

# Entrepreneurial Education & Institutional Environment As Determinants of Entrepreneurial Approach: An Exploratory Conceptualization of Self-efficacy, Locus of Control, Entrepreneurial Intention, Fear of Failure, and Effectuation

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## Abstract

Entrepreneurial approach and the decision-making it involves have always intrigued researchers and entrepreneurs alike. This study intends to investigate how entrepreneurial education, self-efficacy, and internal locus of control impact entrepreneurial intention and fear of failure and how these impact the entrepreneurial decision-making process. We develop a conceptual model where entrepreneurial education, self-efficacy, and internal locus of control impact entrepreneurial intention and fear of failure and then impact the choice to follow synoptic or effectual reasoning to pursue entrepreneurial activities. We also argue that self-efficacy is moderated by both the motivation behind seeking entrepreneurship and the institutional environment. We finally contend that although entrepreneurial education encourages following synoptic approach, institutional environment will influence the entrepreneur to follow an effectual approach.

*Keywords:* Entrepreneurial Education, Institutional Environment, Self-efficacy, Locus of Control, Entrepreneurial Intention, Fear of Failure, Entrepreneurial Approach, Effectuation

## I Introduction

Interest in entrepreneurship as a universal human trend is widely established in the literature. The impact of entrepreneurship on development is significant. What factors affect the entrepreneurial desire and how entrepreneurial development occurs is still a matter of debate in

the field. We intend to study how entrepreneurial education impacts both entrepreneurial intention and fear of failure and how it also impacts the entrepreneur's decision-making as to the entrepreneurial approach to be followed, either synoptic/causal approach or effectual approach. As suggested by the recent entrepreneurship research, entrepreneurs embarking upon their new ventures will either follow a synoptic/causal<sup>1)</sup> approach; establishing their businesses after thorough planning that leads to the achievement of their preset goals (Méthé et. al, 2000; Méthé, 2014), or follow an effectual approach; improvising and making decisions based on available and accessible means and resources without setting specific goals to be achieved (Sarasvathy, 2001; Dew et al, 2009; Perry, Chandler, Markova, 2012). The theory of effectuation developed by Sarasvathy (2001) constitutes a paradigmatic shift in our perceptions of entrepreneurship (for an extensive literature review please refer to Perry et al., 2012). However, the effectuation literature is still nascent, as very few researchers have carried out empirical research and testing of the effectuation approach (Perry et al. 2012). Therefore, the need for further conceptual development that incorporates effectuation into existing entrepreneurial models is important.

We also argue that entrepreneurial education affects the entrepreneur's self-efficacy and that all entrepreneurial education, self-efficacy and internal locus of control impact entrepreneurial intention and fear of failure, which then affects the choice of entrepreneurial approach, whether synoptic or effectual. The literature suggests that entrepreneurial education also directly affects the entrepreneurial approach, as such education encourages entrepreneurs to rigorously plan for and predict the future to achieve a set of specific goals (Sarasvathy, 2001, 2008; Dew et al., 2009), and hence, it encourages them to prefer synoptic/causal reasoning to effectual logic when embarking upon their new ventures. This may lead to unintended results since the effectual approach may be superior when confronting an uncertain environment. Hence, understanding the linkage between entrepreneurial education and the reasoning approach taken by entrepreneurs is important.

Further, we contend that entrepreneurial self-efficacy is moderated by both the motivation behind seeking entrepreneurship; whether out of necessity or perceived opportunity (Lee et al., 2005), and also the institutional environment (Wennberg et al., 2013); the hard environment of laws, regulations, and enabling organizations, and the soft environment of norms and cognitions such as uncertainty avoidance and collectivism. As a result, we argue that although entrepreneurial education encourages following the causal approach, the institutional environment especially in a developing economy confronts the entrepreneur with uncertainty and

channels the entrepreneur into following an effectual approach.

In future studies we intend to test our conceptual model by measuring our variables through studying two groups of entrepreneurs. The first group will include participants of an entrepreneurial training program within a similar age group, level of education, and other demographics, that will be studied before and after their training program within a certain period of time. The other group will act as a controlling group and will include entrepreneurs who have not participated in an entrepreneurial training program and share the same demographics of the first group. We will control for age, gender, level of education, previous entrepreneurial experience, and other demographics.

