

Regulatory Focus, Persistence and New Venture Performance

Abstract

Purpose

The purpose of this article was to examine the joint effects of regulatory focus, entrepreneurial persistence, and institutional support on new venture performance.

Design/methodology/approach

This paper uses a random survey approach to sample 229 new ventures from Ghana. The moderated mediation method was used to analyze the survey data.

Findings

The findings from this paper show that entrepreneurs' promotion focus positively relates to persistence while prevention focus negatively influences persistence. Besides, persistence mediates the link between regulatory focus (promotion and prevention focus) and new venture performance. These relationships are positively moderated by perceived institutional support.

Research limitations/implications

Using data from only the manufacturing sector in Ghana limits the generalisability of this paper. Also, persistence was not observed or measured directly in this paper but was only used as a self-reporting variable that captures an individual's tendency to persist.

Originality/value

The contribution of this paper is threefold. First, this paper contributes to regulatory focus literature by enhancing our knowledge of how self-regulation could help explain entrepreneurial decision-making. Second, this paper broadens self-regulation literature by adding institutional context as a moderating variable. Third, this paper helps clarify the potential role of persistence in entrepreneurship.

Keywords: *regulatory focus; persistence; Ghana; new ventures; performance; institutional support*

1. Introduction

The entrepreneurship literature indicates that characteristics of entrepreneurs influence the performance of their firms by infusing various aspects of themselves (their values, personality, motivations, and experiences) into multiple aspects of the firm and its functioning (Wallace et al., 2010). The influence of these characteristics is particularly important in new ventures as

these executives have more discretion over decision-making (Hambrick & Finkelstein 1987). Accordingly, researchers in entrepreneurship have sought to understand how these characterizes influence firm outcomes such as performance of new ventures (Baron & Tang, 2011; Baum & Locke, 2004; Cardon & Kirk, 2015; Hambrick, 2007; Hmieleski, Corbett & Baron, 2013; Lanaj et al., 2012) and survival (Acheampong, 2018; Acheampong, Narteh, and Rand, 2017). For example, utilizing insight from the literature on risk and decision-making (e.g., March & Shapira, 1987), DeTienne and colleagues (2008) find that entrepreneurs of underperforming ventures are more likely to persist in a high-munificence environment than in a low one.

Despite this massive knowledge accumulation in entrepreneurs' psychological and personality characteristics and venture outcomes, key knowledge deficits remain within the realm of entrepreneurship research. First, although research has identified several personal factors that determine business persistence or exit (Justo, DeTienne & Sieger, 2015; Zhu, Burmeister-Lamp & Hsu, 2017; Zhu et al., 2018), the effects of regulatory focus (i.e., a motivational set that determines an individual's ambitions and how that individual plans to achieve those goals) on persistence lack theoretical precision. Second, previous studies in entrepreneurship suggest that entrepreneurs who persist have a greater chance of success (Baum & Locke, 2004). However, the performance benefits of this individual attribute are under-researched. While the mechanism often used to explain a positive association between entrepreneurial persistence and venture success is intuitively appealing, an understanding of how persistence drives new venture success is less understood. Third, extant studies show that the decision-making behavior of top management is influenced by exogenous factors (Adomako, Opoku & Frimpong, 2017; Hambrick, 2007; Lanaj et al., 2012). For example, previous work suggests that the effects of entrepreneurs' regulatory focus on their behavioral outcomes depend

on contextual factors such as the environmental context (e.g., Hmieleski & Baron, 2008; Lanaj et al., 2012) as contextual factors such as institutional support may alter how entrepreneurs perceive their goal achievement trajectory. Regrettably, this gap remains despite the mounting research evidence, which suggests that there is a lack of theoretical clarity regarding the institutional contexts (e.g., Blau, 1964; Klapper et al., 2006) under which regulatory focus may affect entrepreneurs' psychological characteristics in their decision-making remain unexplored.

To address these knowledge voids, this paper derives insights from regulatory focus theory (Higgins, 1997; 1998; Higgins, 2001) to examine the effects of entrepreneurs' regulatory focus on persistence. Additionally, this study draws on institutional theory (North, 1990; 2005) to investigate institutional context as a mechanism that may help highlight when entrepreneurs' regulatory focus may drive persistence as well as the effect of persistence on venture success.

This paper makes several contributions. First, this paper examines the potential impact of regulatory focus on entrepreneurs' persistence. Over the past decade, numerous studies have examined the effects of social-psychological factors on the entrepreneur's persistence vs. exit (cf., Wennberg and DeTienne, 2014), while scant attention has been paid to personality traits. This study revisits the trait explanation for business persistence and demonstrates that some entrepreneurs are *dispositioned* (i.e., driven by their personality) to persist while others quit. Because persistence is an important factor in determining venture growth (Baum & Locke, 2004), the results of the paper provide further support to the previous findings that entrepreneurs with certain personality traits may be more likely to succeed (Hmieleski & Baron, 2008). Moreover, this paper helps to understand the process that "separates those who continue to pursue opportunities from those who abandon the effort" (Shane, Locke & Collins 2003, p. 271).

Second, this paper broadens prior regulatory focus research (e.g., Higgins, 1997, 1998; Higgins, 2001; Wallace et al., 2010) by adding institutional support as a crucial moderating variable of the link between regulatory foci and entrepreneurial persistence. The essence of institutional theory is that the broader context of businesses – consisting of social, cultural, economic, political, and technological factors– significantly influences entrepreneurial behavior. This research effort highlights the relevance of the notion of regulatory fit (Higgins, 2000) by showing that the effects both promotion and prevention focus on persistence are differentially moderated by institutional support. Therefore, this paper considers institutional support as a legitimate moderator in these relationships as new ventures are likely to adapt their activities and strategies to fit the opportunities and limitations provided through formal and informal institutional frameworks. Third, by investigating the institutional conditions under which persistence drives new venture success, this paper adds to the growing literature on entrepreneurial persistence (e.g., Adomako et al., 2016; Baum & Locke, 2004; Cardon & Kirk, 2015; Holland & Shepherd, 2013; Markman et al., 2005; Wu et al., 2007). Thus, the outcome from this inquiry can help improve scholars' understanding of the appropriate institutional conditions under which entrepreneurs' persistence is likely to drive new venture success.

The rest of the paper is organized as follows. Section two presents the theoretical background and research hypotheses, as displayed in Figure 1. Section three describes the methods employed to carry out this research. This is followed by the data analyses and results of the paper in section four. Section five discusses the findings and offers implications of the paper. Section six presents the limitations of the paper and direction for future research. Lastly, this paper concludes in section seven.

