Does past failure inhibit future entrepreneurial intent? Evidence from Ghana

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Abstract
Purpose – The purpose of this paper is to examine the relationship between past entrepreneurial failure and future entrepreneurial intentions. It also considers the moderating role of past entrepreneurial failure on the relationship between attitude, subjective norms and perceived behavioural control (PBC) and entrepreneurial intentions.

Design/methodology/approach – Data from the Ghana Global Entrepreneurship Monitor Adult Population Survey (2013) are used to test the hypotheses developed after an extensive literature review. The empirical specification was estimated with a probit of standard form and marginal derivatives estimated for the purposes of interpretation.

Findings – The mean future entrepreneurial intent is 63.2 per cent of the sample with 75 per cent having failed in the past and 60 per cent never failed before. Also, only 20.9 per cent of the interviewed entrepreneurs have failed at a past entrepreneurial activity. Past entrepreneurial failure has a positive effect on future entrepreneurial intentions. The interaction between attitude and failure yields a positive effect on future entrepreneurial intentions. The same effects can be reported for the interactions between subjective norms and failure as well as PBC and failure.

Originality/value – In this study, the authors are able to show that the mean moderational effects are important but they can be deceptive. Rather, a decomposition helps the authors to disaggregate these effects to better understand the underlying mechanisms.

Keywords Ghana, Theory of planned behaviour, GEM, Entrepreneurial failure, Entrepreneurial intent, Probit regressions

1. Introduction
The theory of planned behaviour (TPB) is an extension of the theory of reasoned action that links intention with behaviour under conditions of behavioural control (Ajzen, 1991). The theory argues that an individual's intention to undertake a particular behaviour is contingent on the attitude of the person to the behaviour, the subjective norms of the individual as well as the perceived behavioural control (PBC) of the behaviour sought. The theory predicts intention not actual behaviour but argues that there is a strong correlation between intention and behaviour (Ajzen, 2011). The theory has been utilised in understanding beliefs, attitudes, behavioural intentions and actual behaviours in a broad spectrum of academic fields such as marketing (Kim et al., 2013), healthcare (Fisher et al., 2013), procurement management (Kamarulzaman et al., 2013), computing (Ifinedo, 2012) and behavioural change communications (Tweneboah-Koduah, 2014). Another aspect of human behaviour to which TPB has been particularly useful is entrepreneurial behaviour (Engle et al., 2010; Kautonen et al., 2013, 2015). Entrepreneurial intentions have been proposed as the outcomes of attitude, subjective norms and PBC of the individual. Actual entrepreneurial behaviour is then proposed to have a strong correlation with entrepreneurial intentions. Empirical support for the relationship has remained fairly robust. Kautonen et al. (2013) utilising longitudinal data from Finland find that TPB is a very strong predictor of entrepreneurial intentions and actual behaviour. A 12-country study of all the global cultural clusters also finds that TPB fairly predicts entrepreneurial intent in all countries and...
subjective norms predict entrepreneurial intent in all the countries studied and was especially strong in Ghana (Engle et al., 2010). Schlaegel and Koenig (2014) indicate that the moderating role of contextual boundary conditions is relevant to the development of entrepreneurial intent. Furthermore, they have suggested that an integrated model can provide an additional explanatory power and a fuller understanding of the process through which entrepreneurial intent develops. The integrated model that Schlaegel and Koenig (2014) confirm in their paper shows that desirability mediates the relationship between TPB constructs and EI. However, that mediation is not a full mediation but rather a partial one. Consequently, while desirability maybe important it is not the only part to intention. In this study, we have sought moderate the direct paths with EI.

Despite the plethora of studies linking planned behaviour to entrepreneurial intentions a few inconsistencies exist in empirical findings that need resolution. For instance, while some studies find that there is a significant link between subjective norms and entrepreneurial intent (Pruett et al., 2009; Engle et al., 2010; Aloulou, 2016), other studies do not find any support for this assertion (Krueger et al., 2000; Kolvereid, 1996; Tkachev and Kolvereid, 1999). Also, from the perspective of the TPB, studies are focussing on the role of past behaviour in predicting future behaviour through intentions. A synthesis of empirical studies shows that the addition of past behaviour to the prediction equation raised the proportion of explained variance in intentions by between 9.65 and 13 per cent (Albarracin et al., 2001; Sandberg and Conner, 2008). However, what remains unresolved in this sub-strand of the literature is the effect of the consequence of the past behaviour on the future behaviour. For example, attitude towards a behaviour is influenced by the outcome expectancy (Fishbein and Ajzen, 1977), and hence if a person experiences negative outcomes does it accentuate or inhibit future behavioural patterns. Again, it has been argued that when individuals face uncertain outcomes like in entrepreneurial venturing, individuals are likely to rely on past experiences. In particular, when individuals have no clear plan of action, they are more likely to rely on their experiences to gauge their intentions as well (Ajzen, 2002). Consequently, future entrepreneurial intentions are embedded in an environment that establishes the power of past experience. Given the inherent uncertainty associated with business start-up, this represents an excellent area of further research (Carr and Sequeira, 2007). Finally, Engle et al. (2010) have suggested future research on the link between TPB and entrepreneurial intentions should explore other cognitive and non-cognitive source possibilities, as well as variations in the way Ajzen’s model is measured in order to continue improving the model’s usefulness.