We intend to test our conceptual model by studying a group of entrepreneurs from Yemen. Sarasvathy (2001, 2008) claims that entrepreneurs, due to the lack of resources and time, may incline to the effectual approach where they adapt through exploiting a set of certain means (who they are, whom they know, and what they know), instead of conducting rigorous planning and competitiveness analyses. We tend to favor such argument especially in an underdeveloped market like Yemen, where entrepreneurs have a very limited access to the necessary resources that using the synoptic approach entails for new venture creation. According to the latest available Global Entrepreneurship Monitor (GEM) report on Yemen (GEM-MENA, 2010), Yemeni adults score the highest rates (over 95%) in all the 55 countries studied by the GEM in viewing entrepreneurship as a desirable career choice, viewing successful entrepreneurs highly and respectably, and reporting to often see stories in the media about successful new businesses (GEM-MENA, 2010). They also reported a high fear of failure (about 43%) and low entrepreneurial intention (27%) to start a business in the next three years (Rosinaite, 2013; GEM-MENA, 2010). However, Yemenis reported a high level of entrepreneurial self-efficacy (over 60%) among the seven GEM-MENA countries. Based on the previous results, we assume that studying Yemeni entrepreneurs will help us examine if our conceptual model holds valid.

In this paper, we lay out the conceptual model and supporting research that will be tested in subsequent papers. We turn our attention to each element of the conceptual model in turn before presenting the full model. We first turn our attention to the element of entrepreneurial education.

## II Literature Review & Hypothetical Model

### 1 Entrepreneurial Education

Drucker (1985) has suggested that entrepreneurship is a “practice of innovation” where it is “neither a science nor an art” but rather a knowledge base that can be learned like any other practice e.g., medicine or engineering. Entrepreneurship education could be broadly defined as the knowledge transfer of how, by whom, and with what effects, opportunities to create future goods and services are discovered, evaluated and exploited (Hindle, 2007). It is any pedagogical program or educational process concerned with entrepreneurial skills and attitudes, which enhances the development of certain personal abilities and does not exclusively focus on the immediate creation of new ventures (Fayolle et al., 2006a).

In a ten-year literature review of entrepreneurship education, Gorman et al. (1997) stated that most of the empirical studies they reviewed had indicated that entrepreneurship could be taught, or at least encouraged through entrepreneurial education. Also, education programs can have an impact on entrepreneurial intention (Krueger & Carsrud, 1993; Noel, 2001; Fayolle et al., 2006a). Although, according to Ronstadt (1990), entrepreneurial education and the way it impacts entrepreneurs remain ambivalent and so does the study of traditional business disciplines such as marketing, management, and economics. Yet, there are still valid indications that entrepreneurs who receive entrepreneurial education will perform better than those who have not, as education improves their cognition as to knowing when, how, and where they could embark on their entrepreneurial activities (Ronstadt, 1990).

To study the impact of entrepreneurship education on actual entrepreneurial activity, entrepreneurial intention, and self-efficacy, Noel (2001) surveyed three groups of university graduates who graduated within a period of 8 years. They were entrepreneurship majors, non-entrepreneurship business majors, and non-business majors. Entrepreneurship graduates were found to have opened more businesses than graduates from other groups. Although entrepreneurial intention was also higher among entrepreneurship graduates as they intended to start new ventures within two to five years, self-efficacy was associated with neither actual entrepreneurial activity nor intention. Another study by Farashah (2013) examined the process of impact of entrepreneurship education and training on attitudes toward entrepreneurship, perception of social norms, self-efficacy and entrepreneurial intention of Iranian individuals. He argued that the likelihood of entrepreneurial intention increases by 1.3 times after completion of one entrepreneurship course. He also demonstrated that education and training, self-efficacy,

fear of failure, entrepreneurs' status in society, and desirability of entrepreneurial career, are significant predictors of entrepreneurial intention.

Ajzen (1991) contended that the perceived behavioral control, one of the antecedents of intention he identified in his theory of planned behavior, is most compatible with the concept of self-efficacy suggested by Bandura (1977, 1982). In his studies he would rather use the term Self-efficacy interchangeably with the term Perceived Behavioral Control. The other antecedents of intention; attitude towards behavior and subjective norms, will be explained in another section of this paper.