2.1 Theoretical background and hypotheses

2.1 Regulatory focus theory

Regulatory focus theory (Higgins, 1998) is a socio-cognitive theory which suggests that individuals have two main modes to regulate their behaviors: promotion focus and prevention focus orientations. Individuals who possess a promotion focus orientation are motivated by higher achievements and growth in society (Crowe & Higgins, 1997). This socio-cognitive orientation is triggered by “hits” in that a promotion focus orientation is characterized by a potential for gains and advancements. Thus, persons with a promotion focus orientation are motivated to receive positive and gainful outcomes. These help these individuals to strive for success by maximizing rewards for their efforts (Brockner et al., 2004). Consequently, individuals with a promotion focus orientation mostly emphasize more on ideal outcomes in most situations. Therefore, they avoid anticipating negative outcomes.

Contrarily, individuals employing a prevention focus orientation concentrate their actions on ensuring correct rejections and avoid errors or potential negative outcomes (Higgins, 1998, 2000). These individuals tend to concentrate on avoiding potential losses. Thus, prevention focus orientation individuals pay much attention to ensuring safety and security due to fear of punishment.

The regulatory focus literature indicates that individuals can possess different combinations of high or low levels of promotion and prevention foci. This is because promotion focus and prevention focus orientations are not two ends of a continuum but orthogonal (Higgins et al., 2001). Individuals’ regulatory foci influence how they make decisions (Crowe & Higgins, 1997). Regulatory focus directly relates to key dimensions of strategic decision making. In short, regulatory focus tends to influence the strategic preferences of decision-makers and therefore

makes it a key attribute of entrepreneurs to examine. Thus, individuals' regulatory focus is likely to influence entrepreneurial persistence and ultimately their venture performance.

INSERT FIGURE 1 HERE

2.2 Persistence in entrepreneurship

Entrepreneurs' persistence occurs when the entrepreneur decides to continue with an opportunity irrespective of adversity or attractive alternatives (Gimeno, et al., 1997). Indeed, persistence in entrepreneurship consists of two specific components: First, to carry on with earlier defined entrepreneurial opportunity, and second, forging ahead with an opportunity in the face of adversity or opposing forces that motivate the individual. These forces may include unpalatable feedback about an opportunity pursued by the individual or positive feedback about a different opportunity that entices the individual (Holland & Shepherd, 2013).

Persistence is crucial in entrepreneurship because it helps entrepreneurs to succeed in going through the constraints of founding and growing a business (Cardon & Kirk, 2015). Besides, persistence is important for sustaining entrepreneurs' efforts during the start-up stage of a business venture (Wu et al., 2007). However, persistence can result in either positive or negative outcomes. This is important because research has paid substantial attention to the outcomes of persistence (e.g., Sutcliffe & Vogus, 2003; Youssef & Luthans, 2007; DeTienne et al., 2008). Thus, persistence may ultimately result in success, but it may also be costly to the entrepreneur if resources are allocated to an unprofitable venture when this could have been ventured into other profitable opportunities (McGrath, 1999). As such, it is crucial to examine the outcomes of persistence, such as performance, in entrepreneurship.

2.3 Regulatory foci and persistence

The management literature shows that individuals' personality characteristics influence their behaviors (Finkelstein, Hambrick & Cannella, 2009). Additionally, research indicates that individuals' psychological and personality characteristics influence the way they process and interpret information in their decision-making choices (e.g., Crowe & Higgins, 1997). Thus, it can be argued that a promotion focus orientation will enhance their vision to persist as they contemplate to continue to pursue opportunities. A broader view of persistence is that, it may enhance their ability to search for more opportunities and thus, enhancing their pursuit of more successful hits.

A promotion focus orientation is characterized by motivation and desire to chalk success in pursuit of a variety of alternatives (Higgins, 1998). This may serve as a mechanism to facilitate persistence. Moreover, entrepreneurs' promotion focus orientation may help them to persist in times of difficulties or pursue opportunities that bring attractive change or positive outcome. Thus, an entrepreneur with a promotion focus orientation which is like to exhibit tenacious goal pursuit because a promotion focus orientation is predisposed to "yes" (Crowe & Higgins, 1997). As a result of this inclination for approval and the tendency to chalk success, entrepreneurs this orientation could be expected to persist. Thus, it is suggested that:

H_{1a}: *Entrepreneurs' promotion focus orientation positively relates to persistence.*

Contrarily, an individual with a prevention focus orientation strives on achieving safety and preserves the status quo by focusing on goal-striving strategies (Higgins, 1997; Liberman et al., 1999). These individuals are more conscious about the accountability of their behaviors and are motivated to prevent mistakes. Thus, they guard against committing errors in pursuit of their goals (Brockner & Higgins, 2001). As such, entrepreneurs with a prevention orientation will likely be motivated to narrow their potential options to avoid making mistakes pursuing goals.

This may prevent entrepreneurs to navigate the complex challenges of the entrepreneurial process.

Besides, individuals using a prevention focus orientation may be vigilant (Higgins, 1998). As individuals these individuals are more concerned about the responsibility of their behaviors, entrepreneurs using a prevention focus orientation may find it persist because of the fear of the unknown. Accordingly, this paper argues that entrepreneurs using this orientation could be expected to employ a narrower view when facing difficulties and obstacles in the entrepreneurial process. As observed in the entrepreneurship literature (e.g., Markman, Baron & Balkin, 2005; Wu, Matthews & Dagher, 2007), the entrepreneurial process comes with many challenges. As such, individuals using this orientation could be expected to abandon the entrepreneurial journey when faced with difficulties as persistence in times of adversity may increase the risk of disruption. Thus, entrepreneurs with a prevention focus orientation are unlikely to persist to avoid potential errors. The above arguments lead to the following hypothesis:

H1_b: *Entrepreneurs' prevention focus orientation negatively relates to persistence.*

2.4 The moderating influence of institutional support

The regulatory focus literature suggests that self-regulation allows individuals a sense of “feeling right” with regards to their goal attainment in the environment (Higgins, 2000, Higgins 2001). According to Cable & Parsons (2001), certain business contexts make certain individuals “feel right” and entrepreneurial action towards goal attainment should match opportunities in the business environment. This paper contends that because promotion and prevention focus involve different risk tolerance levels, the impact of entrepreneurs' regulatory focus on persistence depends on the strength of the institutional environment.

