in an adverse situation for sustainable outcomes. Effectuation theory elaborates on the mechanism to understand and act, and an expert entrepreneur can utilize their personal and social network to create a new future Karami, et al. (2024).

H2: Entrepreneur prior experience has a positive relationship with Effectuation.

Effectuation, Product and Service Innovation

Resources are vital for innovation and competitive advantage; they require large-scale investment for resource-constrained SMEs. For that reason, firms must chart out

a plan to utilize internal and external resources, particularly from suppliers for product innovation Chirico et al. (2024). Orchestrating external supplier-provided resources is challenging as much of the research is employed for internal resource utilization. Moreover, how much external resources are useful the knowledge of and its effect on product innovation is also limited. Limited studies are also found on circumstances that affect the resource orchestration-product innovation relationship, hence this study will explore these dimensions of how to garner resources for product or process innovation. The study found an affirmative effect on the innovation capacity and performance of MSMEs through entrepreneurs' networking and alliances Murtini, et al. (2024).

Entrepreneurs' development of networks and alliances can be a noteworthy factor in increasing innovation capacity and performance for Micro, Small, and Medium Enterprises (MSMEs). Social support from associates and family members could also serve as an encouragement to develop their innovation outcomes Chávez-Rivera et al. (2024). Effectuation mediates the relationship between the entrepreneur's prior experience and the product and service innovation of the venture firm Cha et al. (2020).

The theory of effectuation has a special place in the innovation process in new businesses with resource constraints and a high extent of uncertainty Berends et al. (2014). There are research gaps that exist around the use of experiments as a tool for innovation and corporate entrepreneurship in

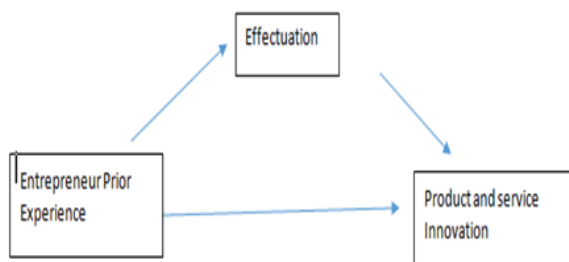
conventional firms. Therefore, we hypothesize that:

H3: Effectuation has an appositive effect on Product and service innovation.

Experimentation an element of the effectuation process is becoming increasingly popular to gauge user's insights and to innovate. Limited research evidence is found on the various challenges that organizations face in using experimentation for innovation, the strategies to overcome these challenges, and the restrictions on the application of experimentation in the firms Hampel (2020). Experiments produce statistics that entrepreneurs can exploit to examine the impact of their results. Experimentation also lets entrepreneurs generate prospects in the course of early stakeholder participation. Experimental learning support with intent-formed experiences (experiments). These experiments focus on information about states (for example, customer needs) and the interrelationships (for example, problem-solution fit). Entrepreneurs can scrutinize and reflect on the outcomes of their experiments Harms (2019).

H4: Effectuation mediates the relationship between an entrepreneur's prior experience and Product and service innovation.

Figure 1 Conceptual Model



Methodology

Research Design

This study is causal, cross-sectional, and quantitative in nature. It is conducted in a non-contrived setting and a survey method is used to collect data to find the relationship between an entrepreneur's prior experience in Product and service innovation and the mediating role of effectuation.

Sample and Data Collection

The study involves MSMEs of Pakistan. The owner and main employee who is involved in decision-making in MSMEs is the unit of analysis of this research. The data from 348 respondents were collected using an online questionnaire that was sent to the owners or experts employed in MSMEs and technology firms located in the Islamabad region of Pakistan. The samples were chosen by using the purposive convenience sampling technique as suggested by Sivathanu and Pillai (2019). The samples were collected both online and through field visits to several business centers of Rawalpindi and Islamabad region. The respondents were considered appropriate for the study as they were the principal staff members, owners, or decision-makers of the MSME.

Measures

This study adapted the instruments of previous studies and all the constructs are measured on multi-item 5-point Likert scales.

Reliability Statistics

The reliability statistics of all the variables are more than 0.7 which is considered by nunally (1978) as a good measure of the instrument.

