

Does Effectuation Theory Explain the Startup Behaviors of Entrepreneurs in Pakistan?

Afshan Chohan

Government College University, Lahore

Muhammad Rizwan Saleem Sandhu, Muhammad Zaheer

Virtual University of Pakistan

Abstract

The very purpose of the study was to explore and confirm if the startups in Pakistan take the path of effectuation or causation according to the effectuation theory contributed by Sarasvathy. The qualitative survey design was used to interview fifteen (15) entrepreneurs from Lahore and Rahim Yar Khan. The interview guide was developed to interview the entrepreneurs. Interviews were then content analyzed to extract themes using the methods suggested in the literature. Findings of the study have supported that the startups in Pakistan take the path of effectuation rather than causation as almost all principles of effectuation were found implemented in all startups considered for the study. The study is the original contribution in terms of supplying empirical evidence for the principles of effectuation in the context of Pakistan. The study has been conducted only in the context of two cities with a limited number of entrepreneurs which limits its findings. Limitations of the study offer opportunity for future research with a broad-based sample. The study offers useful insights to both potential startups and policymakers.

Keywords: *Effectuation theory, Causation, Entrepreneurship*

In every country, individuals are largely concerned with the improvement of their living conditions by earning a greater amount of money. The process of earning is a difficult task and every individual opts for different means to create money. The creation of money depends greatly upon the strong economy and productivity of companies and firms, which relies fundamentally on the capabilities of individuals working in the business and cooperative sector. Individuals in business sectors have the desire to start and establish one's businesses using their creative idea and business plans, thus engaging in the process of entrepreneurship. The idea of starting a new business is a complex concept and researchers from every field attempt to describe it. Over the last few decades, research on entrepreneurs has become an emergent topic for economists. The researcher tends to examine factors playing a key role in the establishment of new business as well as identify the problems in terms of allocation of resources for a new venture. Writing on entrepreneurs and entrepreneurship is a difficult task.

According to Cooper (2003) entrepreneurship is a newly emerging field. It can be regarded as the development and creation of new enterprises. Entrepreneurship as a process of discovering, evaluating, and exploiting new resources and opportunities (Cooper, 2003). The field of entrepreneurship involves the combination and exploitation of already available knowledge with the use of new knowledge and opportunities to establish new business ventures to create innovations and technological advances (Ahuja & Morris Lampert, 2001; Alvarez & Barney, 2007; Ireland & Webb, 2007) as cited in (Nguyen, 2013). The basic key factors required in establishing and flourishing a business venture as an entrepreneur involve decision making, selecting, searching and creating opportunities, utilizing resources, and learning the best through repeated failure processes (Barreto, 2013; Cantillon, 1755; Hébert & Link, 1989).

The skills necessary for an entrepreneur can be innate, natural talent gifted to individuals by God or can be developed and improved through proper education regarding entrepreneurship. This describes that individuals can learn the tactics needed to be an entrepreneur through practical life experiences, risk-taking, problem-solving, taking initiative, critical thinking, developing communication styles working with confidence, and showing teamwork ability. This provides evidence of both nature and nurture skills which play an equally

important role in developing entrepreneurship skills. Another question arises here, what strikes an entrepreneur to start his own business? Various researchers have identified different factors that can lead an entrepreneur to start his own business such as the frustration of an individual's current job can lead him towards the idea of starting a new business as he does not see any other option to excel in his career. In simple terms, it can be concluded that an individual is ready to sacrifice his time, money, and efforts to turn his innovative ideas into business when he feels a lack of interest in his present job. An entrepreneur requires hard work to carry out market research to set prices of the products according to the demands of their customers.

An entrepreneur is likely to take his own decisions and decides the number of hours he needs to work because he is interested in gaining financial rewards rather than working for owners. An entrepreneur is more interested in getting financial rewards and appraisals as compared to employees. Due to their ability to participate in all the key functioning areas (designing, sales, and operations) of a business, entrepreneurs do not want to work as an employee; they can utilize their skills for their business. The most important reason to become an entrepreneur is a guarantee for success as they have a desire to start a new venture with the help of vigilance, planning, and hard work which leads them to develop a profitable venture.

According to Nguyen (2013), identifying the activities of other entrepreneurs in terms of taking life actions, recognizing opportunities and utilizing resources, applying knowledge and experience to start a new business venture are compulsory elements to be considered before starting one's own business. Previous research suggest that decision-making is a key factor that directs individuals toward their goals. This decision-making was described by Sarasvathy (2001b) as a causal logic. The causation approach is used in the domain where basic focus and primary factors are regarded as predictive rationality and environmental selection which in turn influences the outcomes.

With the emergence of new theories and practices, Sarasvathy (2001b) moved from the causation approach and described a new form of decision logic to identify entrepreneurial opportunities described as "Effectuation". The model of effectuation and effectual theory of decision making in entrepreneurial research was first identified and described by Sarasvathy during her doctoral dissertation (1998). During her research work, Sarasvathy (1998) defined the effectuation process used by entrepreneurial experts as opposed to the classical causation process. According to Sarasvathy (2001b), a causal process is defined as "taking a particular effect as given and focus on selecting between means to create that effect", while defining effectuation, she described that "effectuation processes takes a set of means as given and focus on selecting between possible effects that can be created with that set of means".

Different researchers have used various approaches and directions to study the integral factor which plays key roles in the entrepreneurship process such as decision making (Abelson, 1976), Personal biases (Busenitz & Barney, 1997), overconfidence (Zacharakis & Shepherd, 2001), Thoughts and cognition (Forbes & Milliken, 1999), Political Influences (Eisenhardt & Bourgeois III, 1988), Power and authority (Miller, 2011). Researchers suggest that all these key factors are a part of a bigger process described as an entrepreneurial process that is largely based on principles of uncertainty and lack of definite positive outcomes. Therefore, they suggested that the presence of strategies to deal with unexpected situations would provide useful information and predictive accuracy, which would be quite valuable for the entrepreneurs (Dunning et al., 2004; Miller, 2011). Over the past decade, with the emergence of the effectuation model, more focus on entrepreneurial research has been shifted towards effectuation logic in entrepreneurs. Various researches have been done to understand the consequences of thinking effectually rather than using the causation approach. One of the most important consequences and outcomes includes "performance". The present paper will put focus on the impact of effectual reasoning and the use of the effectuation model by entrepreneurs in Pakistani society.

The world has become a global village due to recent advances in technology as a result entrepreneurship process has also been studied and researched in every part of the world. If an individual knows the type of business he wants to start, he usually begins with the focus on a previous theoretical framework and business plans which are usually explained in his areas of interest. Universities in every part of the world have started teaching business courses and curricula to help students learn effective strategies, and different business plans and to understand the concept of causation and effectuation theory (study market and market segment, targeting and positioning to reach identified goals). The question arises here, about the type of business model to be used for starting a new business in a real-life context?

The lack of substantial focus on entrepreneurial behaviors is a major gap in terms of the use of the effectuation process among Pakistani entrepreneurs. The present research takes into account the entrepreneurs from Pakistan to identify the type of process used by them while starting and expanding their business. Hence this explains our point of departure for this paper. The present paper is confirmatory and the goal is to conduct an empirical study on effectuation research.