Institutional support provides incentives and opportunities for entrepreneurs in terms of the ease of doing business (Saeed, et al., 2015, Turker & Selcuk, 2009). The institutional context offers economic and political support such as private, public, and non-governmental support for entrepreneurs. Thus, an institutionally supportive environment could help entrepreneurs using promotion focus orientation to search and pursue opportunities that make them feel right. For example, when entrepreneurs perceive the environment to be supportive, a promotion focus orientation tends to offer maximal goals (Wallace et al., 2010).

This paper argues that in an environment characterized by a supportive environment in terms of ease of doing business, entrepreneurs' promotion focus orientation will enhance their efforts to persist to continuously achieve greater "hits" and feelings of joy (Idson et al., 2000). Therefore, given that entrepreneurs with a promotion focus orientation focus on maximal goals, the perception of support from the environment should stimulate them to put more effort to persist. Based on the foregoing arguments, it is suggested that:

H2_a: *Institutional support positively moderates the relation between entrepreneurs' level of promotion focus and persistence*

Conversely, a prevention focus orientation makes individuals unsatisfied in the quest to fulfill their obligations (Higgins, 1997). The regulatory focus literature shows that this situation results in fear and worry (Idson et al., 2000) and ultimately leads to a "lack of regulatory closure" (Baas et al., 2011). As such, where there is less support for entrepreneurs, there is a danger for chaos, and this can be prohibitive to the strategic options open to entrepreneurs. Thus, high (as opposed to low) levels of institutional support are the ideal situation for converting a prevention focus orientation into a higher persistence. For instance, barriers to entry into the market may make individuals using a prevention focus to exhibit a lower persistence. However, if entrepreneurs perceive the

environment to be supportive, they will be more confident to persist to adapt to the institutional conditions. Thus, this paper contends that entrepreneurs with high levels of prevention focus become more open to engaging in persistence at high levels of institutional support. Consequently, this paper argues that the negative link between high prevention focus orientation and persistence is attenuated in a highly supportive environment. Thus, it is hypothesized:

H_{2b}: *The negative effect of entrepreneurs' prevention focus on persistence is attenuated when institutional support is stronger.*

2.5 Persistence and new venture performance

Persistence in entrepreneurship can result in both positive and negative consequences (Holland & Shepherd, 2013). As such, the outcomes of persistence are extremely crucial. Collectively, as observed in the entrepreneurship literature, entrepreneurs who exhibit tenacity in their goal pursuit are likely to succeed (Shane, Locke & Collins, 2003). Also, it has been suggested that persistence helps entrepreneurs to achieve success in the entrepreneurial process by helping them to sustain their efforts in founding and growing their ventures (Wu et al., 2007). Due to huge investments, efforts, and money needed to get a venture on its toes, persistence throughout the entrepreneurial process is important. Previous entrepreneurship research indicates that persistence relates to enhanced motivation, which ultimately leads to venture performance (Baum & Locke, 2004). Accordingly, this paper offers the following hypothesis:

H_{3a}: *Entrepreneurs' persistence positively relates to new venture performance.*

2.6 Persistence, institutional support, and new venture performance

As observed in the literature, the effects of individuals' psychological and personality characteristics on firm outcomes occur against a backdrop of environmental contexts (e.g., Baron & Tang, 2011; Wallace, et al., 2010). Many socio-cultural, political, and economic factors

influence entrepreneurial behavior. The institutional context within which firms operate defines the rules of the game for entrepreneurship (North, 2005). As such, this paper incorporates the institutional context logic by investigating the potential moderating influence of perceived institutional support concerning the link between persistence and new venture performance.

This paper argues that if entrepreneurs perceive the institutional context to be supportive, they will be more confident to persist and hence increase performance. On the other hand, if entrepreneurs perceive that the institutional environment is not supportive of entrepreneurial activities, they will be loath to forge ahead in times of difficulties and this can attenuate performance. For example, when entrepreneurs perceive the environment to be supportive in terms of flexible credit, venture capital, infrastructural development, R&D laboratories, and training opportunities, they may pursue riskier opportunities in the environment. Therefore, this paper suggests that:

H_{3b}: *Institutional support positively moderates the relationship between persistence and new venture performance.*

3. Research method

3.1 Sample and data collection

In this paper, a sample of manufacturing new ventures listed in the Ghana Business Directory database (730 firms from a total of 15,200) was randomly selected and contacted to elicit participation in the paper. The sample met the following criteria: (1) respondents were entrepreneurs/owner-managers who had taken part in the inception process of the ventures, (2) the new ventures were founded in 2008 or later; (3) privately owned, manufacturers of goods and (4) ventures employing less than 250 employees as of 2018. We sampled firms that were founded in 2008 or later because the major aim was to select firms not more than 10 years of age

and to capture new ventures. Researchers disagree over what constitutes a new venture (Reynolds & Miller, 1992) in entrepreneurship. However, the first six years of the firm's existence constitutes a crucial period for its development (Shrader, Oviatt, & McDougall, 2000). Accordingly, in the first survey (January 2018), the entrepreneurs of the 730 new ventures were contacted with a questionnaire in person to collect data on regulatory focus, persistence, and perceived institutional support (T1). At the end of T1, a total of 247 useable responses were received, representing a 33.83% response rate.

In the second survey (T2), the finance managers of the 247 firms were approached for additional data on the dependent variables (new venture performance). The second survey was conducted because cross-sectional studies are often associated with common method bias (Podsakoff, MacKenzie, Lee, and Podsakoff, 2003). A total of 207 finance managers provided complete responses to the performance questions. It was detected that 3 of the finance managers were also the founders/entrepreneurs of the firms. As such, these 3 responses were discarded. Thus, 204 matched questionnaires across Times 1 and 2 were used for the analysis. This represents a 27.94% response rate. The average age of the firms in the sample was 10 years old ($SD=7.66$) and employed 45 employees ($SD=11.61$). The average of the respondents was 48 years old. Non-response bias was assessed by comparing early and late respondents in terms of firm age, size, entrepreneur's age, education, founder experience, and gender. The results show no significant difference in these variables. This indicates that non-response bias does not significantly influence the results of the paper (Armstrong & Overton, 1977).

3.2 Measures

All the items were measured on a seven-point Likert scale with anchors 1=strongly disagree to 7=strongly agree.

Regulatory focus. The items measuring regulatory focus were taken from Higgins et al., (2001). In all, six items measured a promotion focus ($\alpha=0.95$) whilst five items measured a prevention focus ($\alpha = 0.93$).