Building on the TPB (Ajzen, 1991, 2002), we argue that past entrepreneurial failure helps predict future entrepreneurial intentions while conditioning the relationship between attitude, subjective norms and PBC. We test our claims empirically with data from the Ghana Global Entrepreneurship Monitor (GEM) Adult Population Survey (APS) (2013) in line with suggestions from past studies (Schlaegel and Koenig, 2014). The study makes contributions to the entrepreneurial intentions literature. First, we are able to show that past entrepreneurial failure does not inhibit future entrepreneurial actions as adduced by the self-preservation argument (Mantere et al., 2013) but rather enhances it in line with entrepreneurial learning theory (Cope, 2011; Shepherd, 2003). Second, we show that past failure significantly moderates the relationship between TPB constructs and future entrepreneurial intentions. What is more important is that we go further to show that this moderation is not significant at all levels of the TPB construct and the level of strength in the construct matters for the moderational outcome. Again, we are able to utilise different operational measures than suggested by Ajzen (1991, 2002) to test the robustness of the model in predicting entrepreneurial intentions as suggested by earlier studies (Engle et al., 2010). Finally, the study makes significant contributions to entrepreneurship on the African continent by presenting evidence on past failure and future
entrepreneurial intent from Ghana, one of the shining lights on the continent. This is particularly important because while the entrepreneurship literature is well-recorded, evidence from Africa remains limited (Acheampong and Esposito, 2014). However, the continent is fast evolving on many frontiers and there is need for evidence on the nature of entrepreneurship and its ability to overcome the myriad challenges facing the continent.

The following sections of this paper present the theory and hypotheses, methods, results/findings, discussion of findings, conclusions, limitations and directions for future studies, respectively.

2. Theory and hypotheses development
The relationship between TPB and entrepreneurial intentions has been established in several studies as has been argued above. Consequently, this study does not focus on the relationship between TPB constructs and entrepreneurial intent. Rather, this study focusses how past entrepreneurial failure conditions the relationship between TPB constructs and future entrepreneurial intent. The hypotheses will be developed in that direction.

2.1 Past failure and future entrepreneurial intent
Entrepreneurial failure is a regular part of the entrepreneurial process. In Ghana, it is reported that most entrepreneurial ventures do not see their second year (Abor and Quartey, 2010) while the general failure rates are high with approximately 40 per cent been reported for agricultural SMEs (Acheampong et al., 2017). How entrepreneurs involved in these failed entrepreneurial ventures deconstruct their failures remain of interest to academics with the jury out as to whether entrepreneurs learn from past failures to attempt new ventures or engage in a process of self-preservation. Mantere et al. (2013) have noted that entrepreneurial failure is a very complex social construction, as entrepreneurs construct failure as a means for both cognitive and emotional processing of failure through grief recovery and self-justification. This leads to a situation where entrepreneurs will seek to preserve themselves by limiting their involvement in future entrepreneurial activities (Gruenewald et al., 2004). Self-preservation as a concept is innate to human beings as a mechanism for survival and consequently interpreted figuratively as a coping mechanism one needs to prevent emotional trauma from distorting the mind and in this case trauma from a failed enterprise. However, business failure presents opportunities for entrepreneurs to learn from the failure and prepare for the next enterprising activity (Yamakawa et al., 2015; Shepherd, 2003). This can only be achieved if the entrepreneur can overcome the grief associated with the loss of the business. Psycho-social factors can interfere with an entrepreneurs’ ability to learn from past failures (Yamakawa et al., 2015; Ucbasaran et al., 2013), these include gender (Martin and Doka, 2000), age (Nader, 2016) and family size (van den Berg et al., 2017). A negative emotional response can interfere with the ability to learn from the events surrounding that failure. Entrepreneurial learning theory notes that the entrepreneurial process is one of continuous feedback that increases an entrepreneurs’ knowledge stock and chances of success especially such non-routine events such as business failure (Cope, 2003; Deakins and Freil, 1998; Minniti and Bygrave, 2001).