Entrepreneur Prior Experience

Entrepreneur prior experience instrument is an ordinal scale that has been extracted from Cassar, G. (2014) on entrepreneur forecast performance in new firms.

2.6 Product and service innovation

Prevailing measures of constructs were used and this study benefitted from the scale used by (Cui & Wu, 2017). Reliability of the five-item scale of Product and service innovation 'Very novel for the industry' ($\alpha = 0.81$). Reliability of the Product and service innovation was taken on 5 items as shown in Table 1. All the items have acceptable reliability as more than 0.7 is considered to be good where it is considered internally consistent and the results are seventy percent accurate, whereas the reliability of Product and service innovation is 0.81 which is also acceptable.

Effectuation (Mediator)

To study the contribution of effectuation as a mediator on Product and service innovation, existing measures of constructs were used and effectuation was measured by using a scale adopted from Chandler et al. (2011). Reliability Statistics of Effectuation are measured by 15 items of effectuation. Reliability of fifteen-item scale of effectuation ($\alpha = 0.708$).

Data Analysis

Table 1 shows the study demographics. Most respondents were male and fell within the age brackets of 18-35. Further, the respondents were either owners of the MSMEs or executive-level employees who better understood the business operations. Gender composition of respondents: female twenty percent and eighty percent of the respondents were male whereas sixty-eight percent of the respondents were single.

Table 1 Demographic Statistics

Variable	Range	Frequency	Per cent
Gender	Female	70.00	20.11
	Male	278.00	100.00
Age	18 to 25	178.00	51.15
	26 to 35	130.00	88.51
	36 to 45	16.00	93.10
	46 to 55	21.00	99.14
	55 or above	3.00	100.00
Marital Status	Single	239.00	68.68
	Married	109.00	100.00
Designation	Owner	158.00	45.40
	EL	57.00	61.78
	GM	71.00	82.18
	FM	35.00	92.24
	FLM	27.00	100.00

*Note: EL (executive level), GM (General Manager), FM (Functional Manager), FLM (Front Liner Manager)

The correlation of the variables is illustrated in correlation table 2 The study independent variable entrepreneurs' prior experience has a positive and significant correlation with the dependent variable Product and service innovation at .155**, and .182** with the mediator effectuation. The dependent variable Product and service innovation has a positive and significant correlation with mediator effectuation at .455**. The mediator correlates with the dependent variable.

Table 2 Correlations

	PE	Effectuation	PSI
Prior Experience	1		
Effectuation	.182**	1	
Product & service innovation (PSI)	.155**	.455**	1

** Correlation is significant at the 0.01 level (2-tailed).

Regression Analysis

This research used the Andrew Hays process model 4 to run the mediation analysis of independent variable entrepreneurs' prior experience on dependent variable Product and service innovation, this process made it more effective than other software. Table 3 model 1 model summaries, the model is significant as the P value is .000 and the R2 is .0331, and positive the model is fit for interpretation.

Table 3 Model 1 Model Summary

R	R ²	F	Df ¹	Df ²	P
0.182	0.033	11.808	2	345	0.000

Table 4 model 1a describes the relationship of IV entrepreneur prior experience on mediator effectuation. The effect of the Independent Variable entrepreneur's prior experience on the mediator is .0915 T value is 3.43 and the P value is significant at .000, the lower-level and upper-level confidence intervals are also in the same direction where the zero does not set in, showing the results are significant. Hence it can be concluded that the study Hypothesis H3: Entrepreneur Prior Experience has a positive relationship with mediator effectuation is accepted.

Table 4 Model 1a IV PE on mediator effectuation

Variables	Effect	SE	T	P	LLCI	ULCI
PE	0.0915	0.0841	3.4364	0.000	.0391	0.1438

Table 5 model 2 model summaries, the model is significant as the P value is .000 and the R2 is .211, and positive the model is fit for interpretation.