To measure *entrepreneurial persistence*, three items are taken from Baum and Locke's (2004) study ($\alpha = 0.84$). Responses are received from entrepreneurs on a 7-point Likert scale ranging from 1= strongly disagree; 7=strongly agree.

Institutional support ($\alpha = 0.85$) was measured by using a four-item scale developed by Turker and Selcuk (2009) on a 7-point Likert scale ranging from 1=strongly disagree and 7=strongly agree.

New venture performance ($\alpha = 0.87$) was measured by using seven items taken from previous studies (Luk et al., 2008; Sheng, Zhou & Li, 2011). Respondents compared their ventures with industry rivals in the last three years. Responses were received on a seven-point Likert scale with anchors: 1=much worse than competitors; and 7=much better than competitors.

Control variables. Six control variables were used in this study. These are firm size, firm age, founder age, education, entrepreneurial experience, and gender. The firm size was calculated by using the average number of employees in each venture. The firm age variable was calculated as the number of years since the inception of the firms. Founder's age is measured as the number of years, and educational attainment is dummy coded: 1 = "high school", 2 = "higher national diploma," 3="bachelor's degree," 4= "master's degree," 5= "doctoral degree". The entrepreneurial experience was measured by asking the respondents to state the number of previous ventures they have founded (Hmieleski, Corbett & Baron, 2013). Gender was measured with a dummy and was coded 1=if the entrepreneur is a male, 0=if the entrepreneur is a female. Table 1 provides details of the measures used in the current paper.

INSERT TABLE 1 HERE

3.3 Common method variance, validity, and reliability

This paper follows Cote & Buckley (1987) to assess common method variance in the data. Accordingly, a conservative single-method bias is assumed in confirmatory factor analysis (CFA) to test three alternative hierarchically nested measurement models. Table 2 presents a common method bias nested models.

INSERT TABLE 2 HERE

First, a method-only model in Model 1 was estimated. In this model, all indicators loaded on a single latent factor. Second, a trait-only model was examined in Model 2. In this model, each indicator loaded on its respective latent factor. Third, a method and trait model was estimated in Model 3. This model established a common factor linking all the indicators in Model 1 and 2. Finally, all three models are compared to establish whether a common method bias affects the data in this paper. This paper finds that Model 2 and Model 3 are better than Model 1. However, Model 3 is not differentially superior to Model 2. Thus, it was concluded that common method bias did not significantly influence the data (Cote & Buckley, 1987).

Subsequently, the full measurement model is tested with a CFA using LISREL 8.54 with the maximum likelihood estimation approach. The CFA results show that composite reliability, discriminant validity, and alpha reliability of the constructs are acceptable. The results show indices exceeding the minimum threshold of 0.60, 0.50, and 0.70 respectively (Bagozzi & Yi, 2012). Furthermore, it was established the convergent validity of the constructs by inspecting each factor loading. The results show that each factor loading exceeded the suggested cut-off value of 0.40 (Anderson & Gerbing, 1988). This paper further affirms discriminant validity by inspecting the average variances extracted (AVE). The results show that each AVE is greater than the shared

variances between constructs. This shows satisfactory discriminant validity (Fornell & Larcker, 1981). Overall, the fit indexes show that the model fits the data reasonably well ($\chi^2/df=1.23$, GFI = 0.96; RMSEA =0.06; SRMR =0.08; NNFI=0.95; and CFI =0.98).

4. Results

Table 3 presents the means, standard deviations, and correlations for the variables. As indicated in Table 3, a promotion focus orientation is positively related to persistence while a prevention focus orientation is negatively associated with persistence. Besides, persistence is positively related to new venture performance. Tables 4 and 5 present the results of the analyses. A moderated hierarchical regression analysis is employed to test the hypotheses. When evaluating contextual research models, moderated hierarchical regression has been suggested to be appropriate (Cohen et al., 2003). The mean-centering technique was used, and the variance inflation factors (VIF) of all the regression models were inspected to check whether multicollinearity affected the data. Results from the collinearity analysis show that the highest VIF value for the regression models is 2.66 (Table 4) and 2.45 (Table 5). This suggests that multicollinearity did not seriously affect the data (Barringer & Bluedorn, 1999).

INSERT TABLE 3 HERE

Model 1 presents all the control variables. Hypothesis 1a stated that a promotion focus orientation would positively relate to persistence. The results of this hypothesis are presented in Model 2 (Table 4). Results show that a promotion focus orientation positively relates to persistence ($\beta= 0.16, p <0.01$). Thus, Hypothesis 1a is supported. Hypothesis 2a predicted a prevention focus orientation would negatively relate to persistence. Model 2 tests Hypothesis 2a.

Results indicate that, a prevention focus orientation is negatively related to persistence ($\beta = -0.14$, $p < 0.05$). Hence, hypothesis 2a is supported.

INSERT TABLE 4 HERE

Hypothesis 1b proposes that the positive influence of a promotion focus orientation on persistence would be positively moderated by perceived institutional support. As revealed in Model 3 (Table 4), the influence of a promotion focus orientation on persistence is amplified when institutional support is greater ($\beta = 0.32$, $p < 0.01$). Thus, the results support Hypothesis 1b. To enhance interpretation of this finding, Cohen et al.s' (2003) approach were followed to plot the interactions at ± 1 s.d. As Figure 2 shows, the interaction between promotion focus orientation and perceived institutional support enhances entrepreneurs' persistence.

Hypothesis 2b states that the negative relationship between entrepreneurs' prevention focus orientation and persistence would be positive when institutional support is greater. In Model 4 (Table 5), institutional support moderates the relation between prevention focus and persistence, such that when institutional support is greater, the negative influence of a prevention focus orientation on persistence is positive ($\beta = 0.13$, $p < 0.05$). Figure 3 shows that the negative relationship between a prevention focus orientation and persistence is positive when entrepreneurs perceive stronger, as opposed to those with weak institutional support. Therefore, hypothesis 2b receives support.

INSERT TABLE 5 HERE

Hypothesis 3a predicts that persistence would positively relate to new venture performance. Model 5 (Table 5) shows a positive and significant effect of persistence on new venture performance ($\beta = 0.14$, $p < 0.05$). Therefore, this result supports Hypothesis 3a. Hypothesis 3b states that the positive effect of persistence on new venture performance would be enhanced

when institutional support is greater. In support of this hypothesis, the results reveal that the effect of persistence on new venture performance is amplified when institutional support is high ($\beta = 0.41, p < 0.01$). As Figure 4 illustrates, the interaction between persistence and institutional support enhances new venture performance.