This learning propensity and improved possibility of business success encourages entrepreneurs to have intentions of starting future entrepreneurial ventures (Cope, 2011). Also, past behaviour anecdotally has been observed as a good predictor of future behaviour. Ajzen (2011) suggests that the dictum that “past behaviour is the best predictor of future behaviour” is supported by much empirical evidence. The finding of a strong correlation between past and later behaviour attests to the temporal stability of the particular behaviour and its antecedents. Empirically, it has been shown that past behaviour accounts for about 17 per cent in future behaviour. Past failure indicates that the entrepreneur has
engaged in some entrepreneurial activity in the past (Armitage and Conner, 2001). However, what planned behaviour stream of literature does not provide is whether people learn from these failures to amend their future actions. In this study, we suggest that entrepreneurs learn from their past failures in order to re-venture into entrepreneurial behaviour. Consequently, we hypothesise that:

\[ H1. \] Past entrepreneurial failure increases the likelihood of starting a future enterprise.

2.2 Attitude, past failure and future entrepreneurial intent
Carr and Sequeira (2007) note that “an attitude is a disposition to respond favourably or unfavourably to an object, person, institution, or event” and is the first determinant of behavioural intentions” (Ajzen, 1991, p. 4). In general, the more positive the attitude towards a behaviour, the stronger the individual’s intention to perform that behaviour (Armitage and Conner, 2001). According to the TPB, people’s evaluations of, or attitudes towards behaviour are determined by their accessible beliefs about the behaviour, where a belief is defined as the subjective probability that the behaviour will produce a certain outcome (Bandura, 1977). The link between attitude and entrepreneurial intentions shows a positive and significant relationship in empirical studies (Kautonen et al., 2013, 2015; Krueger and Carsrud, 1993). Despite this strong empirical support for the link between attitude and entrepreneurial intentions what happens under conditions of past activity and particularly failure remains unreported. This is particularly interesting considering that Ajzen (2011) reports that past behaviour significantly increases the likelihood of the activity been performed in the future. To investigate this question raises the issue of whether past failure reduces the positive outcome expectancy needed for the individual to form the right attitude towards the activity in question (Ajzen and Fishbein, 1975), herein entrepreneurial intentions, and perform it. Past failure can dampen positive attitudes towards future entrepreneurial behaviour in order to self-preserve (Mantere et al., 2013). This is because failure reduces the positive outcome expectancy of the entrepreneur. However, as we have argued in \( H1 \), the reinforcement of the entrepreneurial attitude through its past performance is greater irrespective of the past failure associated with the venturing and that the entrepreneur will pick positive cues that can lead to the likelihood of success in the next venturing process. This is because it is not just the outcome expectancy alone but the urge to be seen as successful in the field of entrepreneurial endeavour. Therefore, entrepreneurs with past failure experience will experience a stronger relationship between attitude and EI, due to attitude fortification from habituation the past activity performance presents (Ajzen, 2011). Subsequently, we hypothesise that:

\[ H2. \] Past failure positively moderates the relationship between attitude and future entrepreneurial intentions.

2.3 Subjective norms, past failure and future entrepreneurial intent
The concept of social influence has been assessed by social norm and normative belief in the TPB. Individuals elaborate thoughts on subjective norms that reflect their perceptions on whether the behaviours they seek to engage in are acceptable to their friends, family and the society to perform the recommended behaviour (Ajzen, 2002). Bandura (1977) suggests that we learn much of our behaviours from others, including family, friends and role models, and it would stand to reason that these same people would have the ability to influence through their encouragement and support to the degree that their opinions are considered important. As a result, such interaction would extend across several facets of life, and may be useful in its ability to influence entrepreneurial intent. However, there is
some inconsistency in the relationship between subjective norms and entrepreneurial intent. For instance, while Pruett et al. (2009) and Engle et al. (2010) concluded that social norms significantly help to explain entrepreneurial intention, Krueger et al. (2000), Kolvereid (1996) and Tkachev and Kolvereid (1999) did not find a significant relationship between subjective norms and entrepreneurial intention. This is an indication of other conditioning factors of which we argue past failure may be a factor. We contend in this hypothesis that if an individual fails in a previous entrepreneurial endeavour yet the society in which the individual lives or his or her relevant others supports entrepreneurial venturing then there is the less likelihood of that person engaging in self-preservation emanating from the failure. Rather, the individual will learn from the entrepreneurial failure to launch a future entrepreneurial endeavour (Shepherd, 2003; Cope, 2011). This is because the social shame to be experienced from failing will be abated as the society supports that before (Gausel and Leach, 2011; Dickerson et al., 2004). The individual will hence be encouraged to try entrepreneurial venturing once more. In a situation where the society is less supportive of entrepreneurial activities, the individual will seek to abate loss of economic and social resources by engaging in a self-preserving behaviour. He or she will therefore be less likely to engage in future entrepreneurial behaviour. Consequently, we hypothesise that:

H3. Past failure positively moderates the relationship between subjective norms and future entrepreneurial intentions.

