

An Evaluation of Entrepreneurship Intention Theories

Austin Mwange (Dr)

Lecturer – Business Management

School of Business, ZCAS University

Email: austin.mwange@zcas.edu.zm; lecturer.researcher@gmail.com

Abstract

Entrepreneurship and entrepreneurship intentions studies are anchored on several competing and complementing theories. Therefore, there is need to understand these theories, especially for researchers, when conducting studies focusing on entrepreneurship intentions. It is against this background a study to critically evaluate selected theories that explain entrepreneurship intentions was conducted. This was a literature review based study. A profile of theories used in entrepreneurship intention studies was conducted and an analysis of each entrepreneurship intention theory was done. The study revealed that the most used theories are: The Theory of Reasoned Action, cross-cultural cognitive model creation Shapero's Model of entrepreneurship intentions; The Integrated Model of Entrepreneurial Intentions; the Theory of Planned Behaviour and the structural model of entrepreneurial intent from Lüthje and Franke.

Key words: Entrepreneurship; Entrepreneurship Intentions; Theory of Planned Behaviour, Theory of Reasoned Action, Shapero's Model of Entrepreneurship Intentions.

Introduction

The growing literature on theorising around behavioural intention and entrepreneurship assessing the way researchers construct and evaluate entrepreneurial theories has been the select domain of various methodologies with some employing single theories and others a multiple of theories. Entrepreneurial intentions of students have been studied using a range of theories and research (Krueger et al., 2000). There are some of the most cited in publications and the notable ones are (a) the theory of reasoned action (TRA), (b) the theory of planned behaviour TPB, (c) McClelland achievement theory and (d) structural intention models. These models/theories analyse many different factors affecting individual's entrepreneurial intentions (Bandura, 1997; Peterman and Kennedy, 2003). Typically models/theories cover phenomena which can be divided into three categories as follows: Individual or personality factors; Family background factors and Social and environmental factors.

The theories are grouped as sociological theories, economic theories, cultural theories, and psychological theories. This study is therefore anchored on triangulating common constructs of these models/theories drawn from the three antecedent categories as they build upon each other to explain entrepreneurial intention.

Theories tend to predict or explain social phenomena including intentions. Humans are the active agents in society and do not just involve themselves in entrepreneurial activities but rather do so intentionally by making choices consciously (Krueger, 2007) toward some planned entrepreneurial behaviour (Bird, 1988). Below in Table 1, is a profile of theories from the most cited articles, which have been used in entrepreneurship studies. The table shows that some studies employ a single theory while in other studies; a model is employed covering more than one theory.

A critical examination of studies employing the plethora of theories shows that the variables used to study entrepreneurs have a tendency to change with time (Sánchez, 2011a). However, some researchers have criticized these changes while sticking to their traditional approaches and conceptual limitations and this has created a limited predictive capability (Robinson et al., 1991; Mitchel et al., 2002). The assumptions of theories and models which are relevant to this study are discussed below.

Social Learning Theory

Social learning theory states that human behaviour is continuous reciprocal interaction between influences of the individual (cognitive, namely attention to and retention of information and demonstration of skills), of one's actions, and one's environment (Bandura, 1977; Honig, 2004; Sansone et al., 2004). Social learning theory in essence postulates that people learn from one another as they interact through a mixture of internal and external processes in which they observe and practice behaviour.

Table: 1. Profile of theories used in entrepreneurship

Author	Research Topic	Theory used
Arifatul Husna Mohd, Zainol Bidin, Zakiah Sharif, Adura Ahmad (2016)	Predicting Entrepreneurship Intention Among Malay University Accounting Students In Malaysia	Theory of planned behaviour
Abdullahi Nasiru Abdullahi Nasiru Ooi Yeng Keat Ooi Yeng Keat Muhammad Awais Bhatti Muhammad Awais Bhatti (2015)	Influence of Perceived University Support, Perceived Effective Entrepreneurship Education, Perceived Creativity Disposition, Entrepreneurial Passion for Inventing and Founding on Entrepreneurial Intention	No definite theory however, a model was developed inductively which tested hypotheses: <ul style="list-style-type: none"> a) Hypothesis 1. Entrepreneurial passion for founding has a positive influence on entrepreneurial intention. b) Hypothesis 2. Entrepreneurial passion for inventing has a positive influence on entrepreneurial intention. c) Hypothesis 3. Perceived creativity disposition has a positive influence on entrepreneurial intention. d) Hypothesis 4. Perceived effective entrepreneurship education has a positive influence on entrepreneurial intention. e) Hypothesis 5. Perception of university support
Per Davidsson (1995)	Determinants Of Entrepreneurial Intentions	An economic-psychological model of factors that influence individuals' intentions to go into business for themselves was developed and tested

Table: 1. Profile of theories used in entrepreneurship continued

Author	Research Topic	Theory used
Tahseen Mahmood Aslam , Ahmed Sher Awan, Tariq Mahmood Khan (2012)	An Empirical study of Family back ground and Entrepreneurship as Career selection among University Students of Turkey and Pakistan	Theory of planned behaviour
Marco van Gelderen, Maryse Brand, Mirjam van Praag, Wynand Bodewes, Erik Poutsma, Radboud, and Anita van Gils (2008)	Explaining entrepreneurial intentions by means of the theory of planned behaviour	Theory of planned behaviour
Joao J. Ferreira, Mario L. Raposo, Ricardo Gouveia Rodrigues, Anabela Dinis and Arminda do Paco (2012)	A model of entrepreneurial intention	An application of the psychological and behavioural approaches
Krueger, N., & Kickul, J. (2006).	So you thought the intentions model was simple? Navigating the complexities and interactions of cognitive style, culture, gender, social norms, and intensity on the pathways to	An Integrated Model of Entrepreneurial Intentions.
Kolvereid, L., & Lakovleva, T. (2009).	An Integrated Model of Entrepreneurial Intentions.	Shapero's entrepreneurial event model
Busenitz, L.W., & Lau, C.M. (1996).	A cross-cultural cognitive model of new venture creation.	A cross-cultural cognitive model creation.
Ngugi, J.K., Gakure, R.W., Withaka, S.M. and Kiwara, A.N. (2012)	Application Of Shapero's Model in Explaining Entrepreneurial Intentions Among University Students In Kenya.	Shapero's entrepreneurial event model

Krueger (2000)	The cognitive infrastructure of opportunity emergence	Shapero's entrepreneurial event model
Busenitz, L.W., & Lau, C.M. (1996).	A cross-cultural cognitive model of new venture creation.	A cross-cultural cognitive model
Ngugi, J.K., Gakure, R.W., Withaka, S.M. and Kiwara, A.N. (2012)	Application Of Shapero's Model in Explaining Entrepreneurial Intentions Among University Students In Kenya.	Shapero's entrepreneurial event model

These processes include observational learning, imitation, and knowledgeable or credible, and then practice the behaviour and experience the consequences of the behaviour. Bandura notes that social learning is dependent upon interaction between individuals and the extent to which they succeed or fail in promoting emotional and practical skills, shaping self-perception and perception by others.

Social learning theory is linked to the concepts of self-efficacy (Bandura, 1982; Rae and Carswell, 2001) and reciprocal determinism (Bandura, 1978; Kirby, 2004; Hjorth and Johannisson, 2007). Self-efficacy is an individual's expectation of success in a situation. Levels of self-efficacy equate to the individual's expectation of their contribution to a given setting. Reciprocal determinism is how the individual and her environment affect each other in a way that impacts behaviour. Behaviour is learned not only through observation of others, but then through practicing the actions required to perform the behaviour (Hjorth and Johannisson, 2007; Bratton et al., 2010). Interaction with the environment, including individuals in the environment, affects and provides information about the understanding and practice of behaviours, which can then influence self-efficacy.

Relating to the field of entrepreneurship, Carsrud and Johnson's (1989) and Collins et al. (2006) propose that entrepreneurial behaviour is determined by social context and situations, including role-sets (Aldrich and Zimmer, 1986; Kirby, 2004; Vinton and Alcock, 2004) and patterns of social interaction leading to entrepreneurial self-efficacy (Pruett et al., 2009) in relation to specific resources.