INSERT FIGURE 2 HERE

4.1 Tests for mediation

To test the prediction that persistence mediates the relationship between regulatory focus (promotion and prevention) and new venture performance, this paper follows Baron & Kenny (1986) approach to establish three main mediation conditions. First, it was established that the independent variables relate to the dependent (new venture performance) variable and the mediating variable. Second, the mediating variable predicts the dependent variable, and third, the influence of the independent variables on the dependent variable is attenuated when the mediation variable is included in the regression equation. To establish full mediation, the independent variable should not have a significant influence on the dependent variable when the mediating variable is included. Also, partial mediation is established if the impact of the independent variable is attenuated but remains significant.

INSERT FIGURE 3

To establish the mediation effect in this paper, first, the effects of the independent variables on the dependent variable were examined as well as the influence of the independent variables on the mediating variable. As shown in Model 3 and Model 4 (Table 5), the interaction of institutional support and promotion focus significantly affects new venture performance ($\beta = 0.37, p < 0.01$) and the effect of the interaction of institutional support and prevention focus were

marginally significant ($\beta = -0.11, p < 0.10$). Besides, in Model 3 and 4 (Table 4), the interaction of institutional support and promotion focus significantly influences new venture performance ($\beta = 0.32, p < 0.01$). Moreover, the interaction of institutional support and prevention focus influences new venture performance ($\beta = 0.13, p < 0.05$). Second, as shown in Model 4 (Table 5) in the interaction of institutional support and persistence significantly influences new venture performance ($\beta = 0.41, p < 0.01$). Third, as shown in Model 6 (Table 5), the coefficients for the effects of promotion and prevention focus on new venture performance are insignificant with the introduction of persistence into the regression equation (promotion focus = 0.02; *n.s* in Model 5) and prevention focus (-0.01 *n.s* in Model 5) respectively. Hence, persistence fully mediates the positive relationship between regulatory focus and new venture performance in this paper.

INSERT FIGURE 4 HERE

To test the robustness of the mediation models, this paper uses the Sobel (1982) test. According to this test, to establish full mediation, it is crucial to calculate the potency of the unstandardized indirect influence and its related standard error. In this paper, the Sobel test shows that the indirect influence of promotion focus (Sobel statistic = 1.45 $p < 0.01$) and (Sobel statistic = 1.24 $p < .01$) for prevention focus on new venture performance respectively. Results provide additional support for full mediation.

5. Discussion and implications

This paper derives insights from regulatory focus theory to develop and test an empirical model suggesting that regulatory focus affects entrepreneurs' level of persistence and that persistence, in turn, drives new venture performance. Also, using arguments from the institutional theory, this paper investigates the potential moderating role of institutional support in these

relationships. This inquiry offers crucial research questions to address in the entrepreneurship literature: (1) *How does an entrepreneur's chronic regulatory focus affect persistence.* (2) *How does persistence affect the firm-level outcome?* (3) *How does institutional support moderate these relationships?*

The results from the paper show that entrepreneurs' level of promotion focus positively relates to persistence whilst a prevention focus negatively affects persistence. Besides, persistence drives new venture performance. Furthermore, levels of institutional support moderate the effect of entrepreneurs' regulatory focus on persistence as well as the effect of persistence on new venture performance. Specifically, this paper finds that when entrepreneurs perceive the business environment to be supportive of entrepreneurship, the positive impact of promotion focus on persistence is amplified. Again, this paper finds that the negative effect of a prevention focus orientation on persistence is positive when institutional support is greater. Finally, the paper finds that under conditions of a supportive business environment, the relationship between persistence and performance is enhanced. Overall, these results show that regulatory foci (both promotion and prevention) relate to important aspects of entrepreneurship. This result is consistent with extant regulatory focus research (e.g., Wallace et al., 2010). However, such effects are mediated by intervening variables (e.g., persistence). Thus, in this paper, persistence is found to mediate the link between regulatory foci and new venture performance.

These findings offer several theoretical contributions to the regulatory focus and entrepreneurship literature. First, the finding that a promotion focus orientation of entrepreneurs positively relates to persistence and that entrepreneurs' level of prevention focus negatively affects persistence contribute to entrepreneurship studies that examine how individuals'

psychological and personality characteristics affect entrepreneurs' trait (e.g., Adomako et al., 2016; Cardon & Kirk, 2015; Holland & Shepherd, 2013). While these studies explore the drivers of persistence, they do not investigate how self-regulation may play a role to persist in the entrepreneurial process.

Second, these findings contribute to regulatory focus literature. Specifically, this research enhances scholarly knowledge on how self-regulation could help explain entrepreneurial decision-making. Unlike previous entrepreneurship studies (e.g., Bryant, 2009; Hmieleski & Baron, 2008; McMullen & Shepherd, 2002), this paper focuses explicitly on entrepreneurial persistence in new ventures. This extension is important as it investigates the potential influence of regulatory foci on entrepreneurial persistence and its eventual outcomes.

Third, the findings of the paper broaden self-regulation literature by adding institutional context as a moderating variable. This paper complements previous regulatory focus studies in entrepreneurship (Hmieleski & Baron, 2008; Bryant, 2009) by investigating the interaction between institutional context and regulatory foci. By integrating institutional theory with regulatory focus theory, this paper offers a fresh perspective on the joint interaction effects on an entrepreneurial trait such as persistence. While prior entrepreneurship research has examined both mechanisms in separation, this paper provides an integrated perspective. The findings are consistent with the cognitive perspective which suggests that entrepreneurs' cognitive strategies affect entrepreneurial decision-making (e.g., Grégoire, Corbett & McMullen, 2011; Mitchell et al., 2007). Moreover, unlike previous studies that assume linear effects of regulatory foci on entrepreneurial behavior (e.g., Bryant, 2009), this paper shows the interaction of individuals' regulatory foci and institutional context.

Fourth, this paper helps clarify the potential role of persistence in entrepreneurship. That

is, the results offer empirical evidence for the relationship between persistence and new venture performance. Such a relationship has often been suggested in prior entrepreneurship research (e.g., Baum & Locke, 2004), however, to date, the performance benefit of this individual attribute is under-researched. Also, this paper extends prior studies on entrepreneurial persistence (e.g., Adomako et al., 2016; Baum & Locke, 2004; Cardon & Kirk, 2015; Holland & Shepherd, 2013) by incorporating institutional context as a moderating variable.