2.4 PBC, past failure and future entrepreneurial intent

PBC refers to the conviction that one can successfully execute the behaviour required to produce the outcome in line with the concept of self-efficacy (Bandura, 1997). It is linked to control beliefs, which refer to beliefs about the presence of factors that may facilitate or impede performance of the behaviour (Ajzen, 2002). PBC is held to influence both intention and action. The rationale behind PBC is that it would allow the prediction of behaviours that were not under complete volitional control of an individual (Armitage and Conner, 2001). In general, individuals are more disposed (i.e. intend) to engage in behaviours that are believed to be achievable (Bandura, 1977). Applied to entrepreneurship, PBC describes the quantity of perceived difficulties in starting a business (Haus et al., 2013). Research in this area has shown that an individual’s behaviour is highly influenced by confidence in their ability to perform the behaviour necessary to be successful (Bandura, 1986; Swann et al., 2007). It is concerned with “judgments of what one can do with whatever skills one possesses” (Bandura, 1986, p. 391) – in other words, the belief in one’s abilities. However, what remains lacking in this strand of literature is the role of past behavioural failure in either enhancing or inhibiting entrepreneurial behaviour. As has been noted earlier past behaviour improves the predictive validity of the TPB constructs but not as a conditioner (Ajzen, 2002). Conceptually, we argue that if an individual has a high PBC then in the event of failure that entrepreneur is less likely to engage in future entrepreneurial activities. This is because the individual is more likely to engage in a process of self-preservation by reducing the acute threat to the social self in the form of shame and the loss of self-esteem. The high loss of social self-esteem is because of the fact that having a belief in an individual’s personal abilities to execute entrepreneurial activities. Past failure therefore signals a suboptimal utilisation of skill set and therefore self-preservation sets in for survival purposes (Karni and Schmeidler, 1986). These reduce the tendency to learn from the failure experience and prepare for future entrepreneurial ventures (Cope, 2003, 2011). We therefore hypothesise that:

H4. Individuals high in PBC that experience past entrepreneurial failure are less likely to start future enterprises (Figure 1).
3. Research methods

3.1 Data

The study relies on the Ghana GEM data collected in 2013. The GEM research programme was designed as a comprehensive assessment of the role of entrepreneurship in national economic growth. It involves four major data collection activities: APSs, unstructured interviews with national experts, self-administered questionnaires completed by national experts and assembly of relevant standardised measures from existing cross-national data sets (Reynolds et al., 2005). More specifically, this study relies on the APS cross-sectional data set. This is because these data focus on the individual as the driving force of entrepreneurship compared to other data sets that rely on business registrations is able to capture the multi-faceted nature of entrepreneurship including entrepreneurial attitudes, entrepreneurial activity and entrepreneurial aspirations (Bosma et al., 2009). The data collection is conducted by the National Teams in conjunction with the Global Data Team. The data must consist of a minimum 2,000 respondents with Ghana data set comprising 2,260 individual respondents. The respondents must come from all demographic profiles of the country between 18 and 99 years of age across both rural and urban locations (see Global Entrepreneurship Monitor (GEM), 2012 for details). The data have been utilised for several empirical studies (see Sternberg and Wennekers, 2005; Pinillos and Reyes, 2011) and consequently will be useful for empirically testing our hypothesised relationships.

3.2 Operationalisation

Future entrepreneurial intention. This variable is operationalised with the question “Do you expect to start a business in the next three years?” The responses are a binary “Yes” and “No” with “Yes” coded as 1 and “No” coded as 0. There are, however, a few clarifications that are needed in respect of this construct. First, expectations are not exactly intentions (Valliere, 2017). However, the difference is more semantic and if anything expectations have strong probabilities of occurring relative to intentions that are open ended. For example, while intentions represent an aim, an expectation is the strong belief that something will happen. Second, we view future entrepreneurial intentions as a decision to re-enter into business venturing behaviour in line with past studies on the subject (Hsu, Wiklund and Cotton, 2017; Hsu, Shinnar, Powell and Betty, 2017). Again, utilising a binary intention variable has the advantage of helping avoid heteroscedasticity when probit regressions are specified (Wongnaa and Seyram, 2014) while this approach has been utilised by prior studies (Micozzi and Lucarelli, 2016).

Attitude. This variable is measured by the individual’s perception to entrepreneurship index. This index measures whether entrepreneurship is a rewarding carrier path for an individual to take (Reynolds et al., 2005). The index ranges from 0 to 3. The highest score is of those individuals who score 3 out of 3 in the index while the least is of those who score 0.

Subjective norms. We operationalise this variable with the perceived level of cultural support for entrepreneurship in Ghana. Cultural support represents whether entrepreneurship is an acceptable social behaviour to engage in from one’s relevant

Figure 1. Conceptual framework
others (Reynolds et al., 2005). Those individuals who have a high perception cultural support for entrepreneurship score 3 out of 3 in the index while the least is of those who score 0.