Fayolle et al. (2006a) modeled the development of entrepreneurial intention through pedagogical processes and learning contexts using a framework developed mainly on the basis of the theory of planned behavior (Ajzen, 1988, 1991). They found that while entrepreneurship education had a strong measurable impact on the entrepreneurial intention of students, it had a positive yet not very significant impact on their perceived behavioral control or self-efficacy. In another study and also based on the theory of planned behavior, Fayolle et al. (2006b) assessed how entrepreneurship education programs could influence students' entrepreneurial attitudes and intentions. They surveyed students before and after a 3-day seminar on entrepreneurship following a Specialized Master in Management at a business school. Their results suggested that entrepreneurship education programs could have varying strong positive effects on some students, depending mainly on their background (i.e., age, gender, entrepreneurial background and exposure) and initial perspectives on entrepreneurial intention. Entrepreneurship education had the most positive impact on students with the lowest entrepreneurial intentions, and negatively impacted the students with highest entrepreneurial intentions. Entrepreneurship education also actually decreased the level of entrepreneurial intention for students with no exposure to entrepreneurship or entrepreneurial situations.

Self-efficacy may not be particularly relevant or realistic when a person has relatively little knowledge or information about the behavior e.g., entrepreneurship (Ajzen, 1991). Thus, entrepreneurial education substantially enhances self-efficacy, as learners get a chance to hone their entrepreneurial skills and hence their beliefs about entrepreneurial success (Fayolle et al., 2006a). As the reviewed literature suggests, entrepreneurial education impacts both entrepreneurial intention and fear of failure (Krueger & Carsrud, 1993; Noel, 2001; Fayolle et al., 2006a & b; Farashah, 2013), and also impacts the level of self-efficacy (Farashah, 2013; Fayolle et al., 2006a). We therefore propose the following hypotheses:

**H1** *Entrepreneurial education positively affects entrepreneurial intention and negatively affects fear of failure*

**H2** *Entrepreneurial education positively affects entrepreneurial self-efficacy*

We next examine how entrepreneurial self-efficacy influences entrepreneurial intention and fear of failure.

## **2 Self-efficacy**

The concept of self-efficacy, which was derived from social learning theory (Bandura, 1977, 1982), is “concerned with judgments of how well one can execute courses of action required to deal with prospective situations” (Bandura, 1982, p. 122). Self-efficacy beliefs can influence the thought patterns and emotional reactions, as well as the choice and preparation for activities (Ajzen, 1991). Self-efficacy is more accurately predicted when it is studied in a social system where the behavior is evaluated (Bandura, 1977) and this behavior, i.e., entrepreneurship, is culturally legitimate (Klyver & Thornton, 2010). According to the theory of planned behavior, self-efficacy and intention could be directly used together to predict achievement, as strong intentions combined with high self-efficacy eventually boost perseverance and success at performing an activity (Ajzen, 1991; Boyd & Vozikis, 1994).

The literature suggests that entrepreneurial self-efficacy, an individual’s perceived competence to start a new entrepreneurial venture, is a construct that could measure an individual’s confidence and belief in his ability to successfully start an entrepreneurial venture (Boyd & Vozikis, 1994; McGee et al., 2009; Karlsson & Moberg, 2013). Entrepreneurial self-efficacy is positively related to entrepreneurial intention (Shook & Bratianu, 2010; Lee et al., 2005). However, measuring entrepreneurial self-efficacy itself could be a daunting process, as its definition, dimensionality, and measurement remain inconsistent in the literature (McGee et al., 2009). To tackle such concern, McGee et al. (2009) developed a multi-dimensional instrument where entrepreneurial self-efficacy could be measured and also explain for the behavior of nascent entrepreneurs. From their study they identified five dimensions that could help measure entrepreneurial self-efficacy; namely, searching, planning, marshaling, implementation of human resources and implementation of financial resources. They also found that these five dimensions and nascent entrepreneurship are positively related and that entrepreneurial self-efficacy could measure the increased confidence of nascent entrepreneurs embarking upon their new ventures.

