



Effects of Emotions on the Entrepreneurial Attitudes, Self-efficacy and Intentions of University Students

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Abstract

Entrepreneurship has been considered a solution to the unemployment challenges in many economies in the world. Earlier models for predicting entrepreneurial intentions (EI) focused on environmental factors that influence the decision of an individual to start a new business, but overlooked the role played by background such as emotions. To fill this void, we examined how emotions of students would influence their attitudes, self-efficacy and EI. Data collected from 211 university students were analysed using a step-wise regression and PROCESS macro-based on SPSS. Smart PLS software was used to construct a path analysis model. The results revealed that activated unpleasant emotion (AUE) negatively and significantly influenced students' attitudes ($\beta = 0.41$, $p \leq 0.01$) and self-efficacy ($\beta = 0.36$, $p \leq 0.01$), both of which significantly influenced their EIs. The relationship between the AUE and EI were significantly mediated by both attitude and self-efficacy. The results from correlational analysis showed that the relationship between subjective norm (SN) and EI was not significant. The results of path analysis showed that AUE was negatively related to both attitude ($\beta = -0.217$, $p \leq 0.01$) and self-efficacy ($\beta = -0.191$, $p \leq 0.01$). The practical implication of these findings is that, advocates of entrepreneurship initiatives should critically consider regulating the emotions of students to ensure they have a positive influence on the attitudes and self-efficacy of students' entrepreneurship initiatives. By incorporating emotions in the prediction of EI, the study also extend the power of the TPB model as a predictor of EI.

Key words: Activated unpleasant emotion, entrepreneurial intention, Deactivated unpleasant emotion, self-efficacy

Introduction

The role of entrepreneurship in social and economic development attracts attention from scholars and policymakers. Literature suggests that entrepreneurship is the main source of economic growth and flexibility, job creation, innovation, wealth creation and personal development (Mortana et al., 2014; Zampetakis et al., 2017). Despite this consensus, what remains a grey area is what background factors and contexts stimulate the pursuit of entrepreneurial endeavours by young people and hence the persistence of controversy around this subject (Noorkartina et al., 2015; Usman & Yennita, 2019).



Despite the aforementioned controversy, researchers affirm that intentions are the single best predictor of planned behaviour, including entrepreneurship (Sušanj, 2015; Lee-Ross, 2017; Mwiya et al., 2017; Zampetakis et al., 2017). To predict these intentions, two of the classical entrepreneurial intentions (EI) models, namely Shapero and Sokol's (1982) Model of Entrepreneurial Event (SEE), and Ajzen's (1991) Theory of Planned Behaviour (TPB) have traditionally been used. The central thesis of the TPB model is that human behaviour is not a vicarious activity but rather a deliberate and rational activity which is pre-planned. Closely aligned to the TPB, the Model of Entrepreneurial Event gives preponderance to potential as a precursor to the propensity to act. While the TPB was reported to be a more powerful predictor (58%) of EI in the South African context than the Model of Entrepreneurial Event (38%) (Davids, 2017), these theories are considered to be limited in terms of excluding background factors like emotions. As such, there have been calls to include other perspectives to reinforce their predictive and explanatory power regarding EI. For instance, Fayolle and Liñán (2014) argue that 'assessing the role and the importance of mental prototypes, cognitive scripts, mental schemas, and maps may shed more light on the formation of EI and the process leading from EI to behaviour' (p. 664). We argue that the role of emotions as a psychological construct, are neither captured nor sufficiently dealt with in the TPB and in the Model of Entrepreneurial Event, despite their prominence and their pre-occupation with psychological determinant of EIs.

Although many researchers have focused their attention on the relationship between emotions and entrepreneurship, there has been little effort to assess how emotions affect the EI of students (Mortana et al., 2014). Yet, both positive and negative emotions have potential to fuel EI of students even though the direction of such instigation remains a contested area of research (Noorkartina et al., 2015). For instance, some studies have affirmed that emotional competences and social emotional competences have positive impact on the EI of nascent entrepreneurs (Fanqi, Qian, Muqiang & Xinrui, 2017). Other studies have painted a complex picture characterised by mixed results. Grichnik, Smeja and Welpé (2010) contend that, while positive emotions positively affect opportunity evaluation of students, they may have a negative influence on their opportunity exploitation. Liang, Lee and Liang (2016) reported that a surge in positive emotion reduced the EI of students exhibiting high negative emotion and raised EI of students displaying low negative emotion. Yet other studies have contested this ambivalent posture and depicted a negative correlation between emotions and EI (Grichnik, et al., 2010; Mortan et al., 2014; Liang & Liang, 2015).

We postulate that the failure to clear this intellectual controversy could be a consequence of a failure to address the emotion-EI relations in collaboration with other adjacent concepts such as self-efficacy and entrepreneurship attitudes that have been reported to shape the EI of students and ultimately, their entrepreneurship behaviour. This is notwithstanding self-efficacy (McGee et al., 2009; Naushad & Malik, 2018) and attitudes (Tshikovhi & Shambare, 2015; Noorkartina et al., 2015) being considered critical antecedents of EI and entrepreneurial behaviour. Consistent with these observations, the current study sought to establish the influence of emotions on attitudes towards entrepreneurship and perceived self-efficacy, and on the EI of university students facing a potential career dilemma. This postulation obtains support despite our concession about the contribution of the social environment to cognitive processing and entrepreneurial opportunity evaluation and exploitation. For instance, Busenitz and Lau's (1996) acknowledge the role of social context in shaping individual cognition and personal variables in ways that demonstrate the complexity of the entrepreneurial environment that entrepreneurs operate in.

Overall, it can be contended that, integrating emotions to cognitive models responds to the call for researchers to conduct rigorous research on 'feelings and thinking' (Mitchell et al., 2007; Grichnika et al., 2010; Zampetakis et al., 2017). The relevance of emotions on students' entrepreneurship should be more pronounced in developing countries and emerging economies, where the volatility and



hostility of socio-economic and political environments, trigger considerable uncertainty to nascent entrepreneurs (Baron, 2008; Foo, 2011). Such uncertainty would impose high cognitive load on students' entrepreneurship endeavours, which may trigger their negative emotions and undermine their entrepreneurial decision making. A study conducted by Liang and Liang (2016) on effects of psychological factors in shaping entrepreneurship intentions in Taiwan revealed that an increase in cognitive load also raised the EI of students exhibiting high intrinsic motivation but decreased the intention of students exhibiting low intrinsic motivation. This is indicative of the way complexity in business information could increase the enterprising attitude of highly motivated students but simultaneously undermine the conscientious attitudes of lowly motivated students. Their study also highlighted that a surge in positive emotion reduced the EI of students who displayed high negative emotion and increased the EI of those exhibiting low negative emotion. In view of the complexity of emotion-EI relationship, we therefore investigate the possible mediation of the emotion-EI relationships by personal (i.e. entrepreneurial self-efficacy and entrepreneurial attitudes) factors among the university students.