Table 5 Model 2 Model Summary

R	R ²	F	Df ¹	Df ²	P
0.4594	0.2110	46.00	2	344	0.000

Table 6 Model 2a illustrates the effect of the independent variable entrepreneur's prior industry experience on the dependent variable Product and service innovation. The results show an effect of .0441 of Independent variable entrepreneur prior experience on dependent variable Product and service innovation. This is the direct effect of the mediation model. This effect is the effect of the independent variable on the dependent variable in the presence of the mediator. The results are not significant and the T value is also less than 1.96 and the lower-level and upper-level confidence interval is also not in the same direction where the zero also sets in. Hence it can be concluded that the study Hypothesis H1: Entrepreneur Prior experience has a positive relationship with the Product and service innovation is rejected.

The effect of mediation on the dependent variable Product and service innovation is .580 which is significant, the lower-level and upper-level confidence intervals are also in the same direction where the zero does not set in also shows the results are significant. Hence it can be concluded that the study Hypothesis H2: Mediator Effectuation has a positive relationship with DV Product and service innovation and hypothesis H2 is accepted.

Table 6 Model 2a IV Direct effect

Variables	Effect	SE	T	P	LLCI	ULCI
PE Industries	0.0441	0.0321	1.375	0.017	-0.019	0.1073
Effectuation	0.5800	0.0639	9.0841	0.000	0.4545	0.7056

Table 7 model 3 model summaries, the model is significant as the P value is .00 and the R² is .217 and positive the model is fit for interpretation.

Table 7 Model 3 Model Summary

R	R ²	F	Df ¹	Df ²	P
0.1475	0.217	7.668	1	345	0.00

Table 8 Model 3a illustrates the total effect which is the combined effect of the direct effect and the indirect effect i.e. the mediation process where the results are significant at 95%, the T value is also more than 2, and the upper-level and the lower-level confidence interval is also in the same direction where zero does not set in.

Table 8 Model 3a Model Summary Total effect

	Effect	T	P	LLCI	ULCI
PE	0.0972	2.7693	0.006	0.0282	0.1662

Table 9 Model 4 shows the direct, indirect, and total effects. The direct effect of entrepreneurs' prior experience on the dependent variable Product and service innovation shows an impact of .0441 on the dependent variable Product and service innovation, where the results are insignificant, the T value is less than 2, and upper-level and lower-level confidence interval is also not in the same direction where zero sets in. However, the indirect effect or the mediation analysis shows

mediation is occurring. The effect of the mediation is .0531 and the result is significant. The effect of the mediation increases the total effect to .0972 which concludes that effectuation increases the effect of the entrepreneur's prior experience for the Product and service innovation. Hence it can be claimed that H4: Effectuation mediates the relationship between the entrepreneur's prior experience and Product and service innovation accepted.

Table 9 Model 4 -Direct, Indirect, and Total Effect of X on Y

Direct, Indirect and Total effect					
	Effect	T	P	LLCI	ULCI
Direct effect	0.0441	1.3751	0.17	-0.09	0.1073
Indirect effect	0.0531			0.0174	0.0978
Total Effect	0.0972	2.7693	0.006	0.0282	0.1662

Discussion

The purpose of this study was to respond to two central research questions. First, how is entrepreneurial experience related to Product and service innovation and the role of effectuation process if it mediates and augments Product and service innovation? The studies conducted by previous authors (Chávez-Rivera et al. 2024; Tran & Freel 2024; Marques, et al. 2020) advocated the positive impact of entrepreneurs' prior experience with product and service innovation which justifies the H1: entrepreneur prior experience has a relation with product and service innovation. The findings of this study extend the prior literature that examined the effect of Entrepreneurs' Prior experience on Product

and service innovation (Espinoza Benavides & Guerrero, 2024; Balachandran 2024; Chávez-Rivera et al. 2024).

The study fills the gaps in related research on the impact of effectuation mechanism on the Product and service innovation. The results of the data reveal a significant link between entrepreneurs' prior industry experience with Product and service innovation. Results show a positive correlation between the dependent variable Product and service innovation with the independent variable entrepreneurial prior experience. Regression analysis shows there is a direct effect of .0441 of entrepreneur prior experience on dependent variable Product and service innovation.