Research Question1: Does effectuation theory guide entrepreneurs in Pakistan in starting new businesses in ways similar to previous research?

Research Question2: Do entrepreneurs use effectuation model theory to guide their business?

Research Question3: Why do entrepreneurs apply effectuation theory to start a new business?

Research Objective1: To confirm effectuation theory's role in explaining the startup behaviors of entrepreneurs in Pakistan.

Research Objective2: To study how entrepreneurs use effectuation model theory to guide their businesses.

Research Objective3: To explore why entrepreneurs apply effectuation theory to start a new business.

Literature Review

Brettel et al. (2014) researched the manager's effectual decision role in the manufacturing industry. The basic rationale of the research was to assess the relationship between effectuation theory and uncertainty in the manufacturing industry by using the case study method. Managers faced many difficulties in manufacturing industries due to the increased number of product variations. The three case studies were selected as they completed the criteria of the research in dimensions of effectual behavior, affordable loss, and partnership. Results of the study suggested that managers followed effectuation theory to overcome uncertainty upon entering a new market. Effectual decision-making was identified to be an essential ingredient for managers to overcome the uncertainty of customized products. Moreover, it was also concluded that few of the managers included in the research study applied effectuation theory to overcome features of causation theory while the production of products depending upon the demands of customers in an uncertain environment. Fatima and Bilal (2020) have supported the link between individual entrepreneurial orientation and business performance.

Kalinic et al. (2014) researched entrepreneurs' participation on the bases of their effectual/causal decision-making abilities under the situation of unplanned lines for internationalization. The results showed that entrepreneurs followed effectual logic rather than causal logic for international expansion. The affordable loss principle of effectual theory enabled them to make decisions. The effectual theory also contributed to increasing the level of commitment for entrepreneurs in the international market.

Another research study conducted by Harms and Schiele (2012) examined the role of antecedents and consequences in causation and effectuation theory during the process of new venture creation in the foreign market. It was concluded that causation theory involved the decision-making process which is the most important factor for the creation of new ventures. Kalinic et al. (2012) conducted research in Italy to study the relationship between entrepreneurial behaviors and international unplanned investment with the help of effectual theory. According to the findings of the research study, entrepreneurs used effectual theory over causation theory while making decisions for international expansion. It was further generated from results that organizations used effectual theory to reduce the amount of information required for international expansion rather than redesigning organizations for the collection of a large amount of information.

Nielsen and Lassen (2012) examined the relationship among entrepreneurs to identify the use of causation and effectual theory. The results suggested that identity was multiple processes instead of a stable one as defined by Sarasvathy (2001a) in effectual theory. The effectual theory was more effective than the causation theory as it lead entrepreneurs to experience different layers of reality. It was also concluded from the results that the concept of identity according to effectual theory, not only related to the allocation of resources and commitment but also helped them in the risk management process. Ali et al. (2020) have argued that the role of incubation centers plays a pivotal role in the promotion of entrepreneurship.

Chandler et al. (2011) conducted another research study to examine the causation and effectuation theory in terms of understanding entrepreneurial actions in an unpredictable business

environment. Results from validity and reliability analysis concluded that entrepreneurs used three dimensions of the effectual theory that were significantly related to uncertainty.

Dew et al. (2011) conducted another research study to find the relationship between search/selection and the transformation process in the creation of a new market. It was concluded from the results that expert entrepreneurs used more transformation procedures (development of new ideas into usable forms) than MBA students. Hayward et al. (2010) used the case study method to examine, broaden and build a theory of positive emotion that proved helpful for entrepreneurs to become serial entrepreneurs. The results showed that most entrepreneurs were successful because of their experiences which enabled them to get resources in time and prevent them from their failures. It was also generated from results that many entrepreneurs could not become serial entrepreneurs because of a larger failure of reputation and venture in public.

Sarasvathy et al. (2001) conducted research to study the relationship between effectual theory and basic business knowledge for starting a new business. The results explained that expert entrepreneurs followed the effectual theory model for starting a new business because they invested according to what they were able to afford. Decrease loss showed that they had expertise. Moreover, expert entrepreneurs survived for a longer duration in the market using the theory of effectual reasoning. It was also concluded from the results that more than 80% of students used causation theory for the process of new venture creation. The research was conducted by Baron (2008) to investigate the performance of entrepreneurs in starting a new business. The results generated no significant evidence for demonstrating the areas where effectual logic was used by experts. It was also explained from the results that entrepreneurs required expertise in the following areas i. Recognizing and evaluating business opportunities, ii. Building effective social networks, iii. Acquiring essential resources, and iv. Making effective decisions.

Goel and Karri (2006) explained the role of effectual logic and overtrust by using entrepreneurial characteristics. Trust is an important factor to be considered while doing partnerships with other individuals for establishing a new venture. Results showed that entrepreneurs were more successful in doing business by using the effectual model in a trustworthy environment. Trustworthiness increased medium for the strong and significant relationship among partners. Wiltbank et al. (2006) researched to examine the role of prediction and control in the process of decision making. The results of the meta-analysis showed that entrepreneurs were needed to carry out in-depth market research for the prediction of trends in the market niche. It was concluded from the results that strategy marking helped organizations in making major decisions.

Politis (2005) conducted a study to understand entrepreneurs' learning process by reviewing the literature. Entrepreneurial learning has three main factors i) Entrepreneur career experiences, ii.) The transformation process, iii.) Entrepreneurial knowledge leads a person to recognize the creation of new ventures in the best possible ways. Sarasvathy et al. (2003) conducted another research to study three views of entrepreneurial opportunities in the case of uncertainty (which consists of a set of ideas, beliefs, and actions that enabled the creation of future goods and services) to overcome issues which were raised by Economists (problems in the allocation of resources for invention due to technological advancement). The result findings suggested that every invention served as a cause for the creation of several effects. It was also identified from the results that the achievement of goals depended largely on abilities for identifying opportunities that were related to human aspiration and human imagination.

Another research study was conducted by Sarasvathy (2001a) to compare the role of causation and effectuation theory in the creation of a new market by using a case study method. Results showed that causation theory was related to prediction while effectuation theory was more related to creativity. The study further examined the role of effectuation in business by using different prepositions (at the firm level, at the market level, at the level of the economy). Successful entrepreneurs created their businesses on the bases of effectuation theory. Moreover, Sarasvathy (1998) examined the relationship between the entrepreneurial process and Pre firms creation process in the establishment of the new firm, because no firm could be established without completing Pre firm process. Firms were defined as artificial entities and entrepreneurial processes (combination of resources, stakeholders, and environment) were described as necessary while explaining the establishment of firms. Successfully created firms through a fully complete entrepreneurial process. For this research, data were collected from 45 expert entrepreneurs from different states of the USA. The results concluded that pre firm process helped entrepreneurs to

define future demands and create firms to fulfill these identified demands. It was also concluded from the results that those entrepreneurs who fulfilled the pre-firm process and created firms through entrepreneurial decisions (decision of resources, decision of stakeholders, and decision of environment) were able to establish the best business setups.