**PBC.** This was operationalised with the question “does the individual have the required skills and knowledge to start a business?” The responses are a binary “Yes” and “No” with “Yes” coded as 1 and “No” coded as 0. While multiple questions help better to measure a construct that does not imply that a single properly framed question cannot answer the question appropriately. It has the advantage of reducing burden while been easy for interpretation and policy action (Bowling, 2005). Also, in terms of the econometric theory with large sample sizes responses from these questions approach the population mean and hence are not necessarily disadvantaged (Wooldridge, 2010).

**Past failure.** This was operationalised with the question “what was the most important reason for quitting this business?” This was a follow-up question to whether an entrepreneur had discontinued a business in the last 12 months. The question elicited the responses in Table I. Entrepreneurs who quit their businesses because the business was not profitable had problems getting finance as well as personal reasons are deemed to have failed. Personal reasons are added because only negative reasons can lead to an owner exiting a business. If they were positive, they will not lead to an exit decision. Basic economic intuition suggests that rational economic agents will continue to maximise profits until it is unprofitable to do so. Consequently, if an entrepreneur exits for personal reasons, then it can be inferred that those were reasons that mitigate entrepreneurial profit maximisation (Key, 1999; Reinhardt, 1999). Deliberately planned exits were not considered as exits and so was having identified a better business opportunity. We considered these as strategic venturing behaviour. Consequently, we operationalise past entrepreneurial failure as when entrepreneur leaves a venture involuntarily. Those business owners who had failed were coded as 1 and all other entrepreneurs were coded as 0.

**Age of the entrepreneur.** This was operationalised with the individual’s current age in years.

**Gender.** This was operationalised with a female dummy where female respondents were coded as 1 and male respondents were coded as 0.

**Education.** This was also operationalised with a secondary school and above dummy. Respondents who have secondary school education and above were coded as 1 while those below this threshold were coded as 0.

**Ethnicity.** Ethnicity has been theorised to influence entrepreneurial behaviour as the behaviour is argued to be embedded in social constructions (Danes et al., 2008). This was controlled and operationalised with the majority Akan group as a dummy where Akan respondents are coded as 1 and non-Akan respondents are coded as 0.

**Household size.** Household sizes influence the availability of economic resources needed to finance future entrepreneurial intentions (Gentry and Hubbard, 2000). We control this effect with the question: “How many members make up your permanent household, including you?”

<table>
<thead>
<tr>
<th>Reason</th>
<th>Frequency</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>An opportunity to sell the business</td>
<td>2</td>
<td>0.32</td>
</tr>
<tr>
<td>Retirement</td>
<td>6</td>
<td>0.95</td>
</tr>
<tr>
<td>The exit was planned in advance</td>
<td>23</td>
<td>3.63</td>
</tr>
<tr>
<td>Another job or business opportunity</td>
<td>29</td>
<td>4.57</td>
</tr>
<tr>
<td>An incident</td>
<td>63</td>
<td>9.94</td>
</tr>
<tr>
<td>Personal reasons</td>
<td>142</td>
<td>22.4</td>
</tr>
<tr>
<td>The business was not profitable</td>
<td>166</td>
<td>26.18</td>
</tr>
<tr>
<td>Problems getting finance</td>
<td>203</td>
<td>32.02</td>
</tr>
<tr>
<td>Total</td>
<td>634</td>
<td>100</td>
</tr>
</tbody>
</table>

Table I. Reasons for past business exit
3.3 Empirical strategy and specification

To examine our hypotheses, we specify a probit model of general form:

\[ P(\text{FEI} = 1) = \Phi(\beta_0 + \beta_1 \text{COV} + \beta_2 \text{TPB} + \beta_3 \text{PFE} + \beta_4 \text{INT} + \epsilon_t) \]

where \( P(\text{FEI} = 1) \) is the probability of starting a new business; COV is the control variables in the model; TPB are the constructs from the theory of planned behaviour; PFE is having suffered a past failure experience; INT is the interaction effects between TPB constructs and PFE effect; \( \beta \) is the coefficient to be estimated; \( \epsilon_t \) is the statistical noise and \( \Phi \) is the cumulative distribution function of the standard normal distribution. The probit model is specified because the dependent variable is binary and does not lend itself to ordinary least squares (OLS) estimations (Wooldridge, 2010). The magnitude of the coefficients of the probit model cannot be interpreted and hence we also estimated for the average marginal effects (AME) of the model which can be interpreted in the sense in which OLS estimations are interpreted. We model the AME of our probit using the following function:

\[ \frac{\partial \text{ES}}{\partial V_i} = \beta_i \Phi(\beta_0 + \beta_1 V + \epsilon) \]

where \( \frac{\partial \text{ES}}{\partial V_i} \) is a partial derivative with respect to \( V \) (a given vector) and the index \( i \) refers to the \( i \)th independent variable in \( V \). All the model estimations are computed using the maximum likelihood approach and are robust to heteroscedasticity. To estimate the source of failure differential, a Blinder-Oaxaca non-linear decomposition is specified.