Background to the study

Lesotho is one of the developing economies in Southern Africa faced with an unemployment rate of over 74 percent among the youths aged between 25 to 29 years (Damane & Sekantsi, 2018). The high rate of unemployment among the youths has been a contentious issue to government in view of the thousands of degreed young people who graduate from the country's three universities and other institutions of higher learning every year. Damane and Sekantsi (2018) suggest that the high rate of youth unemployment in Lesotho has been due to, inter alia, undiversified domestic markets and a relatively a small private sector which resulted in large proportions of Lesotho's labour force seeking employment in the neighbouring South Africa. Government is the main employer in the formal sector while the largest informal employer is mainly the less developed textile industry (Damane & Sekantsi, 2018). This puts the public sector under great pressure to absorb most of the youth who graduate from the country's institutions of higher learning every year. Imparting entrepreneurship skills, competences, orientation and culture among the youths is seen as the only proactive way the government of Lesotho can address the challenges of youth unemployment among the students from universities (Damane & Sekantsi,2018).

Encouraging entrepreneurship is one way by which unemployment levels among the youths can be reduced. Consequently, in an attempt to alleviate the challenges of unemployment among the youths, the government of Lesotho, through the country's commercial banks, established a special purpose vehicle to facilitate the training of small and medium enterprises (SMEs) owners and the financing of new business ventures initiated by the youths (Damane & Sekantsi, 2018). However, initiatives to start own business among the youths, is a psychological process which can be affected by the background factors like emotions and an individual's perception of a country's poverty level, social inequality, political instability and economic stagnation (Bureau of Statistics, 2017). Such a situation gives rise to negative affect for nascent entrepreneurs due to risk and fear of failure. Therefore, the need to consider the role of emotions in explaining EI among students from a country such as Lesotho cannot be taken for granted.

The next section discusses briefly the concept of emotions, followed by brief summary of the TPB model. These sections are followed by brief literature reviews on the relationships between emotions and attitudes toward entrepreneurship; emotions and entrepreneurial self-efficacy; and emotions and EI, respectively.

Review of Literature and development of hypothesis

The concept of emotion

Emotions and moods form a broader concept of affect (Hayton & Cholakova, 2012; Warr et al. 2014). Emotions have a specific cause and are more intense but less enduring than moods. An entrepreneur may become sad because of an unpleasant event or temporary occurrence that affects emotions, like failure to get a bank loan, but if the same entrepreneur is always sad for no apparent reason; such affective state becomes her mood. Literature also differentiates between state emotion and trait emotion. While state emotion is often a specific event-generated and short-lived feeling caused by external events, trait emotion is a rather stable individual tendency to have particular feelings across many situations (Baron, 2008). For instance, being sad after failing to secure a bank loan signifies state emotion; but being sad under all circumstances denotes trait emotion. Since the above concepts produce more or less similar results on outcomes (Baron, 2008; Hayton & Cholakova, 2012), detailed differences between these constructs will not be pursued further in this paper. Emotions can be pleasant or unpleasant (i.e. positive or negative respectively). Positive emotions and negative emotions are considered to fall on two independent dimensions. Even though they have a moderate negative correlation, low scores on positive (pleasant) emotions do not automatically lead to negative (unpleasant) emotions (Hayton & Cholakova, 2012; Warr et al. 2014). A complete view of emotions also considers their arousal, which can be intense (activated) or less intense (deactivated) (Warr et al., 2014). These four dimensions (pleasant versus unpleasant, and activated versus deactivated) give rise to a four quadrant model of emotions (see Figure 1).



Figure 1: Emotion Circumplex Model. **Source:** Russell, (1980).

As illustrated on the diagram (Figure 1), activated pleasant emotion (APE) can be represented by enthusiasm, excitement, joy, inspiration etc. and activated unpleasant emotion (AUE) can be represented by anxiety, tension, worry, nervousness, etc. Similarly, deactivated pleasant emotion (DPE) can be represented by comfort, calm, relaxation, and contentment. Deactivated unpleasant emotion (DUE) can be represented by depression, boredom, despondency, hopelessness, etc. We adopted this four-quadrant emotion circumplex model because it provides a better specificity of analysis and precision of prediction (Warr et al., 2014). From an entrepreneurial perspective, we postulated that activated pleasant emotions are bound to stimulate positive EIs, through increased

search for entrepreneurial opportunities, possibly leading to their exploitation. On the contrary, activated unpleasant emotion stirs negative EIs by undermining the search for and appropriate evaluation of entrepreneurship opportunities.

Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB) model assumes that people are rational in making behavioural decisions and that not all behaviours are entirely within the control of the beholder (Ajzen, 1991). The other central theme of the TPB is that behavioural intention (BI) is the most immediate single predictor of actual behaviour. In the TPB, BI is determined by attitudes toward behaviour, subjective norms (SN) or social pressure of significant others and perceived behavioural control/constraints (PBC). PBC has joint influence on actual behaviour with BI (Ajzen, 1991). The three antecedents of BIs in the TPB model (attitudes, SN and PBC) are related to one another (Ajzen, 1991).