Entrepreneurial self-efficacy is influenced by the acquisition of management tools and exposure to entrepreneurial situations (Krueger & Carsrud, 1993; Fayolle et al., 2006a). It could be developed and enhanced by experiences of mastery, vicarious or observational learning, verbal or social persuasion, and judgments of emotional or physiological states (Bandura, 1977, 1982; Boyd & Vozikis, 1994). Mastery experiences appear to be the most effective method to develop self-efficacy, as individuals tend to learn from the recurrence of their achievements (Bandura, 1977, 1982; Boyd & Vozikis, 1994). However, when their achievements are easily attained, failure tends to quickly discourage them and affect their self-efficacy (Boyd & Vozikis, 1994). Also, as learning about entrepreneurship enhances individuals' self-efficacy, it could concurrently decrease their entrepreneurial intention (Krueger & Carsrud, 1993). Based on the reviewed literature, we propose our third hypothesis as follows:

**H3** *Entrepreneurial self-efficacy positively affects entrepreneurial intention and negatively affects fear of failure*

**(1) Necessity- and Opportunity-driven Entrepreneurship**

Self-efficacy is one of many individual factors that could significantly predict and influence entrepreneurial intention. Entrepreneurs are thought to seek entrepreneurship either because they are unemployed and have to survive; necessity entrepreneurship, or because they identified a viable business opportunity they want to seize; opportunity entrepreneurship (Reynolds et al., 2002). It is very apparent that the level of entrepreneurial self-efficacy could significantly differ from a necessity to an opportunity entrepreneurship seeker (Lee et al., 2005; GEM-MENA, 2010). Also, it is evident that the rate of necessity entrepreneurship is often higher than the rate of opportunity entrepreneurship in developing countries (Reynolds et al., 2002; GEM-MENA, 2010).

Lee et al. (2005) studied how self-efficacy, fear of failure, perception of opportunities, and knowledge of other entrepreneurs influence entrepreneurial intention in Singapore, Hong Kong, and Taiwan. They found that self-efficacy had stronger influence, among the other factors, on the entrepreneurial intention of the individuals seeking entrepreneurship based on opportunity and not necessity. Opportunity entrepreneurs were found to have more pronounced sensitivity to self-efficacy, fear of failure, and other factors than necessity entrepreneurs who seek entrepreneurship to survive. Fear of failure was also found to adversely impact opportunity entrepreneurs in Singapore where the culture discourages entrepreneurial risk-taking, and

more rigid bankruptcy laws are in place with severe penalties and blacklisting of failing entrepreneurs. Based on the literature, we propose the following hypotheses:

**H4** *The motivation behind seeking entrepreneurship (opportunity/necessity) will have a moderating effect on entrepreneurial self-efficacy*

**H4a** *Opportunity entrepreneurship positively affects fear of failure while necessity entrepreneurship has no effect*

**H4b** *Opportunity entrepreneurship positively affects self-efficacy while necessity entrepreneurship has no effect*

## (2) *Institutional Environment*

Klyver & Thornton (2010) analyzed the Global Entrepreneurship Monitor (GEM) data from 51 countries for the period of 2003-2006 to investigate how the relationship between self-efficacy and entrepreneurial intention is dependent on institutional or cultural legitimacy. They studied how this relationship could generally depend on the status of and respect towards successful entrepreneurs. Together, self-efficacy and entrepreneurial intention were found to be universally positively related; however, this relationship becomes weaker in societies where entrepreneurship is highly culturally legitimate and preferable as a vocational career choice. Klyver & Thornton (2010) also contended that the effect of self-efficacy is moderated by the institutional environment context surrounding the individuals, where self-efficacy could positively impact intention and possibly behavior in supportive environments, but eventually it would negatively impact success as more incompetent individuals might seek entrepreneurship.

Wennberg et al. (2013) argued that the perceptions and motivations that stimulate the individual's entrepreneurial intention are dependent on informal institutions such as culture and behavioral norms. They examined how the effects of individual's self-efficacy and fear of failure upon entrepreneurial entry are reliant on the national cultural practices of institutional collectivism, uncertainty avoidance, and performance orientation. They analyzed a total of 8 years of survey data from the Global Entrepreneurship Monitor (GEM) and the Global Leadership and Organizational Behavior Effectiveness (GLOBE) study for 42 countries and determined that the positive effect of self-efficacy on entry is moderated by the cultural practices of institutional collectivism and performance orientation or encouragement of innovation by the community. Self-efficacy was found to be strongly and positively related with entrepreneurial

entry the more the country's culture is predominantly inclined towards uncertainty avoidance. Inversely, Wennberg et al. (2013) also found that the negative effect of fear of failure on entrepreneurial entry is moderated by institutional collectivism and uncertainty avoidance.