Threefold decomposition (Sinning et al., 2008):

\[ Y_F - Y_N = (X_F - X_N)\beta_N + X_N(\beta_F - \beta_N) + (X_F - X_N)(\beta_F - \beta_N) \]

where \( N \) and \( F \) represent entrepreneurs with (\( F \)) and without (\( N \)) past failures, respectively; \( Y_F - Y_N \) is the difference in entrepreneurial intention between past failures and non-failures in entrepreneurs; \( X \) is the mean value of the explanatory variable and \( \beta \) is the estimated coefficient for each group. The first and second parts of the right-hand sides of the equations represent the characteristic and coefficient effects, respectively, and in the case of the threefold decomposition third part represents the interaction effect.

4. Results

4.1 Descriptive Results

Table II presents the summary statistics of the study sample. The mean future entrepreneurial intent is 63.2 per cent of the sample. However, when decomposed into entrepreneurs with past failures and those without it, it can be observed that entrepreneurs with past failure

<table>
<thead>
<tr>
<th>Variable</th>
<th>General sample</th>
<th>No failure experience</th>
<th>Failure experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Min.</td>
<td>Max.</td>
</tr>
<tr>
<td>Future entrepreneurial intent</td>
<td>0.632</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Age of entrepreneur</td>
<td>35.230</td>
<td>19</td>
<td>65</td>
</tr>
<tr>
<td>Gender (female = 1)</td>
<td>0.412</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Education (SHS and above = 1)</td>
<td>0.263</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Ethnicity (Akan = 1)</td>
<td>0.510</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Household size</td>
<td>5.867</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>Attitude</td>
<td>2.042</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Subjective norms</td>
<td>2.602</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Perceived behavioural control</td>
<td>0.733</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Past failure</td>
<td>0.209</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Table II.
Summary statistics
experiences drive the future entrepreneurial intent. In total, 75 per cent of these entrepreneurs report having future entrepreneurial intentions relative to the 60 per cent of those who have not failed before. Also, only 20.9 per cent of the entrepreneurs interviewed have failed at a past entrepreneurial activity. The mean individual attitude towards entrepreneurship is 2.04 and is not significantly different across the past failure experience or not groups. The mean figure across general sample and sub-groups shows that the mean is close to the third quartile. The mean subjective norms of the significant others of the entrepreneurs interviewed indicate 2.602, with those entrepreneurs with a failure experience reporting 2.620 and those with no failure experience reporting 2.597. In terms of PBC, it is observed that 73.3 per cent entrepreneurs report having the right skills needed to undertake an entrepreneurial venture. The average age of respondents was 35 years while 41 per cent of the respondents were female. In all, 51 per cent of the respondents were from the majority Akan ethnic group while the average household size is 6.

4.2 Regression results
Table III presents the marginal effects from the probit estimations from our empirical specifications. Model 1 presents the control model while Model 2 includes variables from the TPB. Model 3 adds past failure to the independent variables while Model 4 is the model with full specification with moderating variables. Generally, we observe that the age of the entrepreneur negatively influences future entrepreneurial intentions across all specifications. The gender effect is only significant in the control model. Belonging to the majority Akan ethnic group has a negative and significant effect on future entrepreneurial intentions across all the models. Household size has a negative and significant effect in Models 2-4. The individual’s attitude to entrepreneurship as well as his/her subjective norms have positive and significant effect in all the models estimated. PBC is not seen to be significant in any of the models although positive. Past entrepreneurial failure has a positive effect on future entrepreneurial intentions in Models 3 and 4. The interaction between attitude and failure yields a positive effect on future entrepreneurial intentions. The same effects can be reported for the interactions between subjective norms and failure as well as PBC and failure. These interactions are performed at the means of the independent variables and have the possibility of masking true individual effects. Table IV presents the marginal effects for all levels of the independent variables. As indicated in the operationalisation section above responses for subjective norms and attitudes appear on a four-point scale.