The mediation effect is .0531 which enhances the total effect to .0972 which shows there is a full mediation on the outcome of entrepreneur prior experience and product and service innovation. Abu-Bader & Jones (2021) describe a full mediation model occurs when "X no longer statistically significantly affects Y, after controlling for M; that is, the correlation between X and Y is reduced and is no longer significant Conversely if the effect of X on Y is still statistically significant but reduced, a partial mediation model is supported. In general, the smaller the coefficient "c" becomes, the greater the effect of the mediator" Abu-Bader & Jones (2021).

Hence it is found that the above conditions were met. The study results show an interesting phenomenon that entrepreneurs' prior experience correlates with the dependent variable Product and service innovation, whereas, it does not have a direct relationship with the dependent

variable Product and service innovation in the presence of mediator effectuation the results of direct relationship is insignificant. However, in the total effect model, we can observe that the relationship became significant: hence we can conclude that full mediation occurred because the IV-DV direct relationship is insignificant which provides the necessary condition of full mediation. The mediation process of this study has similar results in the previous studies where previous authors had found networking Murtini et al. (2024) and the experimentation process (Chávez-Rivera et al. 2024; Hampel 2020; Harms 2019) are important factors to contribute product and service innovation.

Conclusion and Recommendations

A conceptual model of product and service innovation through the entrepreneur's prior experience and effectuation was designed to study its relationship and effects on product or service innovation. The study took insights from the study of Marques, et al. (2020) to explore the impact of entrepreneurs' prior experience of working in the same or related industry product and service innovation. The study further stretches to test the effectuation process if the effectuation mediation enhances the study outcomes as is evident from the previous studies Cha, et al. (2020), etc.

This investigation selected the causal setting and found that entrepreneurial experience has a correlation with the Product and service innovation but the causal results of the direct relationship are insignificant. The results of the mediation are significant and the total effect of the

model became significant. It shows the strength of the process which drives the insignificant results towards positivity. Mediating variables are foundational for understanding the mechanisms of effects Abu-Bader & Jones (2021).

To attain sustainability a prerequisite to survive in the long run is innovation and, for this reason, experimentation can be perceived as a methodical approach for entrepreneurial innovators to gain knowledge of prospects and how they may utilize them. In entrepreneurship, experimentation has surfaced as the core basis for one of the most significant approaches to introducing new ventures Hampel (2020). Studies of effectuation are embedded with entrepreneurs' capabilities and conclude that new and experienced entrepreneurs use effectuation and causation process differently for decision making for their venture performance Ruiz-Jiménez, et al. (2021).

This study results are in line with the previous researchers who advocated the use of causal and effectual logic for getting technical and market opportunities through resource orchestration. For this reason it is recommended that to enhance the Product and service innovation the entrepreneur need to develop the understanding of the effectuation process to enhance the Product and service innovation, experience alone could not bring effective results. Future research can be conducted on the qualitative dimensions of effectuation and the study can also identify the effect of individual dimensions of the effectuation process on the outcome variable and what effect they cause in the overall effectuation process

mechanism. Finally, this study propose the value of engaging in dialogue with practicing entrepreneurs to explore about their experiences in diverse situations and how they have coped with the adverse situation, this could lead to future qualitative studies to identify the insights of entrepreneurs' foresight how they have orchestrated the effectuation principles for their business advantage.

Academic and Practical Implications

The effectual logic concept has been used effectively by experienced entrepreneurs in building networks and alliances, experimentation, etc. However, this phenomenon is still not very familiar to academia; what is vogue is the resource-based theory concept of more resources for product and service innovation required to gain competitive advantage and sustainability. Providing empirical evidence for this study contributes to the existing body of support for Sarasvathy's effectuation theory (2009).

Startups are usually owned and operated by young entrepreneurs who have the energy and knowledge for product and service innovation but lack the management skills and expertise to utilize the available resources from the entrepreneurial ecosystem they are working in. This study explores the intricacies of effectuation logic in support of previous studies Chirico et al. 2024; Murtini et al. 2024).), advocated that it is advisable to gain experience to orchestrate and utilize the elements of effectuation for product and service innovation. Findings of this study advocate developing knowledge of effectuation by the academicians in order to guide the students

to develop the frame-work for product and service innovation through effective experience. Working in SMEs provide better insights of how experienced entrepreneur orchestra the effectuation resources and these decision making process of experienced entrepreneur could be imitated by others.

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