Lastly, this paper enhances scholarly knowledge on the complex processes through which psychological characteristics and personality variables such as regulatory focus and persistence ultimately influence venture performance. An understanding of these complex processes has been identified as a crucial task in entrepreneurship studies (e.g., Baron & Tang, 2011; Baum and Locke, 2004). The findings from this paper contribute to progress on these efforts by including two relevant individual-level variables (i.e. regulatory foci and persistence) that positively relate to new venture success.

The findings hold practical implications for entrepreneurs. First, this paper supports previous practical implications indicating self-regulatory skills are important for improving entrepreneurship education and training (e.g., Bryant, 2009; Tumasjan & Braun, 2012). For example, to increase persistence in entrepreneurship, trainers and policymakers may wish to pay much attention to efforts such as promotion focus-enhancing techniques (Bryant, 2007). Indeed, research in psychology suggests that individuals can choose to use a certain regulatory focus irrespective of their chronic orientation (Crowe & Higgins, 1997; Friedman & Foerster, 2001). Therefore, training could be offered to entrepreneurs to adhere to situational schemata oriented toward promotion goals.

Second, this paper offers direction to entrepreneurs as to how to improve performance in

their new ventures. Results from this paper show that when entrepreneurs exhibit persistence, their efforts will yield successful performance outcomes. The implication is that persistence can yield significant financial gains for firms whose founders persist in the entrepreneurial process. Again, this paper suggests that to reap substantial benefits from being persistent, entrepreneurs should look at the institutional context in which they operate. Thus, the implication is that institutional context boosts the effect of persistence on performance.

6. Limitations and direction for future research

Despite the important contributions, this paper has some limitations. First, persistence is not observed or measured directly in this paper but is only used as a self-reporting variable that captures an individual's tendency to persist. Thus, this limitation must be taken into consideration when interpreting the results. Second, this paper is limited to new ventures in the manufacturing sector of the Ghanaian economy. Future studies should, therefore, compare the study's results across different sectors and countries in sub-Saharan Africa. This option is crucial as it may offer an avenue to investigate whether the constructs used in this paper are driven by varying institutional contexts. Third, this paper focuses on surviving firms. Whilst there is no reason to think that survivorship bias affects the results, future studies may wish to look at ways to deal with survivorship bias. Fourth, the items measuring institutional support are insufficient, as issues such as the rule of law, property rights, etc. were not captured in the questionnaire. Future studies should include these items in measuring institutional support. Finally, this paper uses self-reported perceptual measures of new venture performance which could introduce respondent bias. Future research may use objective financial data to measure performance.

7. Conclusion

This paper draws from regulatory focus and institutional theories to investigate the influence of entrepreneurs' regulatory foci on persistence and untimely new venture performance. This paper used data from 204 new manufacturing ventures operating in Ghana to the research model. This paper finds that entrepreneurs' regulatory foci influence persistence which ultimately affects new venture performance. Specifically, this paper reveals that persistence mediates the link between regulatory foci and new venture performance. Also, this paper suggests that institutional context moderates the influence of regulatory foci on persistence. Moreover, the effect of entrepreneurial persistence on new venture success is positively moderated by perceived institutional support. It is hoped that these findings will encourage further scholarly efforts geared toward understanding the influence of entrepreneurial characteristics on firm-level outcomes such as new venture success.

References

- Acheampong G (2018) Financial institution ties and survival of small commercial poultry farms (SCPFs) in Ghana. *Journal of Entrepreneurship in Emerging Economies* 10(2): 178-190.
- Acheampong G, Narteh B, and Rand J (2017) Network ties and survival: a study of small commercial poultry farms in Ghana. *International Journal of Entrepreneurship and Innovation* 18(1): 14-24.
- Acquaah, M. (2007). "Managerial social capital, strategic orientation and organizational performance in an emerging economy". *Strategic Management Journal*, Vol. 28, Iss. 12, pp. 235-255
- Adomako, S., Opoku, R. A., & Frimpong, K. (2017). The moderating influence of competitive intensity on the relationship between CEOs' regulatory foci and SME internationalization. *Journal of International Management*, 23(3), 268-278.
- Adomako, S., Danso, A., Uddin, M., and Damoah, J. O. (2016). "Entrepreneurs' optimism, cognitive style and persistence". *International Journal of Entrepreneurial Behaviour & Research*, Vol. 22, Iss.1, pp.84-108.
- Anderson, J. C., and Gerbing, D. W. (1988). "Structural equation modeling in practice: A review and recommended two-step approach". *Psychology Bulletin*, Vol. 103, pp. 411-423.
- Armstrong, J. S., and Overton, T. (1977). "Estimating non-response bias in mail surveys". *Journal of Marketing Research*, Issue 14, Iss. 3, pp.396-402.
- Baas, M., De Dreu, C.K.W., and Nijstad, B.A. (2011). "When prevention promotes creativity: the role of mood, regulatory focus and regulatory closure". *Journal of Personality and Social Psychology*, Vol. 100, Iss. 5, pp. 794-809.
- Bagozzi, R.P., and Yi, Y. (2012). "On the evaluation of structural equation models". *Journal of*