<table>
<thead>
<tr>
<th>DV: future entrepreneurial intent</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of entrepreneur</td>
<td>-0.004***</td>
<td>-0.003***</td>
<td>-0.002***</td>
<td>-0.002***</td>
</tr>
<tr>
<td>Gender (female = 1)</td>
<td>0.041*</td>
<td>0.009 (0.25)</td>
<td>0.023 (0.025)</td>
<td>0.023 (0.025)</td>
</tr>
<tr>
<td>Education (SHS and above = 1)</td>
<td>0.014 (0.024)</td>
<td>0.006 (0.027)</td>
<td>0.012 (0.027)</td>
<td>0.012 (0.027)</td>
</tr>
<tr>
<td>Ethnicity (Akan = 1)</td>
<td>-0.061***</td>
<td>-0.081***</td>
<td>-0.084***</td>
<td>-0.083***</td>
</tr>
<tr>
<td>Household size</td>
<td>-0.004 (0.003)</td>
<td>-0.006***</td>
<td>-0.006***</td>
<td>-0.006***</td>
</tr>
<tr>
<td>Attitude</td>
<td>0.045***</td>
<td>0.040***</td>
<td>0.040***</td>
<td>0.040***</td>
</tr>
<tr>
<td>Subjective norms</td>
<td>0.055***</td>
<td>0.056***</td>
<td>0.056***</td>
<td>0.054***</td>
</tr>
<tr>
<td>Perceived behavioural control</td>
<td>0.030 (0.034)</td>
<td>0.037 (0.034)</td>
<td>0.041 (0.035)</td>
<td></td>
</tr>
<tr>
<td>Past failure</td>
<td>0.126***</td>
<td>0.114***</td>
<td>0.114***</td>
<td></td>
</tr>
</tbody>
</table>

**Moderation effects (at means)**

| Attitude × failure               | 0.117***    |
| Subjective norms × failure       | 0.116***    |
| PBC × failure                    | 0.081***    |
| Pseudo $R^2$                      | 0.037       |
| n                                | 2218        |

**Notes:** Models robust to heteroscedasticity. Standard errors in parentheses. *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$
Each point represents a quartile that can have different implications for moderational outcome and interpretation. As our results show, the first two quartiles of subjective norms are seen as insignificant while the last two quartiles are seen as significant. The same trend can be observed for the attitude variable. The PBC has a binary variable. The effects show that they are both significant.

5. Discussion of findings

In this section, we discuss the findings in relation to existing literature while highlighting its contributions to the literature. We will also discuss implications of our findings for theory and practice. We utilise Model 4 for our discussion since it is the fully specified model and has a better pseudo $R^2$ of 0.039. The other models will help us understand the stability in our relationships and place the discussion within the context. In $H1$, we argued that past entrepreneurial failure can either lead to a self-preserving behaviour by an entrepreneur that can inhibit his or her future entrepreneurial intent (Gruenewald et al., 2004) or the entrepreneur can learn to process the failure and utilise the lessons learnt to improve future chances of success (Cope, 2003; Deakins and Freel, 1998; Minniti and Bygrave, 2001). Also, Ajzen (2011) has argued that past behaviour of which past failure is a subset significantly predicts future behaviour. Consequently, we stated that past entrepreneurial failure increases the likelihood of starting a future enterprise and find support for this claim in the empirical analysis.

$H2$ explores the moderating role of past failure experience on the relationship between an individual’s attitude towards entrepreneurship and his or her future entrepreneurial intentions. The general consensus in the literature is that a more positive attitude towards a behaviour should lead to intentions to perform the behaviour (Armitage and Conner, 2001). We suggest that it is possible for past failure to reduce the positive expectancy of an individual towards the behaviour and reduce the possibility of engaging in the entrepreneurial behaviour in the future (Mantere et al., 2013). However, we also note the fact that an individual performing an activity in itself can be a stronger behavioural reinforcement (Hansemak, 1998). Consequently, we hypothesise for a positive reinforcement and have support for our claim. However, this support can be limited to only individuals in the third and fourth quartiles of the attitude scale utilised for this study. Next, we explored the moderating role of past failure on relationship between subjective norms (Gelaidan and Abdullateef, 2017) and future entrepreneurial intentions. We find that the effect is positive and significant. This finding supports the assertion that even when an individual engages in self-preservation after a failed experience with supportive relevant others, who understand the benefits of the behaviour, he/she is more likely to engage in the behaviour in the future (Shepherd, 2003; Ajzen, 2002; Bandura, 1977). This is because of the lack of social and psychological punishment for failure (Gausel and Leach, 2011; Dickerson et al., 2004).

A decomposition of the moderation effects reveals that these positive moderational effects are only significantly experienced by those individuals who have relevant others in

<table>
<thead>
<tr>
<th>Quartiles</th>
<th>Subjective norms</th>
<th>Attitude</th>
<th>Entrepreneurial skill</th>
<th>PBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>First quartile</td>
<td>0.012 (0.131)</td>
<td>-0.020 (0.107)</td>
<td>No</td>
<td>0.199*** (0.058)</td>
</tr>
<tr>
<td>Second quartile</td>
<td>0.056 (0.082)</td>
<td>0.032 (0.059)</td>
<td>Yes</td>
<td>0.081** (0.038)</td>
</tr>
<tr>
<td>Third quartile</td>
<td>0.096** (0.039)</td>
<td>0.114*** (0.029)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth quartile</td>
<td>0.127*** (0.032)</td>
<td>0.164*** (0.042)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>1,742</td>
<td>1,742</td>
<td>1,742</td>
<td></td>
</tr>
</tbody>
</table>

Table IV. Marginal effects at all levels of independent variables

Notes: Models robust to heteroscedasticity. Standard errors in parentheses. *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$
the third and fourth quartiles. In the final hypothesis, we state that individuals high in PBC who experience past entrepreneurial failure are less likely to start future enterprises. This is because PBC involves a high individual self-efficacy and hence failure results in high loss of social self-esteem. Past failure therefore signals a suboptimal utilisation of skill set and therefore self-preservation sets in for survival purposes (Karni and Schmeidler, 1986) leading to tendency to not to learn from the failure experience and prepare for future entrepreneurial ventures (Cope, 2003, 2011). We find a marginal support for this claim. The main effect looks positive but when we explored the data into details we find the coefficient for not having entrepreneurial skills is higher than having the skills although both are significant and positive.