Faiez and Younes (2012) conducted a study to access the role of effectual network components (effectuation, bird in hand principle, and social network) in the decision and action of effectual entrepreneurs. The role of effectual entrepreneurs was identified to be different from casual entrepreneurs. The results further showed that components of the effectual network (effectuation, bird in hand principle, and social network) had a link with effectual principles. Network, knowledge, and identity were considered essential art required for effectual analysis. Concepts of effectuation were based on unpredictable strategies for business. Entrepreneurs were able to decide cases of contingencies by using human and social capital as factors of prediction to create a new venture and firm success. Pacheco et al. (2010) reviewed articles to understand the role of entrepreneurs concerning sociological-based institutional theory and economical based institutional economics. The results showed that entrepreneurship theory helped institutional entrepreneurs to enhance their abilities to recognize more opportunities in the market.

Karlsson and Honig (2009) and Davidsson and Gordon (2009) examined the learning strategies of nascent entrepreneurs concerning the Effectual theory presented by (Sarasvathy, 2001b). Six different learning strategies were also explored during this study. The term nascent entrepreneurs were used for an individual who could make a business plan and used his networking to acquire the required resources for starting a new business. Shirokova et al. (2020) and Zhang et al. (2022) argued that there is difference of firm performance under causation and effectuation, under tough economic conditions effectuation gives better performance. Peng et al. (2020) concluded that effect of effectuation and causation is nonlinear on the performance of a new venture. Henninger et al. (2020) revealed that ventures often switch between causal and effectual reasoning. Henninger et al. (2020) found that effectuation is the characteristic of new ventures while causation is the function of established firms, however established firms may also benefit from effectuation.

Research Methodology

The research was a qualitative research study. The current study was conducted to confirm the role of effectual theory in explaining startup behaviors of entrepreneurs in Pakistan. Data for the research, primary in nature, was obtained by conducting structured interviews of entrepreneurs from different business sectors and from cities of Lahore and Rahim Yar Khan. The study was based on following two stages:

1. Phase I: This phase involved the development of interview guide based on the model of Chandler et al. (2011), which was initially used by the researcher as a mean of data collection. The pilot study was conducted during this phase to identify the relevance and effectiveness of developed structured interview.
2. Phase II: This is the main phase of present research which involved collection of data from participants and analyzing the obtained data using qualitative approach.

Phase I: Development of Interview Guide

Phase I began with the development of structured interview based on the objectives identified and presented by Chandler et al. (2011). During this phase, a structured interview guide with open ended questions comprising of 26 items was developed in both English and Urdu language to make the instrument culturally relevant for the participants that facilitated the process of data collection during main study phase. The 26 items were grouped together into 6 basic categories on the basis of their collective nature and relevance to a particular construct. The 6 basic categories were identified as: Experimentation, Affordable loss, Flexibility, Pre-commitments, Partnering and Focus on resources. The questions were designed to assess the personal as well as business related factors of participants to identify the effect of these factors on entrepreneurs.

Pilot Study

The pilot study was conducted with help of three participants to check validity and relevance of developed interview guide of the present research study. Pilot study further helped to assess the difficulty in developed questions. Detailed feedback was taken from participants regarding difficult and irrelevant items in order to bring change in items of the structured interviews. The interviews were conducted according to feasibility of language of the participants to obtain maximum and rich information.

Phase II: Main study

The main study phase comprised of data collection from entrepreneurs to assess the role of effectual theory used by entrepreneurs in Pakistani society to establish and run their business. Furthermore, the interviews were analyzed in detail according to qualitative method of content analysis to relate the findings of present research with the effectual theory originally developed by Sarasvathy (2001).

Sample

A total sample of 15 entrepreneurs was recruited from different business backgrounds. The sample selected was within age range of 25-45 years. The data was collected from different businesses sectors which included, Restaurants (n=7), Service providers (n=4), Business related to Information and Technology (n=1), Business related to marketing (n=1), control sheds (n=1), and property dealing (n=1), Data was collected from entrepreneurs from the cities of Lahore and Rahim Yar Khan.

Sampling Strategy

The entrepreneurs were selected as research participants based on Non-probability convenience sampling strategy.

Procedure

The current research study began with pilot study in which structured interviews were conducted from three participants. After incorporating the changes suggested and encountered during pilot phase, main study was conducted.

The participants were formally introduced with the researcher and were explained in detail the rationale and purpose for present research study. The basic notion for carrying out these interviews and recording were briefed to each participant. The interview was conducted after taking consent and permission for audio recording was taken from the participants. They were welcoming in the beginning and were ready to give the interviews but upon beginning the interview, participants were reluctant to answer and share the details of their business and efforts. They viewed researchers as a competitor and threat at several questions. Even the researcher was counter questioned about her intentions to use their experience for startup of one's own business. Feedback regarding problematic items of the interview were obtained and also satisfied regarding their concern for the misuse of their information. The questionnaire for structured interview measured 6 basic constructs of effectual theory.

The structured interviews were conducted in a peaceful setting free from distractions, with one entrepreneur at a time. Each interview was completed in an average duration of 15-20 minutes. The interviews were recorded in order to transcribe them during analysis part. All the questions were asked properly and sufficient time was provided to the interviewees to express and share their views and ideas. The participants were allowed to speak freely in any medium of language to facilitate their answers and get rich information and data.

Ethical Considerations

Following ethical considerations were retained during the current study

1. The interviews for the present research were conducted and voice recorded after taken proper consent and permission of each participant.
2. The aims and objectives of present research were eloquently elaborated to each participant prior to beginning of interview.
3. Ethical rights about leaving the research and refraining from giving answers to threatening questions was also explained to participants.
4. Individuals given surety regarding ensuring confidentiality of their names and business. Names of each business and participants were included in the research after assigning codes to them.

Data Analysis and Results

The present research study was qualitative research for which content analysis was used to analyze data obtained through transcribing conducted structured interviews. As people in Pakistan speak both English and Urdu languages and usually people were not fluent in English, therefore, they were allowed to speak in Urdu or English whatever language they felt comfortable with at the time of recording. Later the interviews were translated into the English language, keeping intact the context and verbatim of each participant, to keep the data as original as possible. The interviews were checked by two bilingual individuals to check the appropriateness of English translations of the Urdu version of the interviews. After the process of translation of

interviews, verbatim of each participant was reconciled together under each question and analyzed using the technique of content analysis.

Content Analysis

Content analysis is a type of analysis where one can make inferences about the effects of participants verbatim. Content analysis helps the researcher to fit individuals verbatim systematically into already defined categories. Regarding trustworthiness of qualitative research Shenton (2004) suggests full closure of the methods. Amankwaa (2016) however emphasizes the assurance of rigor of the study through protocols. Gunawan (2015) suggests to outline the assumptions of analysis to ensure the trustworthiness of a qualitative study.

Procedure

After conducting interviews, the interviews were listened again and again. Inappropriate data about current research was excluded while relevant material was written relevant to each question. Each recruited individual was assigned different codes i.e. P1, P2P15. The process of content analysis was done using two steps.

Step 1: During step 1, initial levels of themes were identified by reading the verbatim of each participant repeatedly. The statements of each participant directly answering the questions were identified and recorded as the initial or first level of themes of the participants.