- the Academy of Marketing Science Vol.14, Iss. 1, pp33-46.
- Barringer, B. R., and Bluedorn, A. C. (1999). "The relationship between corporate entrepreneurship and strategic management". *Strategic Management Journal*, 20(5): 421-444.
- Baron, R. M., and Kenny, D. A. (1986). "The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations". *Journal of personality and social psychology*, 51(6), 1173.
- Baron, R. A., and Tang, J. (2011). "The role of entrepreneurs in firm-level innovation: Joint effects of positive affect, creativity, and environmental dynamism". *Journal of Business Venturing*, Vol.,26, Iss.1, pp.49-60.
- Baum, J. R., and Locke, E. A. (2004). "The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth". *Journal of applied psychology*, 89(4), 587.
- Blau, P. M. (1964). *Exchange and power in social life*. New York: Wiley
- Brockner, J., and Higgins, E. T. (2001). "Regulatory focus theory: Implications for the study of emotions at work". *Organizational Behaviour and Human Decision Processes*, Vol. 86, Iss.1, pp.35-66.
- Bryant, P. (2009). "Self-regulation and moral awareness among entrepreneurs". *Journal of Business Venturing*. Vol. 24, Iss. 5, pp.505–518.
- Cable, D. M., and Parsons, C. K. (2001). "Socialization tactics and person-organization Fit". *Personnel Psychology*, 54(1), 1-23.
- Carpenter, M.A., Geletkanycz, M.A. and Sanders, W.G. (2004). "Upper echelons research revisited: antecedents, elements, and consequences of top management team composition", *Journal of Management*, 30(6): 749-778.
- Cardon, M. S., and Kirk, C. P. (2015). "Entrepreneurial passion as mediator of the self-efficacy to persistence relationship". *Entrepreneurship theory and practice*, 39(5), 1027-1050.
- Cohen, J., Cohen, P., West, S.G. and Aiken, L.S., (2003). *Applied Multiple Regression/Correlation Analysis for the Behavioural Sciences*, 3rd Ed. Lawrence Erlbaum, New Jersey.
- Cote, J. A., and Buckley, M. R. (1987). "Estimating trait, method, and error variance: Generalizing across 70 construct validation studies". *Journal of Marketing Research*, 23(3), 315-318.
- Crowe, E., and Higgins, E.T., (1997). "Regulatory focus and strategic inclinations: promotion and prevention in decision-making". *Organizational Behaviour and Human Decision Process*, 69 (2), 117–132.
- DeTienne, D.R., Shepherd, D.A., and De Castro, J.O. (2008). "The fallacy of "only the strong survive": The effects of extrinsic motivation on the persistence decisions for under-performing firms". *Journal of Business Venturing*, 23(5), 528–546.
- Finkelstein, S., Hambrick, D. C. and Cannella, A. A. (2009). *Strategic Leadership: Theory and Research on Executives, Top Management teams, and Boards*. New York: Oxford University Press, USA.
- Fornell, C and Larcker, D.F. (1981). "Evaluating structural equation models with unobservable variables and measurement error". *Journal of Marketing Research* 18(1), 39-50
- Friedman, R.S and Foerster, J., (2001). "The effects of promotion and prevention cues on Creativity". *Journal of Personality and Social Psychology* 81, 1001–1013.
- Gimeno, J., Folta, T.B., Cooper, A.C., and Woo, C.Y. (1997). "Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms". *Administrative Science Quarterly*, 42(4), 750–783.
- Grégoire, D. A., Corbett, A. C., and McMullen, J. S. (2011). "The cognitive perspective in entrepreneurship: An agenda for future research". *Journal of Management Studies*, 48(6), 1443-1477.
- Hambrick, D. C. (2007). "Upper echelons theory: An update". *Academy of management review*, 32(2), 334-343.
- Hambrick, D.C. and Mason, P.A. (1984). "Upper echelons: the organization as a reflection of its

- top managers”, *Academy of Management Review*, 9(2), 193-206.
- Higgins, E. T. (1997). “Beyond pleasure and pain”. *American psychologist*, 52(12), 1280-1300.
- Higgins, E. T. (1998). “Promotion and prevention: Regulatory focus as a motivational Principle”. *Advances in experimental social psychology*, 30, 1-46.
- Higgins, E. T. (2000). “Making a good decision: value from fit”. *American psychologist*, 55(11), 1217.
- Higgins, E.T., Friedman, R.S., Harlow, R.E., Idson, L.C., Ayduk, O.N., and Taylor, A. (2001). “Achievement orientations from subjective histories of success: promotion pride versus prevention pride”. *European Journal of Social Psychology*, 31(1), 3-23.
- Hinson, R. and Sorensen, O. (2006). “E-business and small Ghanaian exporters”. *Online Information Review*, 30(2), 116 - 138
- Hmieleski, K.M., and Baron, R.A., (2008). “Regulatory focus and new venture performance: a study of entrepreneurial opportunity exploitation under conditions of risk versus uncertainty”. *Strategic Entrepreneurship Journal*. 2 (4), 285–299.
- Hmieleski, K. M., Corbett, A. C., and Baron, R. A. (2013). “Entrepreneurs’ improvisational behavior and firm performance: A study of dispositional and environmental moderators”. *Strategic Entrepreneurship Journal*, 7(2), 138-150.
- Holland, D. V. and Shepherd, D. A. (2013). “Deciding to persist: Adversity, values, and entrepreneurs’ decision policies”. *Entrepreneurship Theory and Practice*, Vol. 37, Iss.2 pp.331- 358.
- Idson, L.C., Liberman, N., and Higgins, E.T., (2000). “Distinguishing gains from nonlosses and losses from nongains: A regulatory focus perspective on hedonic intensity. *Journal of Experimental Social Psychology*”, 36 (3), 252–274.
- Justo, R., DeTienne, D. R., & Sieger, P. (2015). Failure or voluntary exit? Reassessing the female underperformance hypothesis. *Journal of Business Venturing*, 30(6), 775-792.
- Klapper, L., Laeven, L., & Rajan, R. (2006). Entry regulation as a barrier to entrepreneurship. *Journal of Financial Economics*, 82(3), 591–629.
- Lanaj, K., Chang, C. H., and Johnson, R. E. (2012). “Regulatory focus and work-related outcomes: A review and meta-analysis”. *Psychological Bulletin*, 138 (5), 998–1034.
- Liberman, N., Idson, L. C., Camacho, C. J. and Higgins, E. T. (1999). “Promotion and prevention choices between stability and change”. *Journal of Personality and Social Psychology*, 77(6): 1135-1145.
- Liberman, N., Idson, C.I., Chamacho, C.J., and Higgins, E.T., (1999). “Promotion and prevention choices between stability and change”. *Journal of Personality and Social Psychology* 77, 1135–1145.
- Luk, C. L., Yau, O. H., Sin, L. Y., Tse, A. C., Chow, R. P. and Lee, J. S. (2008). “The effects of social capital and organisational innovativeness in different institutional contexts”. *Journal of International Business Studies*, 39(4), 589-612.
- March JG and Shapira Z (1987) Managerial perspectives on risk and risk taking. *Management Science* 33(11): 1404–1418.
- Markman, G.D., Baron, R.A., and Balkin, D.B. (2005). “Are perseverance and self-efficacy costless? Assessing entrepreneurs’ regretful thinking”. *Journal of Organisational Behavior*, 26(1), 1–19.
- McGrath, R.G. (1999). “Fall forward: Real options reasoning and entrepreneurial failure”. *Academy of Management Review*, Vol. 24, Iss. 1, pp.13–30.
- McMullen, J.S., and Shepherd, D.A., (2002). “Regulatory focus and entrepreneurial intention: action bias in the recognition and evaluation of opportunities”. In: Bygrave, W.D., et al. (Ed.), *Frontiers of Entrepreneurship Research*. Babson College, Babson Park.
- Mitchell, R.K., Busenitz, L.W., Bird, B., Gaglio, C.M., McMullen, J.S., Morse, E.A., Smith,