Entrepreneurship attitude describes the degree to which a person has favourable or unfavourable appraisal of entrepreneurship. PBC parallels self-efficacy or the self-evaluation of an individual's capacity/ability to perform the behaviour in question (Tkachev & Kolvereid, 1999; Gird & Bagraim, 2008) and BI is equivalent to EI. Although it may be contested, literature suggests that much of what is considered as 'entrepreneurial' activity, is intentionally planned behavior (Molaei et al., 2015; Mueller et al., 2014; Buttar, 2015; Zampetakis, et al., 2017; Usman & Yennita, 2019). According to the TPB (see Figure 2), EI is a proximal determinant of entrepreneurial behaviour (Ajzen, 1991; Kolvereid, 1996; Autio et al., 2001). Farrukh et al. (2018) concur with Ridha and Wahyu (2017) that EI refers to the self-conviction of an individual to start a new business venture, which continuously inspires and pushes him/her to accomplish it in the future. Similarly, Kautonen, Van Gelderen and Tornikoski (2013) consider EI as the first step toward starting a new business venture. EI is itself influenced by attitude towards entrepreneurship, subjective norm (SN), and perceived behavioural constraints (PBC) or entrepreneurial self-efficacy (Yang, 2013). Based on prior studies on entrepreneurship behaviour, (Yang, 2013; Buttar, 2015; Usman & Yennita, 2019), we expected that EI and entrepreneurial self-efficacy would significantly influence EI (see figure 2).

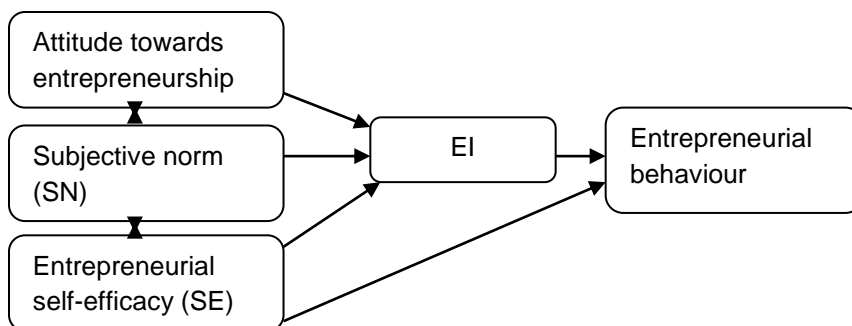


Figure 2: The TPB model **Source:** Autio et al. (2001)

Since TPB remains one of the most frequently used theories to predict EI (Autio et al., 2001; Gird & Bagraim, 2008; Yang, 2013; Schlaegel & Koenig, 2014), it provides a good platform to extend our knowledge on how EIs are formed.

There are several prospects for further development in this regard. For instance, Mitchell et al. (2007) have advocated for the inclusion of situational factors in entrepreneurship research. These situational environmental factors include certainty of the entrepreneurial environment, hostility or dynamism of the national policy for the support of entrepreneurship and the entrepreneurship culture of nations and regions. However, these factors could not be tested in the study as they had been studied extensively



in recent years (Martins & Rialp 2012; Kurtulmus & Warner, 2015). Similarly, Fayolle and Liñán (2014) have proposed a nuanced approach incorporating deeper analysis of personal-level variables in EI formation; the relationship between entrepreneurial education and EI; the role of context and institutions in the configuration of EI; and the in-depth analysis of the link between EI and entrepreneurial behaviour. Other studies that have examined the intersection between personal psychological factors and EI (conviction, motivation, negative emotions, metaconviction) and personality factors (openness to experience, conscientiousness, extraversion) and EI (Farradina, Fadhliya & Azmansyah, 2018), fail to capture the role of emotions in shaping EI and entrepreneurial activity. This continual search for alternative explanations of EI and entrepreneurship behaviour suggests that the antecedents for the formation of EI remained under-explored and under-developed for a complete understanding of the construct.

In this paper we seek to explore the role of emotions on personal (entrepreneurial attitude, entrepreneurial self-efficacy) variables in the formation of EI of students. Compared to other behaviours, entrepreneurship is more emotion-laden (Baron, 2008; Fodor & Pinteaa, 2017) and therefore, it is worth exploring how emotions influence attitudes and self-efficacy.

Emotions and attitudes

The influence of emotions on attitudes is well-documented (Clare & Schnall, 2005). This relationship is supported by several theories. According to Approach-Avoidance Theory, pleasant emotions activate the Behavioural Approach System (BAS), which triggers positive attitudes and behaviours. On the contrary, unpleasant emotions, activate the Behavioural Inhibition System (BIS) that triggers negative attitudes and behaviours (Fodor & Pinteaa, 2017). Another popular theory that can be used to support emotion-attitude relationship is the Broaden-and-Build Theory (Frederickson, 2004). According to this theory, when people experience positive emotions, their thought-action repertoires are expanded, with subsequent expansion of attention scope, attitudes and behaviours. Conversely, when people experience negative emotions, their attention scope and perceptual fields narrow, and these may negatively affect their entrepreneurial attitude and behaviours (Baron, 2008). Mood-dependent retrieval mechanism suggests that current emotions serve to prime (elicit) similarly stored emotions (Baron, 2008). In other words, when would-be entrepreneurs experience positive emotions, positive memories may be recalled, and when they experience negative emotions, negative associations may similarly be recounted.

In a recent meta-analytic study, Fodor and Pinteaa (2017) established a positive relationship between positive emotions and entrepreneurial performance, and a negative relationship between negative emotions and entrepreneurial performance. However, the relationship between positive emotions and performance was not significant. Furthermore, the results of Elen et al.'s (2013) study on the influence of mood on the consumer's attitude-behavior consistency in online shopping, confirm that mood significantly affects the attitude-behavior consistency. In view of these inconsistent results, the need to incorporate other mediating variables becomes critical for a better understanding of the actual connection between emotions and EI.

An alternative view, which draws from the emotion-as-information phenomenon, holds that emotions store information about the world around us. While experiencing positive emotions may signal that things are going well, experiencing negative emotions may signal that things are not going well (Elen et al., 2013). While people with positive emotions may respond intuitively to entrepreneurial opportunities, those in negative moods may respond with a more deliberative judgment, thus reflecting more on their attitudes and preferences (Elen et al., 2013). Overall, we expected that positive emotions would affect attitudes positively, and negative emotions would reflect negatively on attitudes. Based on the above arguments, we hypothesize that:



H1: 1a) Positive emotions are positively related to attitudes, and 1b) negative emotions are negatively related to attitudes.