Step 2: During step 2, the initial levels of themes identified by each participant were further analyzed and grouped based on their similarity to the construct to form the second level of themes. The process of content analysis was done carefully by repeatedly going through the statements of participants to gather better information and extracts. The second level of themes was further identified and grouped under the already defined constructs based on which structured interview was developed. The following constructs were identified through construct analysis after conducting structured interviews:

1. Business initiative

The first master theme of the present research was business initiative. The main purpose of this construct was to identify different approaches tried and used by entrepreneurs to start their businesses. This construct further identified the decisions of entrepreneurs to start their own business by keeping in mind different business-related factors. This theme also taps the help and use of certified training and knowledge of entrepreneurs to make good decisions for their newly established business startups. The following levels of themes were identified under this construct or master theme.

1.1. **Business startup:** The basic purpose of this theme was to show the responses of the interviewees about how they initiated their businesses. To identify the factors which compelled them to start a new business. The majority of the recruited interviewees started their businesses to utilize their available resources. According to a few participants, they started their business by seeing business trends in the market.

1.2. **Source of a business idea:** Most of the business ideas came from the experience that the participants have in a specific market segment. The majority of the participants said that they choose their particular business and idea due to their experiences. Usually, participants related their idea to start a personal business according to the issues faced in their daily life.

1.3. **Arrangement of initial business fundin.:** Everyone needs finance to start his new business. There are a different number of sources that one can use to get finance for his newly setup like personal savings, support from friends and family, and getting a loan from banks. Most of the small levels of new business could not be started by obtaining loans from the bank because banks have less capital to finance these types of business. This construct was related to identifying the source of funding and generating resources for business. The content analysis showed that the majority of the participants used their savings and family support to get finance to start a new business.

2. Arrangement of Affordable loss

The basic aim of this construct was to show how recruited participants made decisions to start their businesses on the bases of their risk-taking potential. This construct involves the decision-making of individuals for business according to how much they were likely to bear loss and risk.

2.1. **Risk-taking in life:** This theme identified how individuals wanted to pursue their dreams which required them to take risks in their life. Participants took different levels of risks in their life such as taking 100% risk, 50% risk, and calculated risk in life.

2.2. Risk in business: A person cannot become an entrepreneur without taking a risk in his business. Risk-taking ability enables most individuals to grasp more opportunities. Participants of the present research reported taking the indefinite type of risks while making business decisions.

2.3. Response towards opportunity: Many participants reported different methods that they use whenever they find an opportunity. For example, one participant quoted that she will keep in mind and checks the relevance according to her interest when an opportunity arises. Another participant used cost-benefit analyses before availing of any opportunity.

2.4. Choice of business: This factor showed how respondents selected their businesses among different business options. Most of the individuals selected their business on the bases of their available resources. Some other participants' business decision was based on their expertise and certified training courses.

2.5. Factors related while starting a new business: This construct defined different factors which helped individuals to start their businesses. Most the businesses in the world are failed due to a lack of business knowledge. One individual quoted in his interview that aim is the most important factor while the majority of the recruited individuals have visualized business growth potential and business-related factors like location, knowledge, and buyers acceptability while starting their new businesses.

2.6. Educational background and work experience: This theme taped factors which include education, work experience, and certified training courses. Some of the participants had exposure to starting their business while they did not have the experience to start or run a business. Some other participants did not belong to business education but they have the expertise to start a business. Few other individuals belong to business education background and also have the experience to start their current business.

3. Flexibility

Being flexible facilitates an individual to grasp opportunities to expand his business. This construct identifies the flexibility among entrepreneurs.

3.1. Paying attention to opportunities matching resources: Recruited individuals had consideration regarding availing opportunities because they don't rise suddenly. Interviewees attain and pay their full attention to avail opportunities that match their resources while some individuals used opportunity keeping in view the multiple factors that are associated with opportunities.

3.2. Avail opportunity in absences of resources: This factor helped to inquire responses of individuals to avail opportunities in absence of resources. One participant quoted that he will avail the opportunity by analyzing and doing proper arrangements for alternative resources. The majority of the individuals did not want to consider these types of opportunities. Some recruited individuals considered and kept in their mind these types of opportunities to avail themselves in near future.

4. Pre-commitments

Entrepreneurs' main goal is to make pre-commitment that will lead them to control unexpected things which happen shortly as they wanted to control things not predict the future.

4.1. Taking ideas/suggestions from family and friends: This theme showed factors about how participants discuss business matters or affairs with friends and family to bring change to their business environment. The majority of the participants discuss their business matters with friends who have expertise in their fields. One participant quoted that he did not need to discuss a business matter with anyone because no one will give honest suggestions and he also found jealousy among his friends. Few participants used support from friends and family.

4.2. Provision of business-related items on customer's suggestions: This theme aimed to show how individuals get feedback from their customers to produce according to their customer's suggestions to satisfy their customer's demands. The majority of the recruited individuals produce all the things which were demanded by their customers because the business of an individual only depends on his customers.

5. Partnering

Entrepreneurs build partnerships with a selective number of individuals like customers and suppliers as they help to reduce the amount of uncertainty. In this case, entrepreneurs used the relationships of their friends and family members for the establishment of their businesses. The strategic partnership helped to achieve specific goals and to build relationships among people who work together on the bases of trust.

5.1. Free service from friends and family: This theme helps to identify factors that facilitate entrepreneurs to extend or establish a new business. The majority of the interviewees did not get any free service from friends and family to extend or help during the early days of a new business. One participant quoted that he got moral support but no one gave free services. Few participants used to support and also got free services from their friends, family, and colleagues working in a related field.

5.2 Low-cost resources from friends and family: This factor helped to highlight support which was used by interviewees to get low-cost resources at the very initial stage of their business. The majority of the participants did not report getting any support and free services while few participants had received support from friends and family to build contacts in the market.

6. Focus on resources

The main purpose of this construct was to check the level of motivation to take advantage of available resources such as financial resources, human resources, and educational resources and their capabilities referring to an individual's ability to capture the firm's capacity to grasp opportunities for the business development.

6.1 Motivation for taking advantage: The stigma of motivation and passion nourished individuals to expand their businesses. The majority of the participants were highly motivated while some other individuals were moderately motivated to fulfill their dreams.

Discussion

The process of Effectuation reasoning is essential to explain how firms would be created in the absence of a market. Effectuation and causation are two different approaches that are used by entrepreneurs to start their businesses. Entrepreneurs, who used the causation process will only rely on their logic and reasoning i.e. they only chalk out and make plans and gather relevant information which helps them to start their business. The causation process occurs when entrepreneurs identify opportunities in their relevant market and desire to compete with other firms.

On the other hand, Effectuation logic is used by those entrepreneurs who wanted to start their firm or business in the absence of any relevant firm or business in the market. The business initiative was the first dimension that was used to identify the main ideas and reasons behind taking initiative for the setup of a business. Chandler et al. (2011) used the term "experiment construct" in their model to measure the business imitative and ideas. According to Chandler et al. (2011), entrepreneurs didn't have enough business information to make a good decision. Experimentation helped them to make a better decision for starting a new business as they had the experience of using different approaches.