Bandura's theories relate to Vygotsky's Principle which states that behaviour is developed both on a social level and on an individual level (Vygotsky, 1978: 57), initiating with the social level, such that behaviours "originate as actual relationships between individuals." Expanding upon Vygotsky, the focus on the contribution of the others in the social interaction can be understood as a mentor-mentee relationship where the less skilled mentee attempts to accomplish a task, supported by the mentor. If the mentee cannot perform the task to completion, the mentor helps to accomplish the task, in a way that the

mentee can observe and copy the mentor's actions for future tasks (Harré and van Langenhove, 1999; Rasmussen and Sorheim, 2006).

The process of entrepreneurship has been seen as depending on human capital (Kim et al., 2006) and team structure (Sullivan, 2000; Aldrich et al., 2003), such that the entrepreneur is affected by the interaction of individuals, with regard to roles taken (Cope and Watts, 2000; Shepherd and Haynie, 2009). The role sets of nascent entrepreneurs are thus seen as contributing to the development associated to the entrepreneurial action. Senior members, actors in the role-set, influence nascent entrepreneurs as individuals have natural tendencies to defer to the beliefs of others, offsetting their natural experimentation and utility (Aldrich and Martinez, 2001). Within uncertain environments social norms are likely to have the greatest impact on behaviour (Cialdini and Trost, 1998). In the empirical landscape of the thesis, social norms are mainly orchestrated by the role-set of the nascent entrepreneur.

Based on the review presented in the earlier sections of the theory relating to learning, the researcher is of the opinion that learning by getting involved in entrepreneurship in a household or learning school environment combined with mentoring processes between older members or lecturers and instructors can facilitate a decision making process to consider engaging in entrepreneurship.

Self-efficacy

This concept was originally defined by Bandura (1994: 72) as "one's beliefs in their abilities to perform a certain level of performance or desired outcomes. He conceptualised self-efficacy as that which influences situations that affect a person's life". Self-efficacy as a result has become an imperative variable measured in the cognitive study of entrepreneurial behaviour. Boyd and Vozikis (1994) and Shane et al. (2003) stress self-efficacy as a strong predictor of individual outcome in a given activity and its validity to explain why people with equal skills may act differently. Like Chen et al. (1998), by entrepreneurial self-efficacy researchers tend

to understand the self-belief in one's ability to adopt the role and conduct the tasks of an entrepreneur successfully. As a result, studies on self-efficacy in entrepreneurial behaviour are characterized by making differences between entrepreneurs and non-entrepreneurs (Chen et al., 1998; Markman et al., 2002; 2005). In a given situation, entrepreneurs perceive more opportunities than those who have low levels of entrepreneurial self-efficacy, who perceive the same situation to have more costs and greater risks (Cooper & Lucas, 2005; Vecchio, 2003). People who have a higher level of self-efficacy also feel more competent to overcome perceived obstacles and they anticipate more positive results (Vecchio, 2003) and persist in the effective search and organization of activities in the midst of uncertainty (Zhao et al., 2005; Trevelyan, 2009).

Entrepreneurial self-efficacy enables people to differentiate entrepreneurs from managers and it also correlates with the intention of owning a business, pointing to the notion that the individual who believes or feels him or herself most capable of undertaking a business concern is more prone to implementing such behaviour than one who does not feel able to do so (Chen et al., 1998; Markman et al., 2005). Self-efficacy can also be used to identify the reasons why some individuals avoid becoming entrepreneurs, since some people avoid entrepreneurial activities not because of their lack of ability but because they believe that they do not have such ability. Moreover, it can be used to identify areas of weakness or strength for developing the entrepreneurial potential of individuals or communities and to improve the performance of existing entrepreneurs (Chen et al., 1998; Markman et al., 2002).

Further, entrepreneurial self-efficacy studies provide data that help to understand why some businesses do not grow, on the grounds that some entrepreneurs have insufficient self-efficacy to cope with specific tasks (Chen et al., 1998; Boyd and Vozikis, 1994; Vecchio, 2003). All these contributions have lent considerable impetus to clarifying the cognitive study of entrepreneurs. Accordingly, it is crucial to focus on possible factors that might influence the development of self-efficacy. For example, Oliveira et al. (2005), seeking to identify

the impact of the social environment on the self-efficacy beliefs of entrepreneurs, reported that those who had a favourable micro- social environment (support from family and friends) had higher levels of self-efficacy than those who had an unfavourable micro-social environment. Similarly, Markman et al. (2002) and Krueger and Kickul (2006) argue that individuals assess their entrepreneurial skills in reference to perceived resources, opportunities, and obstacles in the environment; thus, the environment exerts an impact on entrepreneurial self- efficacy.

The Theory of Reasoned Action and Planned Behaviour

Researchers have used the theory of reasoned action (TRA) and theory planned behaviour TPB to study not only entrepreneurial intentions but other intentions as well. The two theories are closely related such that they are best described here together, rather than sequentially. The TRA was formulated towards the end of the 1960. Martin Fishbein and Icek Ajzen (1980), developed this theory from previous research that started out as the theory of attitude, which led to the study of attitude and behaviour. The theory was "born largely out of frustration with traditional attitude-behaviour research, much of which found weak correlations between attitude measures and performance of volitional behaviours" (Hale et al., 2002: 259). At that, time psychologists were concluding that attitudes (at least in the form of one-dimensional phenomena) have very limited validity as predictors of future behaviour (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980). As expressed in its final form, the TRA (see Figure: 2) represented by green predictors) combines two sets of belief variables, described under the headings of 'behavioural attitudes' and 'the subjective norm'. TRA was designed to predict and explain human behaviour in specific contexts – behaviours that were volitional in nature and excluded those behaviours that are non-volitional (impulsive, habitual or cravings) (Langer, 1989). Such behaviours were excluded because the performance of people might not be voluntary or because engaging in the behaviours might not involve a conscious decision on the part of the actor. The model also excluded from its scope those behaviours that require skills, unique opportunities or

resources or the cooperation of others to be performed (Liska, 1984). As shown in Figure: 2, the TRA suggests that an individual's behaviour is predicted by his/her behavioural intention. This in turn is determined by the individual's attitude toward and subjective norm regarding the behaviour. Each attitude and subjective norm is affected by a set of noticeable beliefs. An individual may have a large number of beliefs about a given behaviour, but he/she can only attend to a relatively small number of beliefs at a specific moment (Ajzen and Fishbein, 1980). The attended beliefs are noticeable beliefs, which are uppermost in the individual's mind. Specifically, attitude is determined by "behavioural beliefs" concerning the likely consequences of performing the behaviour. Subjective norm is determined by "normative beliefs", which are about the likelihood that important referents encourage or discourage the behaviour. TRA assumes that human beings are rational and they make systematic use of information available to form beliefs (Ajzen and Fishbein, 1980).

TPB (see Figure: 2) represented by orange predictors) built further on the TRA framework. Its design and dissemination followed Bandura's work on self-efficacy and the publication of his Social Cognitive Theory in 1986 (Ajzen 1985, 1988). It is differentiated from the TRA, as the figure shows, by the additional dimension of perceived behavioural control. The theory was revised and extended by Ajzen himself into the theory of planned behaviour. This extension involves the addition of one major predictor, perceived behavioural control, to the model. This addition was made to account for times when people intend to carry out behaviour, but the actual behaviour is thwarted because they lack confidence or control over behaviour (Miller, 2005: 127).

As in the original theory of reasoned action, a central factor in the theory of planned behaviour is the individual's intention to perform a given behaviour. According to the theory, decisions to act or not act are the result of an assessment of the likelihood of specific outcomes associated with the act along with the subjective value assigned to those outcomes. When the assessment produces a positive evaluation and a decision is made (usually) to act.

The TPB is one of the most widely used models of behaviour (Ajzen, 1991) in social science. In this model, intentions are the immediate precursor to the performance of any behaviour. In general, the stronger the intention to perform a given behaviour, the more likely, that it will be performed (Ajzen, 1991).

The Theory of Planned Behaviour (Ajzen, 1988, 1991; Ajzen and Driver, 1991) proposes a model about how human action is guided. It predicts the occurrence of a specific behaviour if the behaviour is intentional and planned. The model as depicted in represents four variables: attitudes, subjective norms and perceived behavioural control that the theory suggests will predict the intention to perform behaviour. The variables in this model reflect psychological constructs and so they have a special meaning within the theory. The TPB includes three independent predictors of intention: attitudes, subjective norm, and perceived behavioural control (PBC).