Emotions and self-efficacy

According to the Social Cognitive Theory, self-efficacy can be described as the perceived ability of an individual to have the control of executing a specific behaviour (Bandura, 1997; Krueger et al., 2000; Zampetakis et al., 2017). Literature suggests that the most important factor for a potential entrepreneur is how they judge themselves (self-appraisal) against their capability to start up a business. According to Bandura (1997), emotion arousal is one of the main sources of information that people use in judging their own capabilities (self-efficacy). Medrano et al. (2016) also note that the cognitive efficacy appraisal (self-efficacy judgment) of an entrepreneur basically depends on whether positive or negative emotions are aroused by the thought process of starting up a new business. This implies that if negative connotations (e.g. fear of financial loss, fear of handling failure, rejection of negative societal evaluations) are aroused, then a potential entrepreneur will judge her capabilities about starting a business negatively. On the contrary, if positive affect is generated (e.g. expectations of financial gain, increase in status, social mobility), then an individual entrepreneur is bound to have a positive assessment of their capacity to engage in entrepreneurial behaviour. Whereas positive emotional arousal is associated with increased self-efficacy in starting a business venture, negative emotions lower the self-efficacy judgments, thus creating a barrier to entrepreneurial action (Arenius & Minniti, 2005; Welpel et al., 2012). Viewed from that perspective, individuals are more likely to expect success when they are not beset by aversive emotional arousal than if they are tense and relatedly agitated.

The effects of emotion arousal on self-efficacy judgments have been studied in different fields. For example, Kavanagh and Bower (1985) represent some of the early researchers that found a positive relationship between positive mood and self-efficacy, and a negative relationship between negative mood and self-efficacy. Similarly, Medrano et al. (2016) found and concluded that the induction of positive and negative mood states increased and decreased the levels of academic self-efficacy in college students respectively. In the context of entrepreneurship, the results of Mortana et al. (2014) confirmed that emotional intelligence mediated the relationship between self-efficacy and EI. Despite the perceivably obvious assumption that positive emotions would influence self-efficacy positively and negative emotions will affect self-efficacy negatively (Welpel et al., 2012; Medrano et al., 2016), what remains unclear is whether the same relations would be obtained if the relationship was tested in the presence of other mediating variables such as entrepreneurship attitudes and subjective norms, hence this study.

Since TPB considers self-efficacy to contribute to the formation of EI (Boyd & Vozikis, 1994; Zhao et al., 2005; Nabi et al., 2018), and Bandura's (1997) social cognitive theory suggests that emotional arousal is a potent source of self-efficacy cognitions, we argue that, controlling for other variables, self-efficacy judgments of entrepreneurs might be activated by emotional arousal. Based on these arguments, we hypothesize that:

H2: 2a) Positive emotions are positively related to the self-efficacy judgments, and 2b) negative emotions are negatively related to the self-efficacy judgements of the potential entrepreneur.

Emotions and entrepreneurial intentions

Although emotions are generally considered to be an important factor in career decision-making processes (Ackerman & Beier, 2003), their examination in the context of EI is equally critical since



they precede one's appraisal of the likelihood of success in carrying out entrepreneurial tasks and activities. Because business creation is a planned behavior (Bird, 1988; Katz & Gartner, 1988), emotions offer a means to better explain and predict the cognitive process of EI.

As indicated in the above paragraphs, emotions have been hypothesised to precede attitude and self-efficacy. According to the TPB model, attitude and self-efficacy are proximal determinants of EI (Bird, 1988; Ajzen, 1991). Social norms are not expected to have any influence on attitude because they are not internally driven. Therefore, this implies that the relationship between emotions and EI is mediated by both attitude and self-efficacy. Based on these assertions, we hypothesize as follows:

H3: Both attitude towards entrepreneurship and self-efficacy mediate the relationship between emotions and entrepreneurial intentions.

Despite the above assertions, the actual contribution of mediating factors for entrepreneurship has remained, largely an undisclosed area in the literature (Rauch & Frese, 2007), hence the need to unpack these mediating factors in this study. In fact, Farrukh et al. (2018) bemoan the lack of studies that have integrated these mediating factors in some social cognitive framework such as the TPB model. Put differently, but consistent with Farrukh et al.'s (2018) thinking, we concede that TPB components have rarely been recognized as mediating factors in the unpacking of the EI relationship with personality attributes, under the domain of entrepreneurship in the Southern African context.

Young people and entrepreneurship

Many young people in developing countries have resorted to starting their own small businesses as an employment career (OCED, 2017). For example, the Reserve Bank of Zimbabwe (RBZ, 2013), state that youths have recognised that their involvement in business is an important vehicle to eradicate their challenges of unemployment. According to RBZ, about 18-35% of the SMEs in Zimbabwe were established by youths who have been pushed to entrepreneurship by lack of employment opportunities in the country. Against this background, many developing economies have established training schools for youths who want to acquire skills to start and manage their own business ventures. Whilst such government initiatives have addressed the capital and skills deficiency challenges for the youths, other challenges have emerged. Core among these challenges is the contribution of background factors like emotions on the EI of the youths.

Successful entrepreneurship requires some basic skills and competencies to run a business. Most of the middle aged people in Lesotho are not that literate. University students constitute the largest target group through which Lesotho can achieve its target of social transformation through entrepreneurship development. The European Commission (2009) argues that the extent to which a country's graduates start new business ventures may be an indicator or measure of the country's involvement in the development of entrepreneurship among the youths. Mwiya et al. (2017) also argue that students' intentions to start a new business ventures is important sign that a country is moving towards the alleviation of unemployment levels.

The role of emotions of the formations of EI among students cannot therefore be over emphasized. There is abundance of literature of prior studies on entrepreneurial motivation, attitude and intentions on students in developed countries (Mueller et al., 2014; Buttar, 2015; Lee-Ross, 2017; Nabi et al., 2018; Usman & Yennita, 2019) and their emergence in developing countries (Molaei et al., 2015; Mwiya et al., 2017; Noorkartina et al., 2015). The current study bridges the aforementioned gaps by developing a model for evaluating the impact of personality traits on EI drawing on TPB concepts and perspectives in the context of a developing country.

Conceptual framework

The conceptual framework for the study is shown in figure 3 below.