The objective of the business initiative was to identify factors that facilitate an individual to start his business. The results showed that participants made decisions to start their business because they wanted to utilize their available resources to fulfill their previous dream. Yoskovitz (2007) provides support to this reasoning by asserting that passion is a massive motivation for an entrepreneur to start his own business. Passion facilitates them to experience different things during each stage of business to achieve success. Passion can help people to move forward even in worse situations.

According to Finkle (2017), Warren Buffet supported this reasoning. He suggested that running a business is a tough duty because things do not always run according to plans that are being made before the start of any business but only passion pushes an individual to keep going on. It was also concluded from the results that few recruited participants decided to take a huge risk for starting a new business by identifying the location of the business. Suitable locations can be described as places where they can easily manage inventories and are easily assessable to customers. In Pakistani culture, most people utilized home vacant spaces to start a new business as they were not in a condition to bear loss during the early days of business. In Pakistan society, people lack acceptability for any change and new things which are being offered by the newly startup business. To overcome the fear of loss, initial business setups are done using easily accessible places such as home vacant places to minimize the loss associated with the new setup.

The results in the domain of "sources of business idea" suggested that the majority of the participants got the idea of starting a new business on the bases of their expertise in a particular field. Utilizing one's knowledge or expertise supports the finding of the present research. Before starting any type or nature of business, the owner of a business needs to have some knowledge that will help him to run his business setup. Knowledge about business helps them to

achieve success shortly. The findings of the present research also suggest that all the participants were reported to have expertise and education regarding the business which leads them towards taking initiative for the business.

Arrangement of funding for business construct explained that recruited individuals used their savings and financial support from their families to run personal businesses. Money can be considered a source of motivation to start a business but considering it is the bottom level of this idea and motivation. In the present world, people start their businesses by investing only a small amount of money they have. People know how to make funds when they are required or when they lack capital enough to start a particular project or business. In Pakistani culture and society, families play a major role and provide support during stressful situations. Closely bonded relationships within families enable them to support their beloved ones whenever they are in a financial crisis. A greater percentage of financial as well emotional support is provided by family.

The findings of the business initiative construct are further consistent with the "Viewpoint bird in hand" principle of Effectual Reasoning which is presented by (Dew et al., 2011), 2001). According to this principle, an effectual entrepreneur need to start a business from what an individual has, a bird, rather than struggling and exerting efforts to catch some other birds. This principle suggested that an individual must plan and think about utilizing the personal resources available to the individual. (Sarasvathy, 2001b) divided this principle into three categories: i) What I have, ii). Who am I, and iii). Whom they know. According to What I have, an effectual entrepreneur starts his business by using his available means and resources. An individual usually identifies these resources and means by observing what potential they have to begin their setup. By identifying his means, an individual starts thinking about what I know which includes the individual's expertise and technical knowledge of the business. An effectual entrepreneur wants to create new things by using his limited number of resources and get benefits by utilizing one's expertise to create new opportunities on his own.

The second objective of the current study was to assess the risk management tactics of recruited participants. Before starting any new business, an effectual entrepreneur usually considers the following things: resources and use of an individual's capabilities, resources to start a new business, and the amount of risk associated with a business plan. Individuals usually estimate the amount of risk which can vary depending upon the circumstances and different conditions.

The results of qualitative analysis of the "affordable loss" domain showed that the majority of the participants take different levels of risk in their life i.e. some individuals use to take calculated risks while other entrepreneurs are likely to take 100% risk. Those participants who reported taking 100% risk in their lives described that they were much more motivated to take a risk and also have higher levels of frustration tolerance. The risk-taking element is inherent in an effectual entrepreneur. If you are not going to take a risk, you would not become an entrepreneur. They need to invest their savings into their businesses.

The individuals who take calculated risks in their lives are described as those who rely on cost-benefit analysis and they are likely to utilize opportunities that they consider more beneficial for them. It was also observed from the results that the life of every individual as an entrepreneur depends upon the amount of calculated risk. There is a difference between the risk taken in individual personal life and one's business. People can never be assured of their decision and risk-taking behavior largely depends upon personal traits. Some individuals believe that to be successful, one must have to take seriously in life and have to bear the consequences. Risk-taking individuals foresee failures as a creative way toward achieving desired goals. This risk-taking behavior suggests that individuals taking a risk in their daily lives would be greater likely to be successful entrepreneurs.

The other similar factor which was found in effectual entrepreneurs was the element of risk-taking in their businesses. The results from the qualitative analysis showed that the majority of the individuals who took risks in their personal lives were more involved in taking risks of their savings and investments despite bearing the loss. It was also deduced from the results that effectual entrepreneurs follow the affordable loss principle for their business because their decisions for business depend on their capacity to bear losses. Taking risks for the business includes that entrepreneurs have to be ready to bear the loss for the invested capital amount, time which one has devoted to the business as well as the reputation of the business and owners themselves. In other words, taking a risk means everything or something must be at stake.

According to Sarasvathy and Dew (2008) entrepreneurs used their resources to start their business in uncertainty without any anxiety about the return from the business as their main

focus is on the process of the business. The affordable loss principle of effectual reasoning helps effectual entrepreneurs to create unexpected returns. Most entrepreneurs become successful only because they were able to take major types of risks for their business and have to be ready to pay them off in times of need. Entrepreneurs have a high level of motivation which urged them to take the risk. Effectual entrepreneurs' don't pay attention to an immediate return, they have to estimate the future sale of the business to get a return according to their desires. The business could not only suffer loss because of its inability to manage the capital of a business but the business can also be affected by the entrepreneur's decisions and the type of strategies which he used for starting them.

Tendencies for risk-taking have also been described in terms of entrepreneur's motivation by (McClelland, 1961). According to McClelland (1961), individuals having high needs for achievement are likely to have moderate tendencies toward risk-taking. The results were significant concerning entrepreneurs where individuals are working with a greater level of uncertainty. Entrepreneurs need to accept the uncertainty of their financial accomplishments, psychological well-being, security of careers, and family relationships. Venkataraman (1997) described a theoretical perspective regarding the chances of uncertainty and risk-taking among entrepreneurs. The theoretical perspective suggests in effectual entrepreneurs, greater and more rewarding consequences are associated with their risk-taking behaviors.

The objective of opportunity recognition was used to assess responses and strategies toward opportunities which were used by the recruited interviewees whenever they found an opportunity that could help them to expand their business. The results showed that individual responses were dependent upon the nature of opportunities.

During the process of entrepreneurship, individuals usually try to find, recognize, or discover creative and attractive opportunities, followed by planning to use the maximum of these opportunities. After utilizing full resources, entrepreneurs assemble the resources and search for potential stakeholders to execute their plans.

Few of the participants used to analyze the risk associated factors before availing of any opportunity which means they used a minimum loss perspective in their business. Risk-associated factors may be a person's inability to handle risk or the risk of money. The majority of the recruited interviewees showed positive responses towards availing opportunities. This approach helped them to become successful effectual entrepreneurs because they knew how to use different strategies to avail opportunities and get expected returns. Every businessman wants to become successful in the business world by availing opportunities according to his business domain or according to his interests. Effectual entrepreneurs' are required to have passion and they cannot afford risks that enable them to achieve something this passion pushes them to avail opportunities for business expansion. Whenever an entrepreneur explores any opportunities they put their efforts to find a better way to avail them which will help them to meet customers' requirements by providing goods and services.