Behaviour beliefs and attitude toward behaviour represented by green in the model and these are comprised of:

- **Behavioural belief:** a student's belief about consequences of particular mode of livelihood (employer or employee) behaviour. The concept is based on the subjective probability that the behaviour (employer or employee) will produce a given outcome.
- **Attitude toward behaviour:** a student's positive or negative evaluation of self-performance of the particular behaviour mode of livelihood (employer or employee). The concept is the degree to which performance of the behaviour is positively or negatively valued. It is determined by the total set of accessible behaviour beliefs linking the behaviour mode of livelihood (employer or employee) to various outcomes and other attributes.

In the TPB, attitude refers to a person's weighted evaluation (negative or positive or

neutral) of the intended behaviour considered as favourable or unfavourable. Attitudes consist of an individual's beliefs about the outcomes of performing a given behaviour. These are weighted by the individual's evaluations of those outcomes (Ajzen, 1991; Fishbein and Ajzen, 1975). Attitudes are made up of the beliefs that a person accumulates over a lifetime. Some beliefs are formed from direct experience, some are from outside information and others are inferred or self-generated. These beliefs are called salient beliefs and they are said to be the immediate antecedents of a person's attitude (Fishbein, 1980). An attitude, then, is a person's salient belief about whether the outcome of his action will be positive or negative. If the person has positive salient beliefs about the outcome of his behaviour then is said to have a positive attitude about the behaviour. In addition, vice-versa, if the person has a negative salient beliefs about the outcome of his behaviour is said to have a negative attitude. The beliefs are rated for the probability that engaging in the behaviour will produce the believed outcome. This is called the belief strength.

Normative beliefs and subjective norms represented by light blue in the model and these are comprised of:

- **Normative belief:** a student's perception of social normative pressures (from parents, or relevant others' like lecturers beliefs that he or she should or should not perform such behaviour adopting the mode of livelihood (employer or employee).
- **Subjective norm:** a student's perception about the particular behaviour in form of mode of livelihood (employer or employee), which is influenced by the judgment of significant others (e.g., parents, or relevant others' like lecturers).

In the TBP, subjective norm refers to the judgement a person makes due to perceived social pressure to perform or not perform the behaviour (Fishbein and Ajzen, 1975). It is determined by an individual's behavioural normative beliefs about whether important referent individuals approve or disapprove of them performing the

behaviour, mediated by that individual's motivation to comply with those specific referents (Fishbein and Ajzen, 1975). Subjective norms about the behaviour are a person's own weighted estimate of the social pressure (the beliefs of people) against one's position to perform or not perform a targeted behaviour and the individual's motivation to comply with such beliefs. They are in essence, perceptions about how family and friends will perceive the outcome of the behaviour (normative belief) and the degree to which this influences whether the behaviour is carried out (motivation to comply). These two factors are multiplied to give the subjective norm. It is important to note that subjective norms are formed only in relation to the opinions of persons considered significant or important.

Control beliefs and perceived behaviour control represented by orange in the model and these are comprised of:

- **Perceived behavioural control:** a student's perceived ease or difficulty of performing the particular behaviour (Ajzen, 1991) in form of mode of livelihood (employer or employee). It is assumed that perceived behaviour control is determined by the total set of accessible control beliefs.

Recognizing that perceived ability to perform a particular behaviour, or achieve a certain goal may influence whether the behaviour actually occurs. Ajzen (1991) developed the TPB, which adds this self-efficacy component to the TRA, called perceived behaviour control. When perceived and actual controls are high, the intention should relate directly to outcome.

Perceived behavioural control of the behaviour) therefore is the extent to which a person feels able to enact the behaviour based on a consideration of internal control factors (e.g. skills, abilities, information) and external control factors (e.g. obstacles, or opportunities) – both of which are related to past behaviour. Perceived behavioural control has two aspects: how much a person has control over the

behaviour (e.g. low control over determining the cost of a tuberculosis service); and how confident a person feels about being able to perform or not perform the behaviour (e.g. not sufficiently skilled to treat oneself (Ajzen, 1998). The importance of actual behavioural control is self-evident: The resources and opportunities available to a person must to some extent dictate the likelihood of behavioural achievement. Of greater psychological interest than actual control, however, is the perception of behavioural control and its impact on intentions and actions. Perceived behavioural control plays an important part in the theory of planned behaviour. In fact, the theory of planned behaviour differs from the theory of reasoned action in its addition of perceived behavioural control. This is especially true when the behaviour requires certain abilities or resources. If a person lacks necessary skills or resources to complete a task, they may be unable to perform an action even if they intend to.

- **Control beliefs:** a student's beliefs about the presence of factors that may facilitate or impede performance of the behaviour (Ajzen, 2001) in form of mode of livelihood (employer or employee). The concept of perceived behaviour control is conceptually related to self-efficacy.

Behaviour intention represented by brown in the model and these are comprised of:

- **Behaviour intention or intention:** an indication of a student's readiness to perform a given behaviour in form of a mode of livelihood (employer or employee). It is assumed to be an immediate antecedent of behaviour (Ajzen, 2002b). It is based on attitude toward the behaviour, subjective norm, and perceived behaviour control, with each predictor weighted for its importance in relation to the behaviour and population of interest. Intentions which are the fulcrum of the theory have been defined as: the amount of effort one is willing to exert to attain a goal (Ajzen, 1991), "behaviour plans that...enable attainment of a behaviour goal" (Ajzen, 1996).

Intentions in the TPB are assumed to capture the motivational factors that influence a

behaviour; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour. As a rule, the stronger the intention to engage in a behaviour, the more likely should be its performance. This intention is made up of the attitudes and subjective norms previously discussed. Fishbein proposed that variables not included in the model could affect intention and, consequently, behaviour. However, these variables must significantly affect the attitude or normative belief component and their weights. These factors include demographic variables and personality traits.

- **Behaviour:** a student's observable response in a given situation with respect to a given target. Ajzen said a behaviour is a function of compatible intentions and perceptions of behavioural control in that perceived behavioural control is expected to moderate the effect of intention on behaviour, such that a favourable intention produces the behaviour only when behavioural control is strong.