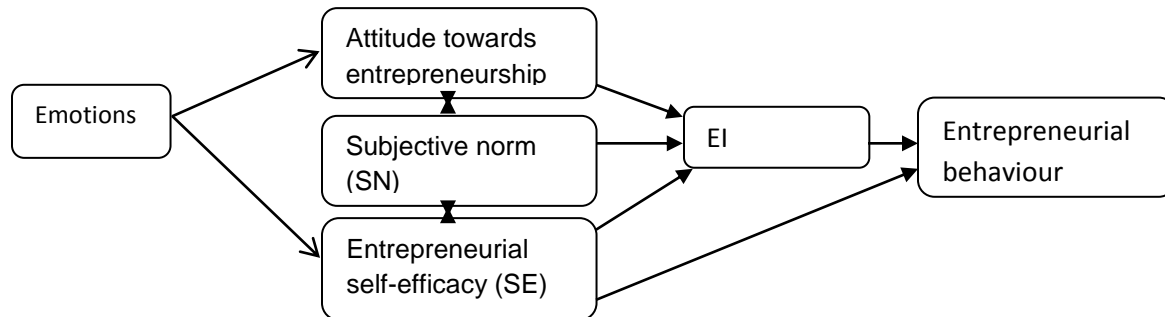


Figure 3: Conceptual framework for the study.

As illustrated in Figure 3, the authors postulate that emotions are antecedents of attitudes and self-efficacy. However, since subjective norms are externally induced but internally moderated, emotions may have an inconsequential effect on them. We contend that attitudes and self-efficacy mediate the interactions between emotions and EIs. Nevertheless, subjective norms also affect EI even though emotions do not necessarily affect them directly. We also submit that self-efficacy may directly affect entrepreneurship behaviour.

Research methodology

Data Collection procedures & Selection of participants

The target population consisted of university students facing an imminent dilemma of having to make a career choice in their life. We chose students doing business courses because venture creation could be a feasible career alternative in their future plans (Gird and Bagraim, 2008; Mwiya et al. 2017) in such a country as Lesotho. The participants were guaranteed confidentiality, and were further informed that participation or non-participation in the study would not affect their academic performance.

Structured questionnaires distributed to a convenient sample of 211 students (115 third year and 96 fourth year students) at the National University of Lesotho during lecture sessions, were left to be returned to the lecturer. Random sampling was not possible because of the difficulty to get authority to access the database of students from the university's administrators. Convenient sampling was deemed appropriate because of the accessibility of the targeted classes to the researchers. Convenient sampling has been used before to test entrepreneurial intentions among students (Mwiya et al., 2017). None of the participants were however pursuing entrepreneurship as a programme of study. The participants were students enrolled in business related courses (from B. Com degree programmes; Accounting, Marketing and Management) (84%); Information Systems (8%); and Education (8%).

At this university, students doing Education enrol for business courses if such courses happen to be their teaching specialisation. Of the 211 questionnaires distributed, 171 were returned, resulting in a return rate of 81 per cent. Of the participants, 66% of the respondents were females; 40% of the respondents reported that they had at least one parent who was self-employed. The age group distribution was; 18-20 years (2%); 20-24 years (67%); 25-30 years (27%); and above 30 years (4%).



Design of the Instrument

Measures

Demographic data: Control variables included gender, parents self-employed, age, programme of study and year of study.

For the Likert scale, unless stated otherwise, all variables were measured on a scale ranging from (1) strongly disagree to (5) strongly agree.

Entrepreneurial intentions: Three items adapted from the scale of Krueger et al. (2000) were used to measure entrepreneurial intentions. These items were: '*There is high probability that I will start my own business in the next 5 years*'; '*It is likely that I will start my own business in the foreseeable future*'; and '*It is likely that I will start a business on full-time basis*'. The Cronbach's alpha (internal reliability) of the scale was 0.72.

Attitude towards entrepreneurship: Three items adapted from the scale developed by Krueger et al., (2000) were used to measure this construct. *The items were 'entrepreneurship is a desirable career alternative for me personally'; and 'The idea of starting my own business sounds attractive to me'.* The third item '*I would rather start my own company than manage an existing business*', was deleted because it did not correlate well with other items. The Cronbach's alpha of the scale was moderate at 0.60.

Subjective norm: Two items adapted from the scale developed by Kolvereid (1996) were used to measure this construct. *The items were: 'the people who are important to me think I should start a business when I graduate', and 'My family expects me to start my own business.'* The Cronbach's alpha of the scale was 0.61.

Entrepreneurial self-efficacy: Four items often used to measure perceived behavioural control adapted from the scale of Autio et al. (2001) were used to measure this construct. *The items were: 'I am confident that I can do well in business if I wanted to; 'It would be easy for me to start my own business'; 'I have the skills and ability to be a successful business person'; and 'For me, being self-employed would be very easy'.* The Cronbach's alpha of the scale was 0.70.

Emotion: The multi-affect indicator scale suggested by Warr et al. (2014) was used to measure affect. Respondents were asked to rate their feelings in the past week on the following response options: 1 = never, 2 = a little of the time, 3 = some of the time, 4 = about half of the time, 5 = much of the time, 6 = a lot of the time, and 7= always. Activated unpleasant emotion (AUE) was indicated by anxious, nervous, tense and worried; Activated pleasant emotion (APE) by enthusiastic, excited, inspired, and joyful; Deactivated unpleasant emotion (DUE) by dejected, depressed, despondent, and hopeless; and Deactivated pleasant emotion (DPE) by at ease, calm, laid-back, and relaxed. Cronbach's alphas were 0.77 for AUE, 0.80 for APE, 0.78 for DUE, and 0.77 for DPE.

Analysis

Statistical Package for Social Sciences (SPSS) was used to analyse data. Zero-order correlations, regression analysis, and PROCESS Macro were used to test the hypotheses. The step-wise regression approach and the Smart PLS were deemed appropriate for testing mediation because of the exploratory in nature of the study.



Results

We first examined whether a four-quadrant interpretation of affect is valid by carrying out exploratory factor analysis (principal components, varimax rotation) of the items. The results are shown in Table 1.

Table 1: Exploratory Factor Analysis of the Emotion dimensions

	Factors			
	1	2	3	4
Excited	.838	-.198	.148	-.059
Joyful	.814	-.159	.224	.018
Enthusiastic	.767	.192	.172	-.149
Inspired	.642	-.076	.236	-.251
Nervous	-.072	.809	-.033	.106
Anxious	.107	.709	.061	.183
Worried	-.073	.654	-.244	.227
Tense	-.248	.654	-.150	.326
Depressed	-.183	.539	-.164	.472
Laid-back	.022	.086	.850	-.073
Relaxed	.242	-.129	.723	-.101
Calm	.273	-.140	.709	-.012
At ease	.216	-.141	.689	-.022
Despondent	-.054	.228	-.075	.820
Hopeless	-.234	.177	-.040	.720
Dejected	-.015	.244	-.021	.687
Percent of variance explained	32	16	9	6
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				

The Kaizer-Meyer-Olkin (KMO) test indicated an adequate figure of 0.83, which is greater than the acceptable one of 0.6. Similarly the Bartlett's test of sphericity was significant ($X^2 = 867.94$, $p \leq 0.01$), indicating that the responses were valid and suitable for questions asked.