Based on the literature, we contend that the institutional environment will have a moderating effect on entrepreneurial self-efficacy. Sensitivity or perception of importance of these institutional factors will impact the entrepreneur. This leads us to our fifth hypothesis:

**H5** *The institutional environment will have a moderating effect on entrepreneurial self-efficacy*

**H5a** *Low levels of institutional collectivism positively affect entrepreneurial self-efficacy and negatively affect entrepreneurial intention*

**H5b** *High levels of institutional collectivism positively affect fear of failure and negatively affect entrepreneurial intention*

**H5c** *High uncertainty avoidance negatively affects entrepreneurial self-efficacy, positively affects fear of failure, and negatively affects entrepreneurial intention*

### **3 Locus of Control**

Based on social learning theory, Rotter (1966) developed the concept of locus of control, a cognitive component that has seen great interest by researchers and is considered one of the most studied traits in the entrepreneurship research field (Perry, 1990; Kroeck et al., 2010; Hansemark, 1998, 2003; Mueller & Thomas, 2001). According to Rotter (1966), individuals could have either an internal or external locus of control. Individuals with an internal locus of control tend to believe they have control over their outcomes and therefore attribute their success or failure to the effort they have exerted, whereas those with an external locus of control believe that they have no control over their outcomes and that external factors such as luck or fate control their success or failure (Rotter, 1966). The literature indicates that internal locus of control is related to and impacts entrepreneurial intention to create new ventures (Perry, 1990; Kroeck et al., 2010; Hansemark, 2003).

There is a significant difference between self-efficacy and locus of control (Ajzen, 1991; Boyd & Vozikis, 1994), as self-efficacy refers to the individual's perceptions of the ease or difficulty of performing a certain task or behavior (Bandura, 1977; Ajzen, 1991), whereas locus of control is a generalized expectation that remains constant in different situations and types of action (Rotter, 1966; Ajzen, 1991). An individual may, therefore, have a high internal locus of control and generally believe that his outcomes are contingent on his own efforts, yet, at the same time

he might have a low self-efficacy and believe that his chances of e.g., becoming a successful entrepreneur are very low (Ajzen, 1991).

Kroeck et al. (2010) found significant differences in locus of control between nascent entrepreneurs and non-entrepreneurs, with entrepreneurs scoring higher than non-entrepreneurs in the internal locus of control scale. They also argued that internal locus of control differed for certain demographic characteristics such as gender, with female entrepreneurs scoring higher in the internal locus than males. According to Kroeck et al. (2010), this is due to the lower expectations of females for the availability of mainly financial resources and technical support to them compared to male entrepreneurs. They also found differences in internal locus among different ethnicities; Black, White/Caucasian, and Hispanic, with black entrepreneurs reporting higher internal locus scores than other ethnicities' entrepreneurs. This was attributed partially to the lower expectation of black entrepreneurs for obtaining venture capital as compared to other ethnicities (Kroeck et al., 2010).

Hansemark (1998) examined the change in locus of control and need for achievement of individuals in a nine-month entrepreneurship education program in Sweden, controlling for gender, age, and educational level. He found that participating in an entrepreneurship education program increased internal orientation of locus of control and also increased need for achievement with no significant differences among the control variables, whereas no change occurred in the control group of non-participants. Hansemark conducted another study years later (Hansemark, 2003), where he collected follow-up data in addition to the personal characteristics he measured in the previous study (Hansemark, 1998) to examine any connection between need for achievement and locus of control and the entrepreneurial activity or starting a new venture, controlling for gender. Need for achievement was found to have no predictive validity on entrepreneurial activity regardless of gender. However, internal locus of control had a predictive validity only for men and was suggested as prerequisite for entrepreneurial activity (Hansemark, 2003).