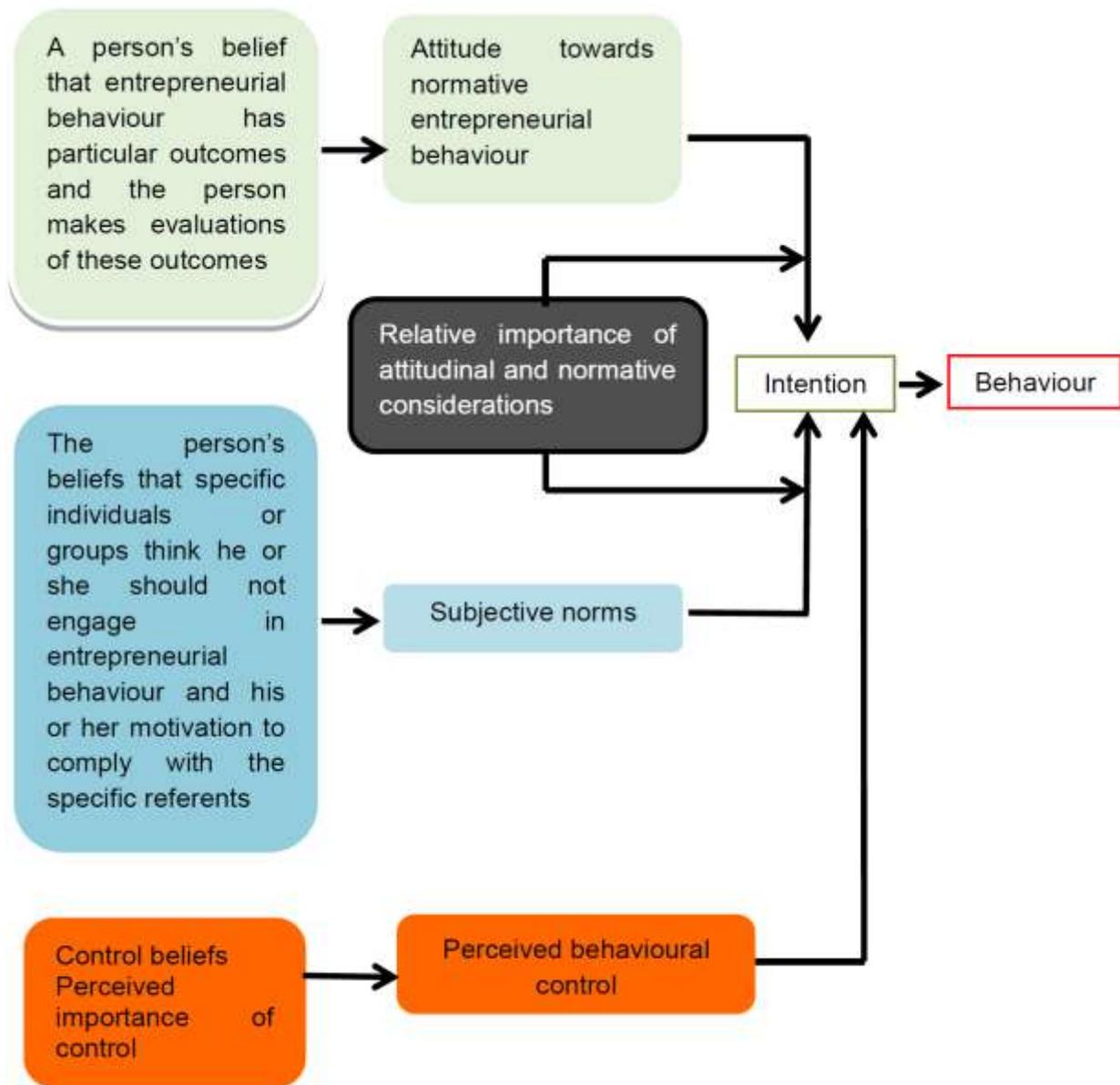


Figure: 1. Theory of Reasoned Action and Theory of Planned Behaviour

The theory of planned behaviour has been used in eliciting student’s intentions. However the theory has demonstrated weaknesses in that it does not consider critical factors like personality attributes (Crant, 1996) identification of opportunities (Krueger, 2000) threats in the environment (Grundsten 2004; Lowe, 2002), risk taking propensity (Johnson, 1990; Lee and Tsang, 2001) entrepreneurship education (Henry et al., 2005; Oosterbeek et al., 2010). There is also an extended range of cultural, social, economic, political, demographical and technological factors which tend to surround a person and these are not considered in the TPB. These limitations became the cornerstone for

other models of entrepreneurial intention such as Shapero's Model of the 'Entrepreneurial Event' (SEE) and Lüthje and Frankian structural model of entrepreneurial intention model.

Criticisms of Theory of Planned Behaviour

There has been no shortage of criticism towards the TPB. The balance between parsimony and validity has been questioned. TPB is a theory of all volitional behaviour based on only four explanatory concepts which has not been sufficiently elaborated. The theory is weak in that it has an exclusive focus on rational reasoning and as such, it excludes unconscious influences on behaviour (Sheeran et al., 2013) and the role of emotions beyond anticipated affective outcomes (Conner et al., 2013). Moreover, the static explanatory nature of the TPB does not help to understand the evidenced effects of behaviour on cognitions and future behaviour (Sutton, 1994; 2002; McEachan et al., 2011).

The hypotheses derived from the model are also questionable and have been noted to be open to empirical falsification, or whether they are essentially common-sense statements, which cannot be falsified (Smedslund, 1978; Ogden, 2003). Indeed, findings under *ceteris paribus* conditions suggesting that individuals are more likely to engage in behaviours that they enjoy less, feel incapable of doing or do not intend to do seems implausible and would cast doubt on the data more than on the underlying theory. Ogden (2003) for instance found that authors of studies with results conflicting with TPB assumptions (e.g., null correlations between variables hypothesised to be highly related) rarely question the validity of the theory, but instead consider other explanations such as the operationalisation of their study measures.

The main problem with the TPB is not that it is not explaining sufficient variability in behaviour. The main problem is that some of the theory's propositions are patently false. In particular, the mediation assumptions in the TPB are in conflict with evidence. For example, beliefs are often found to predict behaviour over and above intentions (Araújo Soares et al. 2013; Conner et al., 2013). More critically, the bold sufficiency hypothesis assuming that all theory-external influences on behaviour are mediated through the TPB is

empirically and conceptually indefensible, and has been falsified. For example, there is consistent evidence that age, socio-economic status, physical health, mental health and features of the environment predict objectively measured physical activity when TPB predictors are controlled for (e.g., Sniehotta et al., 2013).

The theory suffers from limited predictive validity and the majority of variability in observed behaviour is not accounted for by measures of the TPB. In particular, the problem of 'inclined abstainers', individuals who form an intention and subsequently fail to act, has been a recognised limitation of the TPB that remains unaddressed by the theory (Orbell and Sheeran, 1998).

McClelland Achievement Theory

This is one of the most applied theories on entrepreneurship. According to its traditional definition, the need for achievement is the impetus that forces the person to struggle for success and perfection (McClelland, 1987; Sagie and Elizur, 1999). Individuals who have a strong need to achieve are among those who want to solve problems themselves, set targets and strive for these targets through their own efforts, demonstrate a higher performance in challenging tasks and are innovative in the sense of looking for new and better ways to improve their performance (Littunen, 2000; Utsch and Rauch, 2000). While Murray identified the need for achievement as a basic need that influences behaviour, McClelland first established the construct in the entrepreneurship literature by positing that a high need for achievement predisposes a young person to seek out an entrepreneurial position to attain more achievement satisfaction that could be derived from other types of positions (Entrialgo et al., 2000; Stewart et al., 1998; 2003). With numerous comparative studies conducted among entrepreneurs and non-entrepreneurs, it appears that the need for achievement has a more significant relation with entrepreneurship and personality than other characteristics mentioned in the literature (Hansemark, 1998; Littunen, 2000; Scott and Twomey, 1988).

Criticism of McClelland Achievement Theory

While other needs theories are more descriptive, Mcllelland offers a better mix of description

and prescription enabling organizations to proactively encourage beneficial corporate behaviour through both training programs and matching motivational needs with job situations. However, critics of McClelland's theory state that there are issues with the validity concerning the Thematic Apperception Test projection used to determine the level of individual needs (Redmond, 2009).

Davidsson Economic-Psychological Model

Davidsson (1995) proposed an economic-psychological model that combined aspects of previously used models and argued that the concept of conviction is the primary determinant of intention. Education in entrepreneurship is also believed to influence intention. His model is about influencing individuals' intentions to start a new business. Psychologists for instance have proven that inclinations are the good forecasters of any planned behaviour, mainly when the behaviour is exceptional, difficult to study, or includes irregular intervals (Krueger et al., 2000: 41). While new ventures are not established in a day, entrepreneurship could be observed as a sort of planned behaviour which could be influenced by personality factors (Crant, 1996).

Criticism of Davidsson Economic-Psychological Model

While the model considers inclinations to new ventures as the thrust in its assumptions, empirical research has showed that the founding of new firms is more common when people have access to financial capital (Blanchflower et al, 2001, Evans & Jovanovic, 1989; Holtz-Eakin et al, 1994) than inclinations to new ventures. By implication this theory suggests that people with financial capital are more able to acquire resources to effectively exploit entrepreneurial opportunities, and set up a firm to do so (Clausen, 2006). However, other studies contest this theory as it is demonstrated that most founders start new ventures without much capital, and that financial capital is not significantly related to the probability of being nascent entrepreneurs (Kim et al., 2003, Hurst & Lusardi, 2004, Davidson & Honing, 2003). This apparent confusion is due to the fact that the line of research connected to the theory of liquidity constraints generally aims to resolve whether a founder's access to capital is determined by the amount of capital employed to start a new venture Clausen (2006). In

his view, this does not necessarily rule out the possibility of starting a firm without much capital. Therefore, founders access to capital is an important predictor of new venture growth but not necessarily important for the founding of a new venture (Hurst & Lusardi, 2004).