The next objective was to investigate the effects of factors that helped effectual entrepreneurs to select their business among different business options. It was concluded from the results that most of the entrepreneurs started their business in the field in which they had experienced or had certified training courses. The experience and business training through certified courses facilitated them to make better decisions about the firm. It was also concluded from the results that an entrepreneur's decision the choice of a business depends upon advantages that were related to several factors i.e. feasibility and manageability, market trends, and cost-benefit analysis. The majority of recruited interviewees selected their business on the factor of feasibility and manageability which shows that they selected a business in which they did not have to face many difficulties running. They opted to start the form or type of business in which they had experience and expertise. The majority of the recruited participants did market surveys to analyze the demands of customers and on the bases of large demands among customers, they selected their business. Demand is the economic principle that elaborates customers' willingness to buy and their acceptability for a particular product or service which are offered by a particular business. Everyone in the business community wants to produce according to the demands of the customers as they want to avoid future loss in their business. Business recourses are those things that add value to any business and facilitate individuals to achieve success. Business resources include several resources such as Financial, human, educational and physical resources.

Another objective of the study was to find out factors that were recruited and considered by the interviewees while starting their business. The recruited individual considered

several factors i.e. available resources, growth potential, business resource, and their expertise and location before they made their plans to start a new business. The recruited interviewees made decisions for starting a new business by keeping in mind available resources that could be utilized by them. Available resources described by most of the participants included financial resources, family support, or any raw material which they had and wanted to use in creative ways. Any startup business can achieve success if the owner has proper planning and aim to start a new business by utilizing his available resources which lead them to achieve results in an uncertain business environment.

Knowledge and experience in the relevant business must be considered the foremost factor which every individual must think about before making a plan to start a new business. In the business world, the majority of the newly started business suffered losses and were shut down because of a lack of business knowledge. Before taking the setup of starting a big industry, individual needs to start at a very small level to fulfill his dream and then pursue the goal he requires by using all resources to start his new venture. If an individual has a dream to achieve high, he needs to follow business guidelines that can lead them towards achieving one desired goal. It can be concluded from the results that recruited individuals had a passion to start a new business because starting a new business was dependent upon the risks and passion which was observed in the studied sample. Recruited individuals started their business in the relevant field of their expertise and business knowledge which showed that they had effective knowledge, and creative minds to follow the approach of affordable loss principle of effectual reasoning.

The results explained the importance of the "Suitable location factors". The majority of the recruited individuals paid attention to this factor as they wanted to give an accessible approach to their customers for their offered products or services to get expected returns. The results from the present research also explained that participants of the study took decisions for starting a new business depending on the business growth potential. Growth potential means a business's ability to generate expected outcomes by increasing the production of the business. It was also concluded from the results that the majority of the participants had direct experience related to current business. Few of the participants had a background in business-related education. The experience and business-related education helped them to manage the business matter in a better way. The participant who did not have any business education usually had business experience related to their current business which enabled them to run the business.

The above-mentioned results can be explained in the light of the "Affordable Loss" principle of effectual reasoning. All the recruited interviewees reported starting their business by utilizing what they had, their expertise, knowledge, and paying all those factors which were considered by every entrepreneur for starting any kind of business to bear less amount of loss. It was concluded from the results that effectual entrepreneurs get several benefits by taking a risk in business or their lives. Entrepreneurs are likely to take risks, are more flexible, and are more creative to find different ways of possibilities to achieve the desired position. The ability to take risks enables them to build more confidence to use their strength and capabilities to utilize their available resources in a better way. Most people go through risks as they wanted to become successful. The results of affordable loss were supported by the concept of business management skills which are considered key to success.

The "Lemonade" principle of effectual reasoning was witnessed among all of the recruited individuals. Availing opportunities which matched their resources would help them to increase their business profit and facilitated them to expand their business. The effectual entrepreneur wants to exploit unwanted events. This factor is found in effectual entrepreneurs only because they are made up with the mindset which allowed them to avail opportunities matching their resources rather than putting restrictions on them. The open mindset of the entrepreneurs helped them to take on challenges by adopting change whenever they will find opportunities in different areas of their business. Effectual entrepreneurs can give a positive response to the opportunities which arise according to their business interest and they put their efforts to convert unwanted results into their wanted results.

The results further suggest that interviewees wanted to grasp opportunities while keeping in mind several important factors that are considered the most essential ingredients for their business. The finding of the results was supported by Blaug (1994) who suggested the contingencies about the future of their business lead to an effectual entrepreneur to get positive results rather than indulge them in market competition (SARASVATHY & KOTHA, 2001).

The other factor which was found under the construct of the "Lemonade" principle was to get responses from the recruited participants in the absence of the current resources to grasp business opportunities. The results explained that the majority of the participants are vigilant toward resources. It can be concluded from the results that effectual entrepreneurs are more flexible to avail opportunities even in the absence of the required resources. The results can be supported by Schere (1982) research, according to which entrepreneurs must have tolerance element for ambiguity as they faced challenges in every phase of business. The challenging nature of entrepreneurs facilitates them to achieve success in the unpredictable business environment.

The fourth construct of the current research was to identify recruited interviewees' "Pre-commitment with friends, family, and customers" to overcome uncertainty which will lead to the principle of affordable loss. Most of the participants discussed their business matters with friends who had expertise in their relevant fields to bring change in their business environment. Present results showed that strategic partnership does not only mean having a partner who provides finance to meet your newly setup capital requirements but also partnering can be described as ideas and suggestions provided by friends, family, and customers. Entrepreneurs always try to build a partnership with those who can help them to improve their business working position. Entrepreneurs' main goal is to make pre-commitment that will lead them to control unexpected things which can happen soon as they want to control things to avoid failures in the future. These pre-commitments help them to use their available recourses to expand their business.

In Pakistani culture, friends and family are the main sources for individuals to get million dollars advice for their business. Pakistani society and its members are closely and culturally knit. Friends and family usually care about their individuals, indirectly they also care about your business, knowledge, success, and future. As a result of this family and friends are likely to take interest in one's business and give honest suggestions to improve and expand business by utilizing available resources and capabilities. Usually, people in our society live in a joint family system and they are in usual practice to share their business matters as well as their matters with other family members or elders to get useful advice from experienced persons. This point can provide favor for the present research according to which entrepreneurs were likely to take suggestions, advice, and support from friends and family. This objective was supported by a research study conducted by Read et al. (2009), during which it was explained that an individual must consider its commitments to suppliers and customers and focus on its partnering to bring improvements in the business.

Research has been conducted to identify customer satisfaction which showed that, most businesses achieved success due to high preferences and interest by customers. This suggests the importance of customers' demands and requirements which play a key role in the success of the business. Every entrepreneur wants to behave in a manner that will help him to attract and satisfy customers. Satisfaction of customers depends only on two things: i) how are they treated by an owner and ii) Products are according to the need and requirements of customers. The success of a business depends largely on customer satisfaction. In the business world, each organization puts its efforts to fulfill its customers' satisfaction. If the customers of any organization are unhappy so ultimately it will be at loss. According to some surveys, customer satisfaction is most important in the business world as compared to past business practices.