As shown in table 1, factor analysis yielded four factors. Factor 1 represents activated pleasant emotions (APE); factor 2 represents activated unpleasant emotions (AUE); factor 3 represents deactivated pleasant emotions (DPE); and factor 4 represents deactivation unpleasant emotions (DUE). The total variance explained by the four factors was 63%. This further proves the reasonable utility and validity of the four-quadrant multi-affect indicator model.

The means, standard deviations and zero-order correlations between study variables are summarised in Table 2 below. As expected, EI had a positive and significant correlation with both attitude ($r = 0.44$; $p < 0.01$) and self-efficacy ($r = 0.47$; $p < 0.01$) while AUE had a negative significant correlations with both attitude ($r = -0.16$; $p = 0.05$) and self-efficacy ($r = -0.16$; $p = < 0.05$).



Table 2: Means, Standard Deviations and inter-correlations of variables

	Mean (SD)	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Gender	1.66 (0.48)	-										
2. Age	2.32 (0.58)	-0.18	-									
3. SEOP	1.60 (0.49)	0.22**	-0.03	-								
4. Intent	4.09 (0.72)	-0.01	-0.10	-0.21**	(0.72)							
5. Attitude	4.54 (0.59)	-0.03	0.07	-0.13	0.44**	(0.60)						
6. Norm	0.18 (0.75)	-0.02	-0.04	0.07	0.02	0.07	(0.61)					
7. Efficacy	3.84 (0.63)	0.02	-0.08	-0.09	0.47**	0.28**	0.21**	(0.70)				
8. AUE	3.33 (1.13)	0.14	-0.05	0.14	-0.17*	-0.16*	-0.00	-0.16*	(0.77)			
9. APE	4.81 (1.14)	0.03	-0.14	0.02	0.13	0.09	0.10	0.21**	-0.26**	(0.80)		
10. DUE	2.55 (1.08)	0.12	0.05	0.16*	-0.09	-0.07	-0.04	-0.10	0.63**	-0.35**	(0.78)	
11. DPE	3.87 (1.22)	-0.06	-0.10	-0.02	0.14	0.13	-0.09	0.05	-0.26**	0.46**	-0.25**	(0.77)

Note: * = significant at 0.05; ** = significant at 0.01. Norm = Social or Subjective Norm; Efficacy = Self-efficacy; AUE = activated unpleasant emotion; APE = activated pleasant emotion; DUE = deactivated unpleasant emotion; DPE = deactivated pleasant emotion; SEOP = self-employment of parents. Internal reliability, where applicable, is placed in parentheses.



We used a step-wise regression analysis to cater for the exploratory nature of the study. This helped separate the differential contributions of independent variables on dependent variables. The approach indicated the best, second best, third best and fourth predictor variable and so forth in each regression step. Predictor variables that did not contribute significantly in the explanation of dependent variables were eliminated by the system and only include those predictor variables that were significantly contributing to the explanations of the response variable continuously at all the regression steps. Attitude towards entrepreneurship, entrepreneurial self-efficacy, and EI were specified as dependent variables in models 1, 2 and 3 respectively. The results are shown in Table 3.



Table 3: Stepwise regression analysis results on attitudes, self-efficacy and intentions

	Attitudes towards entrepreneurship (attitude)				Perceived self-efficacy (SE)				Entrepreneurial intentions			
	β	SE	t	R ²	β	SE	t	R ²	β	SE	t	R ²
AUE	-0.19*	0.05	-2.19*	0.03	-0.19*	0.05	-2.29*	0.04	-	-	-	-
Attitude									0.41**	0.08	5.86**	0.43
Efficacy									0.36**	0.08	5.17**	
Removed variables	Gender, Age, APE, DPE, DUE, SEOP				Gender, Age, APE, DPE, DUE, SEOP				Gender, Age, APE, AUE, DPE, DUE, Social/subjective norm			

Notes: Figures relate to final model. * Significant at 0.05; **Significant at 0.01. AUE = activated unpleasant emotion; APE = activated pleasant emotion; DPE = deactivated pleasant emotion; DUE = deactivated unpleasant emotion; Efficacy = Perceived self-efficacy; SEOP = Self-employment of parents



In their order of importance, Table 3 suggests that attitude towards entrepreneurship ($\beta = 0.41, p \leq 0.01$) and entrepreneurial self-efficacy ($\beta = 0.36, p \leq 0.01$), and self-employment of parents ($\beta = -0.14, p \leq 0.05$) explained unique variance in EI. In other words, of the included control variables, only self-employment of parents had influence on EI, with those whose parents are self-employed ($M = 4.23$) more likely to express higher EI than those whose parents are not self-employed ($M = 3.98$), $t = 2.73, p \leq 0.05$. The variables that were finally removed were gender, age, APE, DPE, AUE, DUE, and social/subjective norm. Contrary to expectations, Table 3 indicates that after controlling for other variables, subjective norm did not explain the unique variance in entrepreneurial intentions in this study. Thus hypothesis 1 was partially supported.

Of all the control and emotion-related variables in this study, only AUE had significant effects on attitudes towards entrepreneurship and entrepreneurial self-efficacy ($\beta = -0.19, p \leq 0.05$ and $\beta = -0.19, p \leq 0.05$ respectively). Hypothesis 2 was also partially supported.

To examine if the indirect effects of AUE on EI via attitudes toward entrepreneurship and self-efficacy were significant, Hayes's (2013) PROCESS macro for SPSS was used. The sample was bootstrapped 5000 times at 95% Bias Corrected Confidence Intervals (95% BC CI). Table 4 presents the indirect estimates, standard errors, and confidence intervals.