Entrepreneurial Attitude Orientation

Robinson et al., (1991) argued that an entrepreneur's attitude was composed of more than one personality type and that demographic characteristics were at play. Robinson and colleagues conceived the Entrepreneurial Attitude Orientation scale. This is scale that measures attitude prediction through four different sub- scales (achievement, self-esteem, personal control, and innovation) and three types of reactions (affective, cognitive or conative). These researchers posit that attitudes to predict entrepreneurial intentions are a more profitable approach than using personality traits. They also argued that attitudes do change more easily and more often than personality traits. Attitudes can therefore also be changed deliberately to be, for instance, more favourable towards entrepreneurship. When conceiving this theory, Robinson et al. (1991) rendered a critique of theory of planned behaviour, claiming that the attitude model of entrepreneurship has ramifications for entrepreneurship education programmes. They argued that attitudes are subject to change and can be influenced by educators and practitioners (Souitaris et al., 2007).

The entrepreneurial attitude orientation (TEA) suffers from the same demerits that the TPB does in the domain of measuring attitudes.

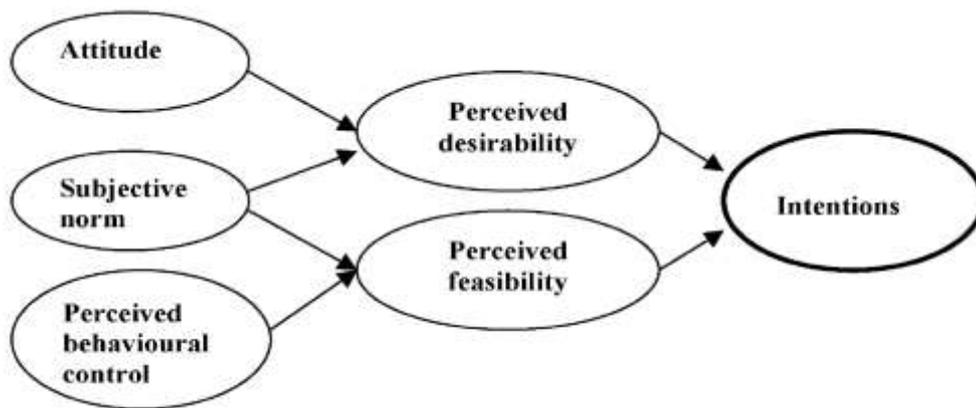
Krueger's Integrated Model

Krueger et al. (2000) is one most prominent researcher in this field who took an important initial step in consolidating intention theories by testing both the TPB and SEE. Krueger (1993) postulated that attitude in the TPB encompasses the notion of perceived desirability in the SEE model. He also postulated that subjective norm overlaps with the notion of desirability and feasibility, and that feasibility overlays with perceived

behavioural control. Bagozzi (1992) suggested that attitudes may first be translated into desires, which then develop into intentions to act, which direct action.

Armitage and Conner (2001) speculated that desires would inform intentions, upon which behavioural self-predictions are partly based. These authors have argued, however, that further work was needed to test the causal relationship between desires, intentions, and self-predictions in this consolidation of theories. Therefore, the following research model is proposed in Figure: 3.

Figure: 2. Proposed Integrated Model of Entrepreneurial Intentions



Source: Iakovleva and Kolvereid (2009)

The model in Figure: 2, proposes that intention is a function of the desirability-feasibility, which in turn is a function of attitudes, subjective norms and perceived behavioural control. Desirability-feasibility intermediates the association between the explanatory variables in TPB and entrepreneurial intentions. Mediation is presented if three conditions are met. First, the independent variable should be significantly associated with the dependent variable. Second, the independent variable should be significantly associated with the mediator. Third, the direct effect of the independent variable on the dependent variable should diminish when the mediation variable is entered into the regression.

Entrepreneurial Potential Model

This model is integrated from the two most relevant antecedent models, the Theory of Planned Behaviour (Ajzen, 1991) and the Entrepreneurial Event Model (EEM) (Shapero, 1982). The model is defined on three critical constructs, which are the perceived desirability (attitude and social norms), perceived feasibility (self-efficacy) and credibility (Guerrero et al., 2008). The potential to start a business is defined on three critical constructs: perceived desirability (attitudes and social norms), perceived feasibility (self-efficacy) and propensity to act (stable personal characteristics) (Krueger and Brazeal, 1994; Coduras et al., 2008). Krueger and Brazeal (1994) suggested that entrepreneurship education should improve the perceived feasibility for entrepreneurship by increasing the knowledge of students, building confidence and promoting self-efficacy. It should also improve the perceived desirability for entrepreneurship by showing students that this activity is highly regarded and socially acceptable and that it can be personally rewarding work (Souitaris et al., 2007).

Shapero's Model of the 'Entrepreneurial Event' (SEE)

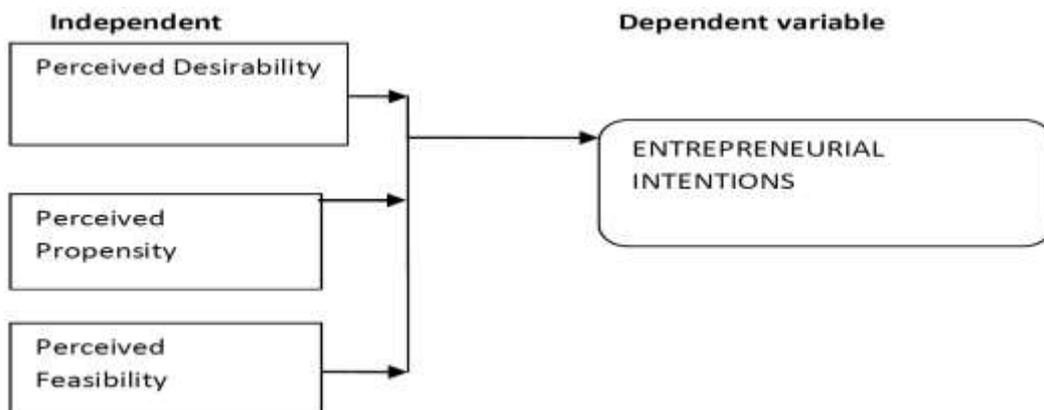
Shapero's entrepreneurial event model, developed by Shapero and Sokol, defines the interaction of cultural and social factors that can lead to a firm creation by influencing individual's perceptions (Shapero and Sokol, 1982). The model is implicitly an intention model, which is specific to the domain of entrepreneurship (Krueger et al., 2000). In this sense, the model considers entrepreneurship as an alternative or available option that takes place as a consequence of an external change (Miralles et al., 2012). In this model entrepreneurial intentions depend on three elements: (a) the perception of the desirability; (b) the propensity to act; and (c) the perception of feasibility.

In the SEE model, entrepreneurial intentions are resultant from discernments of desirability and feasibility, and a propensity to act upon available opportunities. The SEE model posits that the decision to initiate a new venture requires two things. First, founders of a new venture and in this case an enterprise should perceive that starting a new venture is rather "credible" (i.e., these entrepreneurs ought to have intentions toward setting up a

business). Starting a new venture must be a believable opportunity. Second, new-venture initiation requires some kind of precipitating (or "displacing") event. In turn, trustworthiness requires at least a threshold level of perceptions of probability and desirability plus some propensity to act upon the opportunity.

Figure: 3, graphically depicts Shapero's model as applied to intentions. Each arrow represents a testable hypothesis. Shapero suggests that the process of forming intentions may prove complex. Propensity to act is likely to also have indirect influences on relationships in the model, thus researchers ought to test for moderating effects by propensity to act. Shapero also suggests that intentions may depend on only a threshold level of feasibility and desirability perceptions, thus we may also want to attempt identification of threshold effects.

Figure: 3. Shapero’s Model of Entrepreneurial Intentions



As shown by Van Auken et al (2006) and Krueger et al. (2000)

Displacement is often negative, such as job loss or divorce, but it can easily be positive, such as getting an inheritance or winning the lottery. Displacement precipitates a change in behaviour where the decision maker seeks the best opportunity available from a set of alternatives (Katz, 1992). The choice of behaviour depends on the relative “credibility” of alternative behaviours (in this situation to this decision maker) plus some “propensity to act” (without which significant action may not be taken). “Credibility” requires a behaviour be seen as both desirable and feasible. Entrepreneurial events thus require the potential to start a business (credibility and propensity to act) to exist before the displacement and a propensity to act afterwards (Shapero, 1982).