The qualitative results of the present study explained that the majority of the recruited individuals get suggestions from their customers because they wanted to satisfy their customers. They knew that their businesses depend largely on their customers. The participants reported that they view their customers as the running source behind their business. Small businessmen have direct interaction with their customers, they know the demands of the customers and they knew how to satisfy them. Most of the big entrepreneurs and companies have started the practice of front-line association with their customers like small businesses do by allocating managers and staff who had direct interaction with their customers.

This objective is supported by the principle "Strategic Partnership or Alliance Partnership" of the Effectual Reasoning Theory (Sarasvathy, 2001b). According to Sarasvathy et al. (2003), entrepreneurs need to produce according to the requirements of customers to reduce the amount of uncertainty which is ultimately supported by the principle of affordable loss. In Pakistani culture, feedback forms and conversations are done or get filled to get feedback from their customers regarding their tastes. Moreover, Qasim and Mahmood (2021) have reported a rise in technopreneurship in Pakistan.

The fifth objective of the study was to identify the ideas of participants regarding the "Establishment of partnership with customers or with stakeholders in initial business days". According to Chandler et al. (2011) entrepreneurs build a partnership to overcome unexpected contingencies with customers, suppliers, or with other persons who have the same goal and are ready to work with them. For starting a new business, an individual is required to pay attention to those ventures which play a vital role to run a business. Ventures can be of two types: i) Financial resources, and ii) Venture in the shape of a strategic partnership that requires an individual to overcome unpredictable outcomes.

Entrepreneurs can build partnerships not only to get finance, but they can also get a partnership in the shape of free services or the shape of business support from their family, friends, or another network, to get low-cost resources. The result of the qualitative analysis explained that the majority of the individuals did not get support to get low-cost resources. Few participants reported that they used their family contacts, and friends' support to get the low-cost resources that they required in the business during the initial setup. The principle of "Crazy Quilt" which was used by Sarasvathy (2001a) in her effectual reasoning model provided support for the present results. According to Genadinik (2018), if the family of an individual supported him in his business matters, he would be able to fight in worse conditions. The business can involve family and friends to get their support. For example, if a woman has her job and a man has his own but he has a hidden ability to become the main role in her wife's success.

The sixth aim of this research was to find out and assess the "Motivation Level" of the recruited individuals towards taking advantage of what they have like their available resources and capabilities to expand their business or to create a new venture in near future. The results of this construct showed that all recruited individuals had the greater motivation and they wanted to use their available resources in a more suitable way to get an advantage. The expertise of an individual is a major source that urges them to go further. If an individual has money but he doesn't have motivation, he would not be able to achieve his desired goals. To become an entrepreneur, it is essential to identify suitable opportunities according to your interests. The success of any person, organization, or entrepreneur depends only upon his desired goals and ambitions. If they have the willingness to achieve something so definitely they will find out all possible ways. Opportunities also have a positive influence on an entrepreneur. Opportunities put the energy of motivation in entrepreneurs to grasp them.

This objective was supported by the "Need for Achievement" factor which was presented by Shane et al. (2003) in their research study on "Entrepreneurial Motivation". The person who has a high level of need for achievement will be ready to utilize his resources and capabilities by taking a moderate level of risk. The results can also be explained in the light of the "Bird in Hand" principle of Effectual Theory. Recruited participants were highly motivated to use their capabilities like knowledge and their business expertise by investing what they have which refers to their financial resources like the money they have, money in form of profit from their already established business, personal savings, and other used financial support from friends and family.

Conclusion

The use of the Effectual Reasoning model in the context of entrepreneurs of Pakistan was an unexplored area of entrepreneurship research. Empirical research studies conducted on this subject matter are even few. The purpose of the present research study was to confirm the role of Effectual theory in explaining the startup behaviors of entrepreneurs in Pakistan. The findings of the present confirmatory research explained that across an extensive number of industries in Pakistan, the participants of the present research tended to use effectual logic rather than causal logic. Principles of effectual logic enabled entrepreneurs to take into consideration the vital elements for entrepreneurial success. The present research analysis and results were discussed using all the principles of the effectual theory model which were explained and developed by (Sarasvathy et al., 2001). Furthermore, the findings suggested results similar to those concluded in effectual entrepreneurship research carried out in other parts of the world. The findings also indicated gaps within the existing literature. Moreover, subsequent analysis and discussion offer two brief suggestions for future research. The first suggestion is the need to conduct additional empirical evidence about effectual entrepreneurs using qualitative and quantitative data. The second suggestion is to gather data from the students entering and leaving business school to understand the interests of students in using effectual or causal logic.

References

- Abelson, R. P. (1976). Script processing in attitude formation and decision making.
- Ahuja, G., & Morris Lampert, C. (2001). Entrepreneurship in the large corporation: A longitudinal study of how established firms create breakthrough inventions. *Strategic management journal*, 22(6-7), 521-543.
- Ali, A., Irfan, S., & Salman, Y. (2020). University Business Incubators: A Systematic Literature Review from 2000 to 2019. *Abasyn University Journal of Social Sciences*, 13(2).
- Alvarez, S. A., & Barney, J. B. (2007). Discovery and creation: Alternative theories of entrepreneurial action. *Strategic entrepreneurship journal*, 1(1-2), 11-26.
- Amankwaa, L. (2016). CREATING PROTOCOLS FOR TRUSTWORTHINESS IN QUALITATIVE RESEARCH. *Journal of cultural diversity*, 23(3).
- Barreto, H. (2013). *The entrepreneur in microeconomic theory: Disappearance and explanation*. Routledge.
- Blaug, M. (1994). Second thoughts on the Keynesian revolution. *John Maynard Keynes, Critical Assessment: Second series*, 5(2), 378.
- Brettel, M., Bendig, D., Keller, M., Friederichsen, N., & Rosenberg, M. (2014). Effectuation in manufacturing: How entrepreneurial decision-making techniques can be used to deal with uncertainty in manufacturing. *Procedia CIRP*, 17, 611-616.
- Busenitz, L. W., & Barney, J. B. (1997). Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. *Journal of business venturing*, 12(1), 9-30.
- Cantillon, R. (1755). An essay on commerce in general. *History of economic thought books*.
- Chandler, G. N., DeTienne, D. R., McKelvie, A., & Mumford, T. V. (2011). Causation and effectuation processes: A validation study. *Journal of business venturing*, 26(3), 375-390.
- Cooper, A. (2003). Entrepreneurship: The past, the present, the future. In *Handbook of entrepreneurship research* (pp. 21-34). Springer.
- Davidsson, P., & Gordon, S. R. (2009). Nascent entrepreneur (ship) research: A review.
- Dew, N., Read, S., Sarasvathy, S. D., & Wiltbank, R. (2011). On the entrepreneurial genesis of new markets: effectual transformations versus causal search and selection. *Journal of Evolutionary Economics*, 21(2), 231-253.
- Dunning, D., Heath, C., & Suls, J. M. (2004). Flawed self-assessment: Implications for health, education, and the workplace. *Psychological science in the public interest*, 5(3), 69-106.
- Eisenhardt, K. M., & Bourgeois III, L. J. (1988). Politics of strategic decision making in high-velocity environments: Toward a midrange theory. *Academy of management journal*, 31(4), 737-770.
- Faiez, G., & Younes, B. (2012). A cognitive approach for analyzing the influence of effectual network on entrepreneurs actions. *Interdisciplinary Journal of Contemporary Research in Business*, 3(9), 1409-1431.
- Fatima, T., & Bilal, A. R. (2020). Individual Entrepreneurial Orientation, Access to Finance, and SME Performance: Fortifying Role of Entrepreneurial Alertness. *Abasyn University Journal of Social Sciences*, 13(1).
- Finkle, T. A. (2017). Warren E. Buffett: Entrepreneur, investor, and philanthropist. *Journal of Business Cases and Applications*, 19(1), 1-19.
- Forbes, D. P., & Milliken, F. J. (1999). Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. *Academy of management review*, 24(3), 489-505.
- Genadinik, A. (2018). *Business Plan Template and Example: How to Write a Business Plan*.
- Goel, S., & Karri, R. (2006). Entrepreneurs, effectual logic, and over-trust. *Entrepreneurship theory and practice*, 30(4), 477-493.
- Gunawan, J. (2015). Ensuring trustworthiness in qualitative research. *Belitung Nursing Journal*, 1(1), 10-11.
- Harms, R., & Schiele, H. (2012). Antecedents and consequences of effectuation and causation in the international new venture creation process. *Journal of international entrepreneurship*, 10(2), 95-116.
- Hayward, M. L., Forster, W. R., Sarasvathy, S. D., & Fredrickson, B. L. (2010). Beyond hubris: How highly confident entrepreneurs rebound to venture again. *Journal of business venturing*, 25(6), 569-578.