Table 4: The results mediated effects of AUE on EI via attitudes and self-efficacy

	<i>Indirect effect</i>	<i>Standard error</i>	<i>z-value</i>	<i>p-value</i>	<i>Confidence interval (CI) at 95% confidence level</i>	
					<i>Lower</i>	<i>Upper</i>
Attitude	-0.06	0.04	-1.65	0.10	-0.1383	0.0076
Self-efficacy	-0.08	0.04	-1.92	0.05	-0.1589	-0.0020

As shown in Table 4, the results suggest that the indirect effect of AUE on EI via attitudes was not significant at 95% confidence level ($\beta = -0.06, z = -1.65, p \leq 0.10$). As shown, confidence intervals overlapped zero at 95% confidence level (CI = -0.14, 0.01). However, the indirect effect of AUE on EI via self-efficacy was significant at the required 95% confidence level ($\beta = -0.07, z = -1.92, p \leq 0.05$) as the confidence intervals did not overlap zero (CI = -0.14, 0.01). These results imply that hypothesis 3 was partially supported.

As indicated earlier, the current study was exploratory in nature. As a result, we used the smart PLS software recommended for exploratory studies (Hair et al., 2011) to construct a path analysis model as shown in figure 4.

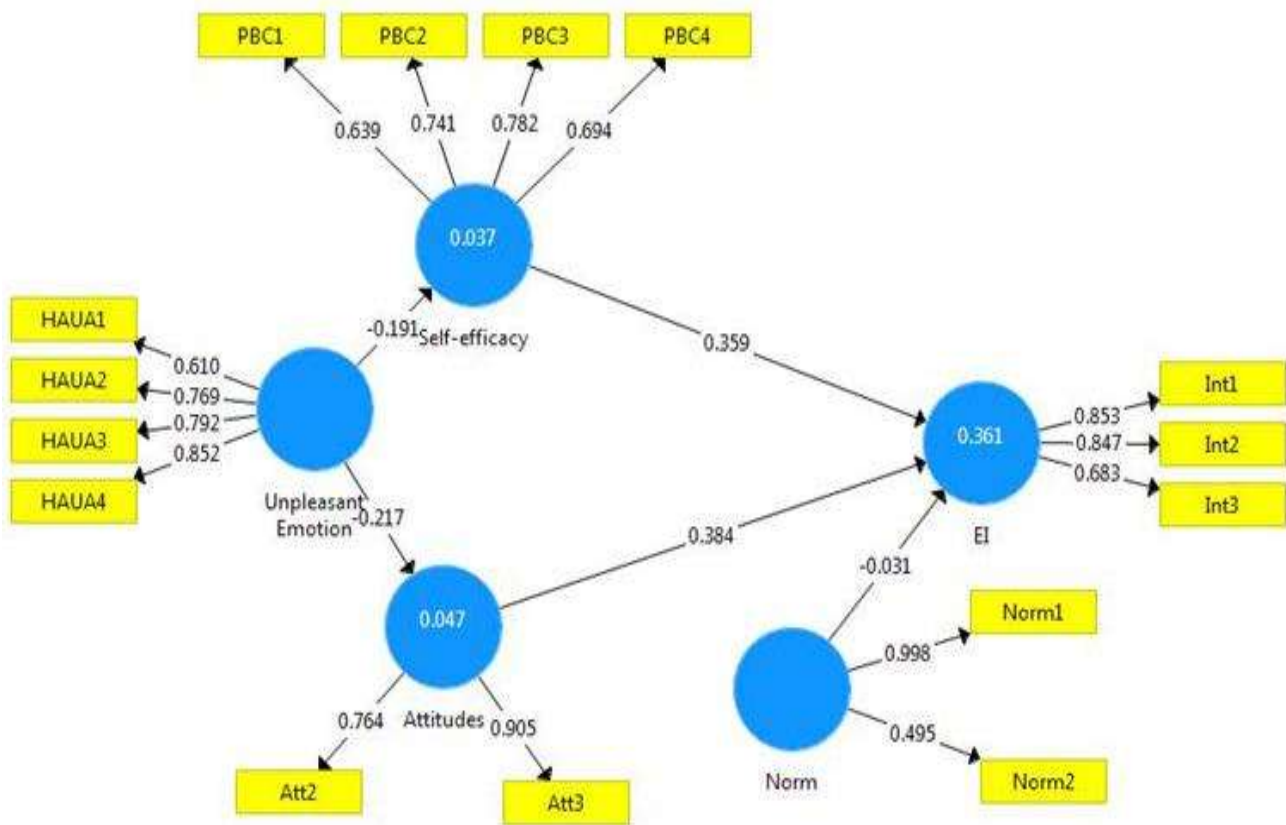


Figure 4: Path analysis model

As shown in figure 4 above, the results of the path analysis are similar to those found using PROCESS macro. According to Hair, Ringle, & Sarstedt (2011), a model fits data when the SRMR is 0.08 or less. In the current study, the model fit was reasonably good (SRMR=0.08).

Discussion of the results

Of all the control and emotion-related variables in this study, only AUE had significant effects on attitudes towards entrepreneurship and entrepreneurial self-efficacy ($\beta = -0.19$, $p \leq 0.05$ and $\beta = -0.19$, $p \leq 0.05$ respectively). However, the main purpose of the study was to determine how emotions influence the elements of the TPB model (attitude and self-efficacy) in the formation of EI. The findings are congruent with Hayton and Cholakova (2012) who posit that emotions and moods play a significant role in influencing the attitude and perceptions of entrepreneurial ideas, which in turn, determine whether the EI are formed or not. AUE also affected the self-efficacy dimension of the TPB model. As recorded by Foo (2011), an individual's thought process and feelings are inextricably inseparable most of the time. Positive emotions may prime the emotions of the potential entrepreneur while negative emotions may depress the thinking of wanting to open a new business venture. These findings confirm the important role of emotions in the formation of EI found by Nabi et al. (2018) in developing economies. Characteristics like poverty, social inequality political instability, and economic stagnation, lead to the development of negative emotions/feelings about the chances of establishing a successful business venture. This in turn instils fear and uncertainty in the mind of an individuals or



students leading to negative judgements and commitment to take entrepreneurship initiatives (Nabi et al., 2018). Like most of the business environments in African countries, Lesotho is strongly a trading and dependent country, characterised by high political instability, uncertainty, poor infrastructure and high employment rates among the youths. We therefore expect unpleasant emotions to depress the creativity of the youth to start their own businesses in such an environment, even though entrepreneurial awareness might be prevalent among them. Our findings are in line with previous studies (Ackerman & Beier, 2003) asserting that emotions are critical background factors that precede the cognitive process that influence self-efficacy in the formation of EI. Emotions therefore precede one's appraisal of the likelihood of success in carrying out entrepreneurial tasks.