As with TPB, exogenous influences do not directly affect intentions or behaviour. These exogenous influences operate through person-situation perceptions of desirability and feasibility. In a recent study perceived feasibility, perceived desirability, and the propensity to act explain well over half the variance in intentions toward entrepreneurship; feasibility perceptions explained the most variance (Krueger, 1993). Shapero offers evidence of how perceptions are critical in this process. Significant life events (job loss, migration, etc.) can precipitate sizable increases in entrepreneurial activity. The founders have not changed, only their perceptions of the “new” circumstances have. Their entrepreneurial potential clearly existed, but the potential required displacement to surface. Shapero also offers examples of company foundings where only subjective circumstances had changed.

Perceptions of desirability and feasibility are products of cultural and social environments and are argued to make an individual to determine which actions will be seriously considered and subsequently taken. Perception of desirability affects the entrepreneurial event through individual value systems and is dependent on the social system the individual is part of (family, peer groups, ethnic groups, educational and professional contexts).

Concerning perceived feasibility Shapero and Sokol (1982) refer to availability of financial support and to would-be partners. Would-be partners may pull a nascent entrepreneur into the act by providing funding, moral support, labour, a necessary skill and perhaps shared risk. This approach was tested empirically by Krueger et al (2000) and Peterman and Kennedy (2003).

Perceived Desirability and Perceived Feasibility

Shapero defined perceived desirability as the personal attractiveness of starting a business, including both intrapersonal and extra personal impacts. Perceived feasibility is the degree to which one feels personally capable of starting a business. Empirically, Shapero proposed a testable eight-item inventory of questions aimed at different aspects of perceived desirability and feasibility. Empirical measures of self-efficacy (antecedents of perceived feasibility) assess beliefs that one can personally execute a given behaviour. Bandura (1986) argues for global measures summing self-efficacy at critical competencies

as identified by experts, focus group, or a holdout sample.

Propensity to Act

Shapero conceptualized “propensity to act” as the personal disposition to act on one’s decisions, thus reflecting volitional aspects of intentions (“I will do it”). It is hard to envision well-formed intentions without some propensity to act. Conceptually, propensity to act on an opportunity depends on control perceptions: that is, the desire to gain control by taking action. Empirically, we must identify a measure closely linked to initiating and persisting at goal-directed behaviour under uncertainty and adversity.

Shapero suggested internal locus of control, although managers often score equally as internal as entrepreneurs do. Another well-established conceptualization of this phenomenon is “learned optimism.” This highly valid, reliable measure consistently predicts commitment to goal-directed behaviour in many settings (Seligman, 1990).

When the two models are compared, one sees that both TPB and SEE are largely homologous to one another. Both contain an element conceptually associated with perceived self-efficacy (perceived behavioural control in TPB; perceived feasibility in SEE). TPB’s other two attitude measures correspond to SEE’s perceived desirability.

Whereas the SEE model was developed specifically to explain the impact of intentions on venture creation, the TPB model was developed to explain individual behaviour in general, and was subsequently adapted by entrepreneurship scholars. Although these models are sometimes regarded as competing, they overlap to a large degree. According to van Gelderen et al. (2008), Shapero’s perceived desirability and perceived feasibility correspond to Ajzen’s attitudes and perceived behavioural control, respectively. So in both models intentions are explained by willingness and capability. Both models have consistently received empirical support and in a direct comparison both models provide satisfactory predictions. Effects for the PBC/feasibility component tend to be stronger than for the attitude/desirability component.

However, what these two models lack are perceived support’ factors and barriers. To account for these phenomena, the researcher proposed to deductively employ a

structural model to analyse the entrepreneurial intention of university students which is shown below. The model proposed by Krueger and his associates draws heavily on the work of Ajzen and Fishbein and their theory of planned behaviour as well as on the work of Shapero (1982) and his theory of the entrepreneurial event.

Krueger's structural model

The division between perceived support and perceived barriers, is central in Krueger's model and it originates from Shapero's model (Shapero and Sokol, 1982). Krueger (1993) assumes that the interaction between perceived support and barriers predict the intentions to become an entrepreneur. Whereas personality factors have an influence on attitudes towards entrepreneurship (Krueger and Brazeal, 1994; Crant, 1996) which later on shape the intention. Social norms have not always had a significant impact (Krueger et al., 2000). However, one also has to consider that social norms could be expected to vary across cultures, i.e., in some countries, social norms are more supportive of entrepreneurial activity than in others (McGrath and MacMillan, 1992; Davidsson and Wiklund, 1997; Krueger and Kickul, 2006).

The structural model has been successfully applied in the field of entrepreneurship when studying the significant roles of universities in the entrepreneurial intentions (e.g. Crant, 1996; Autio et al., 2001; Lüthje and Franke, 2003). An examination of figure 3 shows that a university by offering entrepreneurial education, would have 'perceived support' and barrier factors, which are part of the contextual factors when analysing the student's intention to being an entrepreneur.

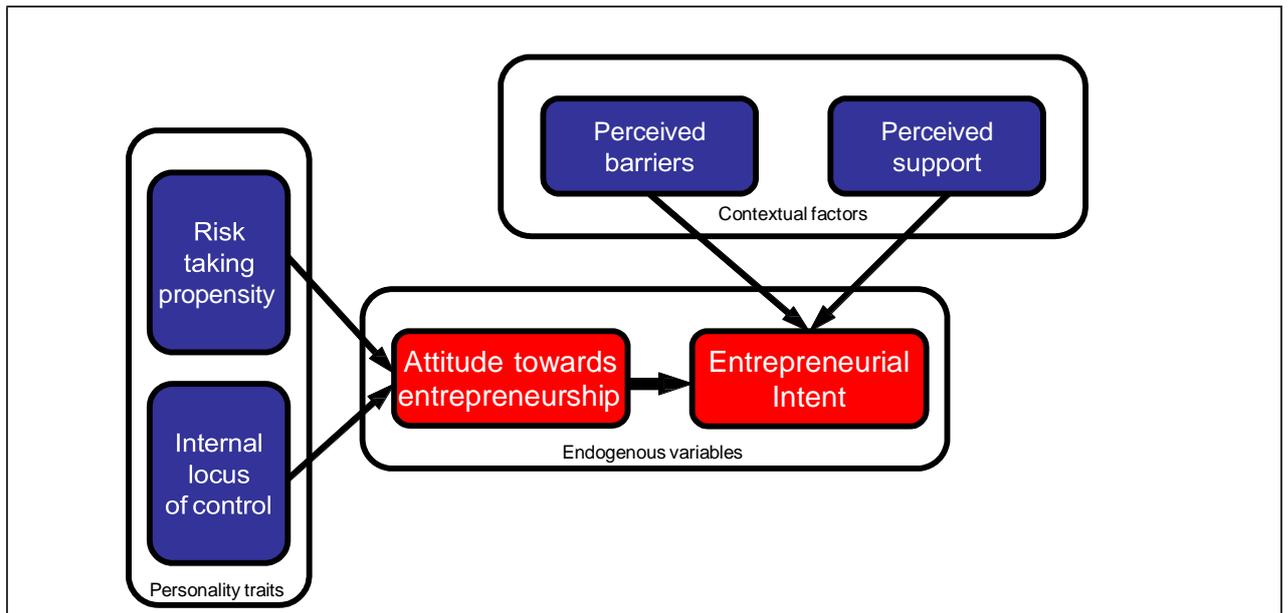


Figure: 4. The structural model of entrepreneurial intent from Lüthje and Franke (2003:138).

The two theoretical antecedents in Lüthje and Franke’s model should be sufficient to predict entrepreneurial intentions, but their relative importance can vary from one context to another.

Summary of Intention Theories and Models

The researcher concludes that no one theory is sufficient to explain reasons for intentions people have, but the theories could be used as a starting point to make an analysis of internal\motivation factors. All theories or models have a common starting point: determinants or factors that influence the behaviour must be established because they explain the behaviour. Therefore, we conclude that that each time we want to influence behaviour, the determinants of the specific behaviour must be analysed.