Based on the reviewed literature, we contend that internal locus of control will have a positive relationship with entrepreneurial intention and negative relationship with fear of failure. This leads us to our next hypothesis:

**H6** *Internal locus of control positively affects entrepreneurial intention and negatively affects fear of failure*

#### 4 Entrepreneurial Intention and Fear of Failure

Entrepreneurial intention could be defined as the expressed intention to start a new venture at some time in the future (Dickson et al., 2008). Entrepreneurial intention has been examined mostly based on the work of Ajzen (1988, 1991) on the theory of planned behavior (Krueger & Carsrud, 1993; Van Gelderen et al., 2008; Dickson et al., 2008; Fayolle et al., 2006a, 2006b). Entrepreneurial intention has also been considered as the best predictor of entrepreneurial action and performance (Krueger & Carsrud, 1993) and is the most often studied antecedent of venture creation (Dickson et al., 2008). Several studies have looked at entrepreneurial intention and how it is impacted by entrepreneurship education, self-efficacy, and locus of control (Krueger & Carsrud, 1993; Lee et al., 2005; Fayolle et al., 2006a, 2006b; Hansemark, 1998).

Based on Ajzen's theory of planned behavior (1988, 1991), intention is assumed to capture the motivational factors that influence a certain behavior as they could indicate how hard people are willing to try and how much effort they are planning to exert in order to perform a certain behavior. Behavioral intention results from three conceptual antecedents; attitude towards behavior or the degree to which an individual favorably evaluates the behavior or not, subjective norms or perceived social pressures to perform the behavior or not, and perceived behavioral control (self-efficacy) or perceived ease or difficulty of performing a behavior (Ajzen, 1991). He argues that performance is contingent on intention, where it could increase as intention becomes stronger. However, Ajzen (1991) postulated that a behavioral intention could develop into a behavior only if that behavior is under volitional control, where the individual willingly decides whether to perform the behavior or not. He also contended that non-motivational factors such as the availability of basic opportunities and resources like time, money, skills, and cooperation of others, impact performance to a certain degree as these factors represent people's actual control over the behavior and determine, together with the behavioral intention, the success of the individual's performance.

Failure is usually defined as the condition or fact where some desired result or end could not be achieved due to insufficient performance of a significant task by an individual or the fact that things in a certain situation did not go well as expected (Politis & Gabrielsson, 2009). Fear of failure is defined as the capacity or propensity to experience shame or humiliation as a consequence to failure (Atkinson, 1957, 1966). Such fear could have a significant influence on individuals' motivation to achieve their goals and might also inhibit their business aspirations (Burnstein, 1963). Although the recurrence of failure in the process of new venture creation should be seen as an accepted and natural outcome (Politis & Gabrielsson, 2009), the decisions

that lead to exploiting a business opportunity or not are affected by fear of failure (Welpel et al., 2012).

Cope (2011) indicated that previous entrepreneurial experience, particularly with venture failure, could constitute a distinctive learning experience where entrepreneurs learn to positively view failure. Cope argued that such learning experiences strongly impact the entrepreneur's knowledge leading to his recovery and re-emergence from failure. Learning from failure also increases the readiness of the entrepreneur for future entrepreneurial activities, through four learning task outcomes of failure that Cope (2011) has identified. These learning task dimensions are; learning about oneself's traits and areas of development, the failing venture and why it failed, the nature and management of social networks and relationships, and learning about more effective venture management. Through these learning outcomes of failure, entrepreneurs arguably become more aware of their abilities and also broaden their entrepreneurial skills and knowledge base, leading eventually to a successful recurrence of new ventures (Cope, 2011).

Politis & Gabrielsson (2009) used theories of experiential learning to examine why and how some entrepreneurs view failure more positively than others. Through surveying Swedish entrepreneurs who have already started new ventures, they found that prior startup experience is strongly associated with a more positive attitude towards failure. The experience from a previous business closure was also found to positively affect the entrepreneurs' attitude towards failure, and entrepreneurs' experiences with closure out of poor performance were deemed very valuable to their learning compared to closure for personal reasons (Politis & Gabrielsson, 2009).