In line with previous studies, both attitudes and self-efficacy (PBC) had strong influence on EI (Autio et al., 2001; Schlaegel & Koenig, 2014; Fayolle & Liñán, 2014). Even though social norm did not influence EI in this study, the findings are consistent with prior studies in this area (Autio et al., 2001; Gird & Bargrain, 2008). The results support our hypothesised relationships only with regards to AUE.

Thus, the findings of this study are supported by the Broaden-and-Build Theory (Frederickson, 2004) which holds that when people experience negative emotions (e.g. AUE), their thought –action repertoires and perceptual fields narrow, which may affect their attitudes negatively. As suggested by Foo (2011) entrepreneurs in negative emotional state have a tendency to scrutinise situations from a pessimistic stand point. It is therefore, not surprising that students with negative emotions had lower attitudes towards entrepreneurship. The results are further consistent with the Approach-Avoidance Theory, which holds that unpleasant emotions activate Behavioural Inhibition System (BIS) that triggers negative attitudes (Fodor & Pinteá, 2017). Thus, our results support the findings by Fodor and Pinteá's (2017) that people with pessimistic assessments about the future tend to evaluate situations as more risky than those in positive emotional arousal. A plausible interpretation of this is that when people are under negative emotions (AUE), their innovative thinking is blurred or masked such that their evaluation of situations magnifies the fear in them.

The current results on the effects of AUE on self-efficacy are in line with the previous findings of Kavanagh and Bower (1985) and Medrano et al. (2016) that negative emotions decreased the levels of self-efficacy. This would be expected in entrepreneurship as the complex nature of new business creation makes self- assessment and judgment about self-capability to be a critical consideration before intentions to start a new business are formulated (Dew et al., 2008). Thus, the effects of AUE (tense, stress, nervousness, upset) may lead to a more pessimistic evaluation of self-capabilities or self-efficacy.

Contrary to the findings of Medrano et al. (2016) and Fodor and Pinteá (2017), our results show that positive emotional state (*APE-excitement, enthusiasm, elatedness, joy etc*), did not have an influence on attitudes and self-efficacy. Compared to positive emotions, there is evidence that negative events (emotions) are coded differently; are recalled easily from memory; and have stronger impact on attitudes and behaviour (Baumeister, Bratslavsky, Finkenauer & Vohs, 2001).

Theoretical Implications

Our study presents a new a nuanced theoretical approach to the study of EI by combining cognitive and emotional dimensions in the study of EI using the TPB model. Previous models were focused only on explaining the exogenous factors for the formation of EIs often resulting in disappointingly small explanatory and predictive power. This study offers an opportunity to extend or increase the ability of the TPB to explain and predict the EIs of young people. This is an extension of the TPB model, which has been used widely in the past to predict and explain the EIs of students. This study somewhat support the utility of emotions on EI (Baron, 2008). The fact that both attitudes and self-efficacy mediated the relationship between AUE and EI, suggests that, to better explain and predict the EIs of



students, the conceptualisation of the TPB models should incorporate emotions. By providing empirical evidence that emotions precede attitudes and self-efficacy, these findings add to the body of existing theory on the formation of attitudes and self-efficacy as a cognitive process. The findings are an important attempt to understand the “black box” of the stimulus response model of the nascent entrepreneurs.

Managerial Implications

The findings from this study will have substantial managerial implications. Economic and community development hinges on growing new businesses. To encourage economic development, policy makers must first address the feelings of potential entrepreneurs like students which in turn will influence their attitudes and self-efficacy. In other words, government must realise that policy initiatives for developing the SMEs will increase the formation of new ventures if those initiatives encourage positive emotions of potential entrepreneurs. The findings from this model offer a diagnostic power that government can use to assist students and the youth to realise how their emotions can trigger favourable or unfavourable attitudes and how in turn, this may influence their own EIs. Government can also use this model to make strategic decisions such as decisions to exit or grow new business.

The other practical implication of the findings is that, advocates of entrepreneurship initiatives should critically consider regulating the emotions of youth in their training, to ensure they have positive influence on the attitudes and self-efficacy of students’ entrepreneurship initiatives. Such actions may improve students’ entrepreneurship initiatives and reduce their current high rates of unemployment especially in developing economies.

The other managerial implication is that in the training of potential entrepreneurs, universities and policy-makers should focus on developing positive emotions of students as these will have a positive influence on the attitudes, self-efficacy, EI and ultimately entrepreneurial activities. Managers or policy makers can use this model to better understand the student emotions and thus provide better training. Consultants for entrepreneurship and advisors of entrepreneurship, will benefit from an understanding of how emotions, attitudes, self-efficiency coalesce into intent to start a new business.

Conclusion

Emotions are critical for the formation of the students’ EI to start new business ventures. AUE had an indirect influence on the EI of students through their attitude and self-efficacy. Even though the TPB model remains one of the most robust theories used to predict the EI of students, the exclusion of emotions on the influence of EI by previous researchers represents a huge omission. Emotions are important as they had an influence on students’ entrepreneurial attitudes, self-efficacy and intentions. Researchers have classified emotions as positive (pleasant) and negative (unpleasant) as well as activated and deactivated. The influence of these dimensions of emotions on the EIs of students needs to be examined. While positive emotions would have a positive influence on both the attitudes and self-efficacy of students, negative emotions had a negative influence on both attitudes and self-efficacy of students. Our study shows that such a nuanced approach, that combines the cognitive and emotional dimensions are required in the conceptual models used to the study of EI for students.

Recommendations

Future studies should expand the investigations to determine the influence of emotions on EI when other factors such as environmental, cultural and gender are present. This study was based on students possibly who did not have any exposure to the real world employment situation. As such it is



not clear whether emotions will have the same influence to people with some exposure of the real world employment exposure. Therefore, future studies could extend the current investigation using a longitudinal approach or a tracer study on people who have had some exposure of working experience but who have not yet started their own business ventures. Such studies may be an answer to Africa's high rate of youth unemployment.

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