References

- Adler, M., and Ziglio, E., (1996). (eds). *Gazing into the Oracle. The Delphi Method & its Application to Social Policy*. London: Jessica Kingsley.
- Agboli, M & Ukaegbu, C. C. (2006). Business Environment & Entrepreneurial Activity in Nigeria: Implications for Industrial Development. *Journal of Modern African Studies*, 44, 1:1-30.
- Ajzen, I. & Fishbein, M. (1980). *Understanding Attitudes & Predicting Social Behaviour*. Englewood Cliffs, NJ: Prentice-Hall.
- Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behaviour. In J. Kuhl & J. Beckmann (Eds.). *Action-control: From cognition to behaviour* (pp. 11-39).
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour & Human Decision Processes*, 50:179-211.
- Ajzen, I., & Driver, B. L. (1991). Prediction of Leisure Participation from Behavioural, Normative, & Control Beliefs: An Application of the Theory of Planned Behaviour. *Leisure Sciences*, 13:185-204.
- Akhter, R., Sumi, F.R. (2014). Socio-Cultural Factors Influencing Entrepreneurial Activities: A Study on Bangladeshi. *IOSR Journal of Business & Management* .16 (9): 01-10.
- Alain, F., Benoit, G., & Clerc Narjisse, L. (2006). Effect & Counter-effect of
- Allen, E., & Seaman, C. A. (2007). Likert Scales and Data Analyses. *Quality Progress*. 40: 64-65.
- Awang, A., Ibrahim, I.I., Ayub, S.A (2014). Determinants of Entrepreneurial Career: Experience of Polytechnic Students. *Journal of Entrepreneurship, Business & Economics*. 2(1):21-40.
- Aykol, S., Gurbuz, G. (2008). Entrepreneurial Intentions of Young Educated Public in Turkey. *Journal of Global Strategic Management*, 4:47-55.
- Babbie, E.R. (2008). *The Basics of Social Research*, 4th edition, Belmont: Wadsworth.
- Bae, T.J., Qian, S., Miao, C., Fiet, J.O. (2014).The Relationship Between Entrepreneurship Education & Entrepreneurial Intentions: A Meta-Analytic Review. *Entrepreneurship Theory & Practice*. 38 (2):217-254.
- Bagozzi, R., Baumgartner, H., & Yi, Y. (1998) Goal-directed emotions. *Cognition and Emotion*, 12: 1—16.
- Bagozzi, R.P. (1992). The Self-Regulation of Attitudes, Intentions & Behaviour. *Social Psychology Quarterly*. 55: 178–204.

Bamber, D., Owens, J., Davies, J. & Suleman, A. (2002). Enabling the Emergent Entrepreneurial Organisation to Develop New Products. *International Journal of Entrepreneurial Behaviour & Research*. 8 (4):203-21.

Bandura, A. (1977). *Social Learning Theory*. New York, NY, General Learning Press.

Bandura, A. (1982). Self-Efficacy Mechanism in Human Agency. *American Psychologist*. 37: 122-147.

Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. New York: W.H. Freeman & Company.

Baron, R.A. (2004). The Cognitive Perspective: A Valuable Tool for Answering Entrepreneurship's Basic 'Why' Questions. *Journal of Business Venturing*, 19(2):221-239.

Baron, R.A., (1998). Cognitive Mechanisms in Entrepreneurship: Why & When Entrepreneurs Think Differently Than Other People, *Journal of Business Venturing*,13(4):275-294.

Barringer, B. R. (2008). *Entrepreneurship: Successfully Launching New Ventures*, Pearson Education India.

Baruch, Y. (2004). *Managing Careers*, Pearson, Harlow.

Basu, A. & Virick, M. (2008). *Assessing Entrepreneurial Intentions amongst Students: A Comparative Study*. Paper presented at 12th Annual Meeting of the National Collegiate Inventors & Innovators Alliance. Dallas, USA.

Baughn, C.C., Cao, J. S. R., Le, L. L. M., Lim, V. A., & Neupert, K.E. (2006). Normative, Social And Cognitive Predictors of Entrepreneurial Interest in China, Vietnam and the Philippines. *Journal of Developmental Entrepreneurship*, 11 (1), 57-77.

Bawuah, K., Buame., S. & Hinson, R. (2006). Reflections on Entrepreneurship Education in African Tertiary Institutions. *Acta Commercii*, 1-8.

Brewer, P. & Venaik, S. (2011). Individualism-collectivism in Hofstede & GLOBE. *Journal of International Business Studies*, 42(3):436-445.

Bridge, S., O'Neill, K. & Cromie, S. (1998). *Understanding Enterprise, Entrepreneurship, & Small Business*. Hampshire: McMillan Business.

Brockhaus R.H, Hills G.E, Klandt H.& Welsch P. (2001). *Entrepreneurship Education: A Global View*. Ashgate Publishing: Aldershot.

Buttar, H.M. (2015). Formation of Entrepreneurial Career Intentions: The Role of Sociocognitive Factors. *Journal of Employment Counselling*. 52(1):2-17.

Byabashaijia, W., Katono, I., Isabaliija, R. (2010). *The Impact of College Entrepreneurial Education on Entrepreneurial Attitudes & Intention to Start a Business in Uganda*. Paper submitted to entrepreneurship in Africa Conference, Syracuse, NY

Bygrave, W. D. (1989). The Entrepreneurship Paradigm: A Philosophical Look at its Research Methodologies. *Entrepreneurship Theory & Practice*. 14(1):7-26.

Chem, S. C., Jing, L. L., & Sung, M. (2012). University Students Personality Traits & Entrepreneurial Intention: Using Entrepreneurship & Entrepreneurial Attitude as Mediating Variable. *International Journal of Economic Research*, 3(3):76-82.

Chen, G.C., Crick, A. & Greene, P.G. (1998). Does Entrepreneurial Self-Efficacy Distinguish Entrepreneurs from Managers? *Journal of Business Venturing*. 13 (4): 295-317.

Coe R. (2002). *It's the Effect Size, Stupid: What "Effect Size" Is & Why it is*
Crant, M.J. (1996). The Proactive Personality Scale as a Predictor of Entrepreneurial Intentions. *Journal of Small Business Management*, 34:42-49.

Dana, L.P. (1992). Entrepreneurial Education in Europe. *Journal of Education for Business*. 68(2):74-78.

Davidsson, P. (1995). *Determinants of Entrepreneurial Intentions*. Paper prepared for the RENT IX Workshop, Piacenza, Italy, Nov. 23-24.

Drucker, P.F. (1985). *Innovation & Entrepreneurship*. London: William Heinmann.

Falck, O., Heblich, S., & Luedemann, E. (2012). Identity & Entrepreneurship: Do School Peers Shape Entrepreneurial Intentions? *Small Business Economics*, 39(1):39-59.

Falkäng, J., Alberti, F. (2000). The Assessment of Entrepreneurship Education. *Industry & Higher Education*. April:101-108.

Grundsten, H. (2004). *Entrepreneurial Intention & Entrepreneurial Environment: A Study of Technology-Based New Venture Creation*. Doctoral Dissertation. Helsinki University of Technology, Finland.

Hamidi, D.Y., Wennburg, K., & Berglund H., (2008). Creativity in Entrepreneurship Education. *Journal of Small Business & Entrepreneurship Development*. 15 (2): 304-320.

João, J. C.S.M.Daniela N. F., & Rodrigues, G.R.G. (2012). Entrepreneurship Education. *Education & Training*, 54(8/9):657-672.

Johannisson, B., Landstrom, H., & Rosenberg, J. (1998). University Training For

Entrepreneurship – An Action Frame of Reference. *European Journal of Engineering Education*, 23(4):477-496.

Johnson, B. R. (1990). Toward a Multidimensional Model of Entrepreneurship: The Case of Achievement & The Entrepreneur. *Entrepreneurship Theory & Practice* 14(3):39-54.

Kao, R.W.Y., Kao, K.R., & Kao, R.R. (2002). *Entrepreneurism For The Market Economy*. London: Imperial College Press.

Karimi, S., Biemans, H.J., Mahdei, K.N., Lans, T., Chizari, M., Mulder, M. (2015). *Testing The Relationship Between Personality Characteristics, Contextual Factors & Entrepreneurial Intentions in a Developing Country*.