- Hébert, R. F., & Link, A. N. (1989). In search of the meaning of entrepreneurship. *Small business economics*, 1(1), 39-49.
- Henninger, P., Brem, A., Giones, F., Bican, P. M., & Wimschneider, C. (2020). Effectuation vs. causation: Can established firms use start-up decision-making principles to stay innovative? *International Journal of Innovation Management*, 24(01), 2050002.
- Ireland, R. D., & Webb, J. W. (2007). Strategic entrepreneurship: Creating competitive advantage through streams of innovation. *Business horizons*, 50(1), 49-59.
- Kalinic, I., Sarasvathy, S., & Forza, C. (2012). Internationalization and effectuation: Explaining entrepreneurial decision-making in uncertain international environments. Proceedings of the 38th Annual Conference of the European International Business Academy (EIBA), Sussex,
- Kalinic, I., Sarasvathy, S. D., & Forza, C. (2014). 'Expect the unexpected': Implications of effectual logic on the internationalization process. *International Business Review*, 23(3), 635-647.
- Karlsson, T., & Honig, B. (2009). Judging a business by its cover: An institutional perspective on new ventures and the business plan. *Journal of business venturing*, 24(1), 27-45.
- McClelland, D. C. (1961). Entrepreneurial behavior.
- Miller, D. (2011). Miller (1983) revisited: A reflection on EO research and some suggestions for the future. *Entrepreneurship theory and practice*, 35(5), 873-894.
- Nguyen, N. M. (2013). *Differences and similarities in the entrepreneurial process of independent new ventures and corporate new ventures* University of Twente].
- Nielsen, S. L., & Lassen, A. H. (2012). Identity in entrepreneurship effectuation theory: a supplementary framework. *International Entrepreneurship and Management Journal*, 8(3), 373-389.
- Pacheco, D. F., York, J. G., Dean, T. J., & Sarasvathy, S. D. (2010). The coevolution of institutional entrepreneurship: A tale of two theories. *Journal of management*, 36(4), 974-1010.
- Peng, X. B., Liu, Y. L., Jiao, Q. Q., Feng, X. B., & Zheng, B. (2020). The nonlinear effect of effectuation and causation on new venture performance: The moderating effect of environmental uncertainty. *Journal of Business Research*, 117, 112-123.
- Politis, D. (2005). The process of entrepreneurial learning: A conceptual framework. *Entrepreneurship theory and practice*, 29(4), 399-424.
- Qasim, Y., & Mahmood, Z. (2021). Why Is Technopreneurship Developing Slowly in Pakistan? *Abasyn University Journal of Social Sciences*, 14(2).
- Read, S., Dew, N., Sarasvathy, S. D., Song, M., & Wiltbank, R. (2009). Marketing under uncertainty: The logic of an effectual approach. *Journal of marketing*, 73(3), 1-18.
- Sarasvathy, S., & Dew, N. (2008). Effectuation and over-trust: Debating Goel and Karri. *Entrepreneurship theory and practice*, 32(4), 727-737.
- SARASVATHY, S., & KOTHA, S. (2001). *Effectuation in the management of knightian uncertainty: evidence from the realnetwork case*.
- Sarasvathy, S. D. (1998). *How do firms come to be? Towards a theory of the prefirm*. Carnegie Mellon University.
- Sarasvathy, S. D. (2001a). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of management review*, 26(2), 243-263.
- Sarasvathy, S. D. (2001b). Effectual reasoning in entrepreneurial decision making: existence and bounds. *Academy of management proceedings*,
- Sarasvathy, S. D., Dew, N., Read, S., & Wiltbank, R. (2001). Effectual entrepreneurial expertise: Existence and bounds. In.
- Sarasvathy, S. D., Dew, N., Velamuri, S. R., & Venkataraman, S. (2003). Three views of entrepreneurial opportunity. In *Handbook of entrepreneurship research* (pp. 141-160). Springer.
- Schere, J. L. (1982). Tolerance of ambiguity as a discriminating variable between entrepreneurs and managers. *Academy of management proceedings*,
- Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial motivation. *Human resource management review*, 13(2), 257-279.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22(2), 63-75.
- Shirokova, G., Osiyevskyy, O., Laskovaia, A., & MahdaviMazdeh, H. (2020). Navigating the emerging market context: Performance implications of effectuation and causation for small and

medium enterprises during adverse economic conditions in Russia. *Strategic entrepreneurship journal*, 14(3), 470-500.

- Venkataraman, S. (1997). Value at risk for a mixture of normal distributions: the use of quasi-Bayesian estimation techniques. *Economic Perspectives-Federal Reserve Bank of Chicago*, 21, 2-13.
- Wiltbank, R., Dew, N., Read, S., & Sarasvathy, S. D. (2006). What to do next? The case for non-predictive strategy. *Strategic management journal*, 27(10), 981-998.
- Yoskovitz, B. (2007). What's the Motivation to Start a Startup. In.
- Zacharakis, A. L., & Shepherd, D. A. (2001). The nature of information and overconfidence on venture capitalists' decision making. *Journal of business venturing*, 16(4), 311-332.
- Zhang, Y., Li, Z., Sha, Y., & Yang, K. (2022). The impact of decision-making styles (effectuation logic and causation logic) on firm performance: a meta-analysis. *Journal of Business & Industrial Marketing*.