McGregor & Elliot (2005) argued that fear of failure is a self-evaluative framework in which failure is an indicator of overall incompetence where the self is feared to be rejected and abandoned by significant others. Recognizing that experiencing shame causes severe distress, the individual learns to orient toward failure and seeks to avoid it in achievement situations. According to McGregor & Elliot (2005), individuals high in fear of failure reported more shame upon a perceived failure experience than did individuals with low fear. Furthermore, shame was found to be a distinct emotional outcome of perceived failure for those high in fear of failure. It was also argued that, when possible, individuals with high fear of failure will tend to avoid achievement situations, as they recognize failure as an unacceptable event that negatively impact their self-worth and relational security. Such individuals are thought to view achievement events not as learning opportunities that could improve their competence or competition

against others, but rather as intimidating experiences where the whole self is at stake. Such view is responsible for the vigilant orientation to failure and recurrent avoidance of it in achievement situations (McGregor & Elliot, 2005).

## 5 Entrepreneurial Approach

We define entrepreneurial approach as that state which exists within the entrepreneur and is triggered by entrepreneurial intention but has not yet been realized by the actual starting of the enterprise. Recent research in the field of entrepreneurship suggests that most entrepreneurs, when trying to set up their new startups, are reverting to instinctive and effectual reasoning instead of careful strategic planning and rigorous competitiveness analysis (Sarasvathy, 2001, 2008). As suggested by the literature, there are two approaches for starting up new ventures; the synoptic or rational approach (causal reasoning) and the spontaneous and improvised approach (effectual reasoning) (Dew et al, 2009; Perry, Chandler, Markova, 2012). It is suggested that entrepreneurs either follow the standard approach of establishing their businesses after thorough planning which leads to the achievement of their preset goals, or they would improvise and make decisions based on available and accessible means and resources without necessarily having certain preset goals in mind.

Causal reasoning, as referred to in this paper, indicates that entrepreneurs follow, in the creation process of their new ventures, a synoptic approach of rational planning (Methé et al., 2000; Methé, 2014). This synoptic approach significantly includes the notion of planning for an ultimate goal to be achieved. This planning is mostly done through rigorous market research that entails the availability of organizational resources and time to be conducted. Sarasvathy (2001, 2008) claims that entrepreneurs, due to the lack of resources and time, might incline to follow the effectual approach where they adapt by exploiting a set of certain means (who they are, what they know, and whom they know), instead of conducting rigorous planning and competitiveness analyses. We tend to favor Sarasvathy argument as, especially in an underdeveloped market like Yemen, entrepreneurs usually have a very limited access to the necessary resources needed when a synoptic approach is followed to embark upon new ventures. The set of means that an entrepreneur exploits when following the effectual approach are:

1. Who they are; (their personal traits, tastes, and abilities)
2. What they know; (their knowledge, not necessarily about subject matter only), and;
3. Whom they know (their social networks and connections)

Entrepreneurial education, just like any formal business education and training, take a pedagogical path that encourages students to rigorously plan for their new ventures or even existing startups (Dew et al, 2009; Sarasvathy, 2001, 2008). Hence, such education encourages these students to prefer causal reasoning to effectual logic when they consider starting their new ventures. In reality, entrepreneurs would usually use both causal and effectual approaches combined together where the preference for a specific approach might depend on the entrepreneurial expertise; whereas, theoretically it is more logical to study causal and effectual approaches as a strict dichotomy (Sarasvathy, 2008: 16). Experienced entrepreneurs tend to use both approaches together as they deem fit, to the contrary of novice entrepreneurs who arguably follow the causal approach (Dew et al., 2009). According to Sarasvathy (2008), the decision to start a new venture based on effectual reasoning is contingent on several principles that influence the decision making process towards seeking entrepreneurial action. These principles are:

- a. The bird-in-hand principle; a means-driven action, contrary to causal goal-driven, where the entrepreneur creates something new with existing means rather than finding new ways to accomplish given goals.
- b. The affordable-loss principle; a pre-commitment by the entrepreneur of what he could afford to lose rather than investing in calculations of expected returns to the business venture.
- c. The crazy-quilt principle; forming partnerships with the stakeholders and garnering their pre-commitment to support the business venture, rather than carrying out rigorous competitive analyses.
- d. The lemonade principle; acknowledging and seizing contingency by leveraging surprises rather than trying to avoid and overcome them.
- e. The pilot-in-the-plane principle; focusing on the activities within the entrepreneur's control rather than limiting entrepreneurial efforts to trying to predict market trends.