Kavitha, R., Anantharaman, R. N., & Sharmila, J. (2008). Motivational Factors Affecting Entrepreneurial Decision: A Comparison Between Malaysian Women Entrepreneurs & Women Non-Entrepreneurs. *Communications of the IBIMA*. 2: 85–89.

Koellinger, P., Minniti, M., Schade, C., (2007). I Think I Can, I Think I Can: Overconfidence & Entrepreneurial Behaviour. *Journal of Economic Psychology*. 28(4): 502-527.

Koh, H.C. (1996). Testing Hypotheses of Entrepreneurial Characteristics. *Journal of Managerial Psychology*,11(3):12-25.

Krueger N.F., Reilly M. & Carsrud, A.L. (2000). Competing Models of Entrepreneurial Intentions. *Journal of Business Venturing*, 15:411-532.

Krueger, N.F. (1993). Impact of Prior Entrepreneurial Exposure on Perceptions of New Venture Feasibility & Desirability. *Entrepreneurship Theory & Practice*, 18(1):5-21.

Krueger, N.F. (2000). The Cognitive Infrastructure of Opportunity Emergence. *Entrepreneurship Theory & Practice*, 1:5-23.

Krueger, N.F. (2007). What Lies Beneath? The Experiential Essence of Entrepreneurial Thinking. *Entrepreneurship Theory & Practice*, 31(1):123-138.

Krueger, N.F., & Brazeal, D., (1994). Entrepreneurial Potential & Potential Entrepreneurs, *Entrepreneurship Theory & Practice*. 18(3):91-104.

Krueger, N.F., Liñán, F. & Nabi, G. (2013). Cultural Values & Entrepreneurship. *Entrepreneurship & Regional Development: An International Journal*, 25(9-10):703-707.

Kuratko, D. F. & R. M. Hodgetts (2004). *Entrepreneurship: Theory, Process & Practice*. Ohio: Thomson Learning.

Kuratko, D. F. (2005). The Emergence of Entrepreneurship Education: Development,

Trends & Challenges. *Entrepreneurship Theory & Practice*. 29(5):577-597.

Kuratko, D. F., & Hodgetts, R. M. (1995). *Entrepreneurship: A Contemporary Approach*. Ft. Worth, Texas: Dryden Press/Harcourt Brace & Co.

Lee, D., & Tsang, E., (2001). The Effects of Entrepreneurial Personality, Background & Network Activities on Venture Growth. *Journal of Management Studies*, 38(4):583-02.

Lee, L., Wong, P. K., Foo, M. D., & Leung, A. (2011). Entrepreneurial Intentions: The Influence of Organizational & Individual Factors. *Journal of Business Venturing*, 26(1):124-136.

Lee, S. M., Chang, D., & Lim, S. B. (2005). Impact of Entrepreneurship Education: A Comparative Study of the U.S. & Korea. *International Entrepreneurship & Management Journal*, 1(1):27-43.

Liñán, F. & Chen, Y. (2009). Development & Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions, *Entrepreneurship: Theory & Practice*, 33(3):593-617.

Liñán, F. (2004). Intention-Based Models of Entrepreneurship Education. *Piccola Impresa / Small Business*, 3:11-35.

Liñán, F. (2005). *Development & Validation of an Entrepreneurial Intention Questionnaire (EIQ)*. IntEnt05 Conference, Guildford (United Kingdom). 10-13.

Liñán, F and Fayolle, A. (2015). A Systematic Literature Review on Entrepreneurial Intentions: Citations, Thematic Analyses and the Research Agenda. *International Entrepreneurship and Management Journal* 11 (4), 907-933.

Linan, F., Rodriguez-Cohard, J. C. & Rueda-Cantuche, J. M. (2005). *Factors Affecting Entrepreneurial Intention Levels*. Paper presented at the 45th Congress of the European Regional Science Association, Amsterdam.

Liñán, F., Rodríguez-Cohard, J.C., & Rueda-Cantuche, J.M. (2010). Factors Affecting Entrepreneurial Intention Levels: A Role for Education. *International Entrepreneurship & Management Journal*, 7(2):195-218.

Manikutty, S., Anuradha, N.S., & Hansen, K. (2007). Does Culture Influence Learning Styles in Higher Education? *International Journal of Learning & Change*, 2(1):70-87.

Mohammad, I., Shaiful, A., K., Mahmud, O.H., Kamaruzaman, J., Kamsol, M., K.,

Mohd Fauzi, M.J., Yahaya, I., Tih, S. & Poon, J.M.L. (2007). *Entrepreneurship & Business Competitiveness*, Fakulti Perniagaan dan Ekonomi, UKM Bangi, Bangi, Selangor.

Nabi, G., Holden, R. (2008). Graduate entrepreneurship: Intentions, educations, education and training. *Education and Training*, 50(7), 545-551.

Paço, A., Ferreira, J., Raposo, M., Rodrigues, R. & Dinis, A. (2011a). Behaviours & Entrepreneurial Intention: Empirical Findings about Secondary Students. *Journal of International Entrepreneurship*, 9(1):20-38.

Paço, A., Ferreira, J., Raposo, M., Rodrigues, R. & Dinis, A. (2011b). Entrepreneurial Intention among Secondary Students: Findings from Portugal. *International Journal of Entrepreneurship & Small Business*, 13(1):92-106.

Ramayah, T., & Harun, Z. (2005). Entrepreneurial Intention among the Students of Universiti Sains Malaysia. *International Journal of Management & Entrepreneurship*, 1:8-20.

Rozihana, S.Z. (2009). Entrepreneurial Intention among Malaysian Undergraduates. *International Journal of Business & Management*. 4 (10): 54-60.

Samuel, Y.A. Ernest, K. & Awuah, J.B. (2013). An Assessment of Entrepreneurship Intention Among Sunyani Polytechnic Marketing Students. *International Review of Management and Marketing*. Vol. 3, No. 1, 2013, pp.37-49

Schlaegel, C., & Koenig, M. (2014). Determinants of Entrepreneurial Intent: A Meta-Analytic Test & Integration of Competing Models. *Entrepreneurship Theory & Practice Special Issue: Evidence-Based Entrepreneurship*, 38(2):291-332.

Shariff, A.M., Hasan, N.F.H.N., Mohamad, Z., & Jusoff, K. (2010). The Relationship Between Active Teaching & Learning with Graduate's Entrepreneurial Intention & Interest. *Interdisciplinary Journal of Contemporary Research in Business*, 2(1):283-294.

Tan, J. (2002). Culture, Nations, & Entrepreneurial Strategic Orientations: Implications For An Emerging Economy, *Entrepreneurship Theory & Practice*, 26(4):95-111.

Tubbs, M.E., & Ekeberg, S.E. (1991). The Role of Intentions In Work Motivation: Implications For Goal-Setting Theory & Research. *Academy of Management Review*. 14:361-384.

Veciana, J. M., Aponte M., & Urbano, D. (2005). University Students' Attitudes Towards Entrepreneurship: A Two Countries Comparison. *International Entrepreneurship & Management Journal*, 1:165-182.

Wei-Loon K., Sa'aria, J.R., Majid, I.A. & Ismail, K. (2012). *Determinants of Entrepreneurial Intention among Millennial Generation*. *Asia Pacific Business Innovation & Technology Management Society*, 40:197-208.

Wiklund, J. & Shepherd, D. (2005). Entrepreneurial Orientation & Small Business Performance Intention among Millennial Generation. Asia Pacific Business Innovation & Technology: A Configurational Approach. *Journal of Business Venturing*, 2:71-91.

Zain, Z.M., Akram, A.M., Ghani, E.K. (2010). Entrepreneurial Intention among Malaysian Business Students. *Canadian Social Science*, 6(3). 34-44.

Zampetakis, L.A., & Moustakis, V. (2006). Linking Creativity with Entrepreneurial Intentions. A Structural Approach. *The International Entrepreneurship & Management Journal*, 2(3). 413- 428.

Zhao, H., Seibert, S.E., Lumpkin, G.T. (2010). The Relationship of Personality to Entrepreneurial Intentions & Performance: A Meta-Analytic Review. *Journal of Management*, 36(2):381-404.