5.1 Implications for theory and practice
The study findings have practical implications for the entrepreneurial development in Ghana. First, individual attitudes and support from relevant others are seen as the driving forces of entrepreneurial intention in Ghana. Consequently, agencies seeking to develop entrepreneurial talent should seek to influence attitudes and drive social support for entrepreneurship. This can be achieved to build positive social perceptions of entrepreneurship as a career choice as well as help individuals to develop a positive disposition towards entrepreneurship. Second, past failure does not negatively influence future entrepreneurial intentions but not all groups experience this significantly. Those entrepreneurs who have low attitudes towards entrepreneurship and those who experience little support from their significant others are more likely to give up after a failed experience. These entrepreneurs need to be encouraged to develop new ventures. Those high in attitude and social support are more likely to start again by themselves.

In terms of the theory, this study makes important contributions to the entrepreneurial intentions literature utilising the TPB. First, we are able to show that past entrepreneurial failure does not inhibit future entrepreneurial actions as adduced by the self-preservation argument (Mantere et al., 2013) but rather enhances it in line with the entrepreneurial learning theory (Cope, 2011; Shepherd, 2003). Second, we show that past failure significantly moderates the relationship between TPB constructs and future entrepreneurial intentions. This suggests that planning to engage in future entrepreneurial activity is conditional on whether the individual has engaged in the behaviour and failed in the past. What is more important is that we go further to show that this moderation is not significant at all levels of the TPB construct and the level of strength in the construct matters for the moderational outcome. Finally, we are able to utilise different operational measures than suggested by Ajzen (1991, 2002) to test the robustness of the model in predicting entrepreneurial intentions as suggested by earlier studies (Engle et al., 2010).

6. Conclusion, limitations and future research directions
This study sought to examine the relationships between past entrepreneurial failure, TPB constructs and future entrepreneurial intentions. We find summarily that the future entrepreneurial intent is 63.2 per cent while only 20.9 per cent of the entrepreneurs interviewed have failed in the past. This past entrepreneurial failure positively influences future entrepreneurial intent. This means that entrepreneurs learn from their past failures to develop intentions to start future businesses. The interaction between attitude and failure yields a positive effect on future entrepreneurial intentions. This means that social norms and positive attitude towards entrepreneurial intentions are not dampened by past failures but strengthened due to learnings from past failures. The same effects are observed for the interactions between subjective norms and failure as well as PBC and failure. What is more important is that we go further to show that this moderation is not significant at all levels of the TPB construct and the level of strength in the construct matters for the moderational outcome.
From an entrepreneurial perspective, our findings show that Ghanaian society does not punish past entrepreneurial failure to the extent of self-preservation. Rather, past failure becomes a learning mechanism to re-enter entrepreneurship.

This study makes a significant contribution to the relationship between planned behaviour constructs and entrepreneurial intention in an emerging economy context using a large data set with new operationalisations by examining the moderating role of past failure experience. However, there are many other individual and contextual factors that can influence and limit the nature of the relationships that were examined. For instance, in our current model, we hold entrepreneur’s age, age of business before failure, ethnicity and household size constant but these can influence the nature of intentions and effect of failure on TPB constructs. These therefore open several opportunities for future researchers to decompose the effects of these relationships. Second, the failure experience variable was operationalised from reasons for exiting from a past business. Future researchers can focus on developing explicit failure variables from earlier studies (Shepherd, 2003) for improved contextualisation. Again, Schlaegel and Koenig (2014) have noted that TPB constructs partially influence EI but in this study we did not focus on this link, holding it constant. Future studies can seek to disaggregate the integrated model they present along past failure lines to understand specific path effects in this direction. Another limitation that provides opportunities for future research is the data utilised for testing our empirical arguments. While the GEM data offer opportunities for utilising a large data set that is readily available, it does not exactly measure failure while the failure variable is not explicit but constructed. Future researchers can deal with these challenges utilising primary data sets.

References


**Further reading**


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1. Otache Innocent, Innocent Otache. 2019. Entrepreneurship education and undergraduate students’ self- and paid-employment intentions. Education + Training 61:1, 46-64. [Abstract] [Full Text] [PDF]