Perry et al. (2012) developed an extensive literature review on the theory of effectuation (Sarasvathy, 2001), where they argued that the concept of effectuation constitutes a paradigmatic shift in our perceptions of entrepreneurship. However, they claimed that since its introduction, very few researchers have carried out empirical research and testing of effectuation. According to Perry et al. (2012), the significance of effectuation emanates from its proposition of individuals' behavior in situations where synoptic approach assumptions are absent. They

concluded that the lack of research could be greatly attributed to how the concept of effectuation challenges the conventional established body of research around the causal approach in entrepreneurship field, and how difficult it would be for researchers to develop and validate effectuation measures (Perry et al., 2012).

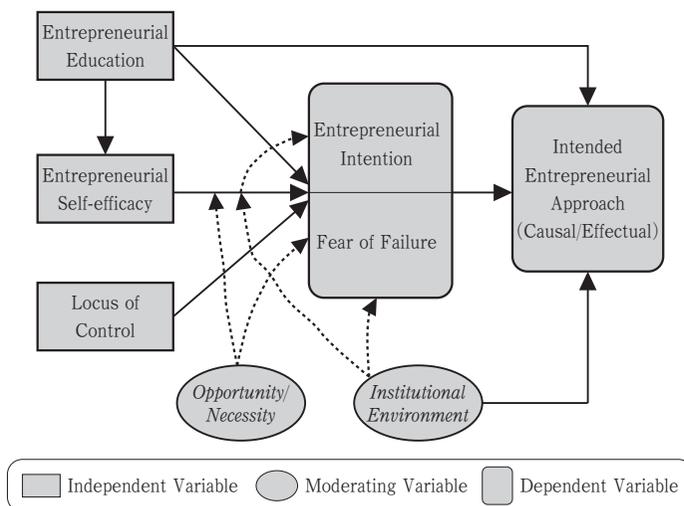
Based on the reviewed literature and the previous arguments, we hypothesize the following:

- H7** *Entrepreneurial education positively affects the preference for causal approach over effectual approach*
- H8** *Increasing entrepreneurial intention positively affects preference for causal approach over effectual approach*
- H9** *Increasing fear of failure positively affects preference for effectual approach over causal approach*
- H10** *Institutional environment positively affects preference for effectual approach over causal approach*

### III Conceptual Model

Subsequent to our extensive review of the literature, we propose the following relationships as depicted in *Figure (1)*:

*Figure (1): Conceptual Model*



#### **IV Expected Results and Conclusion**

Based on the literature review and our proposed hypotheses and conceptual model, we expect to find relationships between our variables as they interact together or affect one another. We first expect that entrepreneurial education will have both positive and negative relationships with the entrepreneurial intention and fear of failure of entrepreneurs in Yemen, respectively. We expect entrepreneurial education to have a positive relationship with the level of entrepreneurial self-efficacy of Yemeni entrepreneurs, and also self-efficacy to have positive and negative relationships with their entrepreneurial intention and fear of failure, respectively. Furthermore, both the motivation behind seeking entrepreneurship and institutional environment will have a moderating effect on the self-efficacy of Yemeni entrepreneurs. We also expect that Yemeni entrepreneurs will have internal locus of control, which will have a positive relationship with their entrepreneurial intention and negative relationship with their fear of failure. Although we expect entrepreneurial education to influence Yemeni entrepreneurs to follow a synoptic approach when they start their new ventures, yet we argue that the institutional environment in Yemen will pull entrepreneurs towards choosing an effectual approach. In the case of Yemen, we believe that entrepreneurs will prefer effectuation reasoning, as the institutional environment does not allow the abundance of resources needed to follow a synoptic approach. Hence, even though they would have received entrepreneurial education, they will be influenced by such environment to revert to effectual reasoning.

The importance of our contribution to the literature stems from the fact that effectuation is considered a paradigmatic shift in entrepreneurship field but its literature remains nascent with minimal conceptual and empirical research and testing of effectuation theory (Perry et al. 2012). As we develop our conceptual model incorporating effectuation into existing entrepreneurial research, we believe our conceptualization will contribute to the body of research by expanding our understanding of how potential entrepreneurs confront the uncertainty of embarking on new ventures.

#### **Note**

- 1) The terms Causal and Synoptic will be used interchangeably in this paper to refer to the same entrepreneurial approach.

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