- J.B., (2007). "The central question in entrepreneurial cognition research". *Entrepreneurship Theory & Practice* Vol. 31, pp.1–27.
- Morgan, N., Kaleka, A. and Katsikeas, C. (2004). "Antecedents of export venture performance: a theoretical model and empirical assessment", *Journal of Marketing*, Vol., 68, Iss.1, pp.90-108.
- North, D. (1990), *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- North, D. (2005). *Understanding the Process of Economic Change*. Princeton, NJ: Princeton University Press.
- Ping R.A. (2004). "On assuring valid measures for theoretical methods using survey data". *Journal of Business Research*, Vol.,57, pp.125-141
- Podsakoff, P.M., MacKenzie, S.B., Jeong-Yeon, L. and Podsakoff, N.P. (2003). "Common method biases in behavioral research: A critical review of the literature and recommended remedies". *Journal of Applied Psychology* Vol. 88, Iss. 5, pp. 879-903.
- Reynolds, P.D. & Miller, B. (1992). New firm gestation: Conception, birth and implications for research. *Journal of Business Venturing*, 7(5), 405–418.
- Shrader, R.C., Oviatt, B.M., & McDougall, P.P. (2000). How new ventures exploit trade-offs among international risk factors: Lessons for the accelerated internationalization of the 21st century. *Academy of Management Journal*, 43(6), 1227–1247.
- Tumasjan, A., and Braun, R. (2012). "In the eye of the beholder: how regulatory focus and self-efficacy interact in influencing opportunity recognition". *Journal of Business Venturing*, Vol.27, Iss. 6, pp.622–636.
- Turker, D. and Selçuk, S.S. (2009). "Which factors affect entrepreneurial intention of university students?". *Journal of European industrial training*, Vol. 33, Iss. 2, pp.142-159.
- Saeed, S., Yousafzai, S. Y., Yani-De-Soriano and Muffatto, M. (2015). "The role of perceived university support in the formation of students' entrepreneurial intention". *Journal of Small Business Management*, 53(4), 1127-1145.
- Shane, S., Locke, E. A. and Collins, C. J. (2003). "Entrepreneurial motivation". *Human resource Management Review*, Vol. 13, Issu. 2, pp.257-279.
- Sheng, S., Zhou, K. Z., and Li, J. J. (2011). "The effects of business and political ties on firm performance: Evidence from China". *Journal of Marketing*, Vol. 75, Issu. 1, pp.1-15.
- Sobel, M. E. (1982). "Asymptotic confidence intervals for indirect effects in structural equation Models". *Sociological methodology*, 13, 290-312.
- Sutcliffe, K.M. and Vogus, T.J. (2003). Organising for resilience. In K.S. Cameron, J.E. Dutton, & R.E. Quinn (Eds.), *Positive organisational scholarship* (pp. 94–110). San Francisco: Berrett-Koehler Publishers.
- Wallace, J.C., Little, L.M., Hill, A.D., and Ridge, J.W., (2010). "CEO regulatory foci, environmental dynamism, and small firm performance". *Journal of Small Business Management*. Vol. 48, Iss. 4, pp.580–604.
- Wiklund, J. and Shepherd, D. A. (2011). "Where to From Here? EO-as-Experimentation, Failure, and Distribution of Outcomes". *Entrepreneurship Theory and Practice*, Vol. 35, pp.925–946.
- Wu, S., Matthews, L., and Dagher, G.K. (2007). "Need for achievement, business goals, and entrepreneurial persistence". *Management Research News*, Vol. 30, Iss. 12, pp.928–941.
- Youssef, C.M. and Luthans, F. (2007). "Positive organisational behavior in the workplace: The impact of hope, optimism, and resilience". *Journal of Management*, Vol. 33, Iss. 5, pp. 774–800.
- Zhu, F., Burmeister-Lamp, K., & Hsu, D. K. (2017). To leave or not? The impact of family support and cognitive appraisals on venture exit intention. *International Journal of Entrepreneurial Behavior & Research*, 23(3), 566-590.

Zhu, F., Hsu, D. K., Burmeister-Lamp, K., & Fan, S. X. (2018). An investigation of entrepreneurs' venture persistence decision: The contingency effect of psychological ownership and adversity. *Applied Psychology*, 67(1), 136-170.

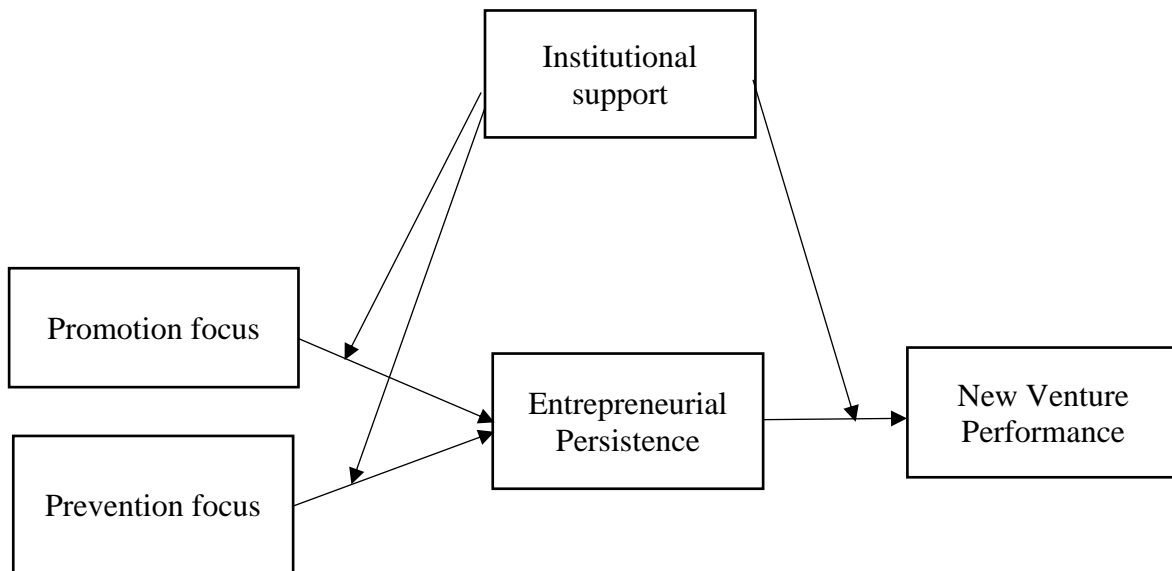


Figure 1. Conceptual model of the study

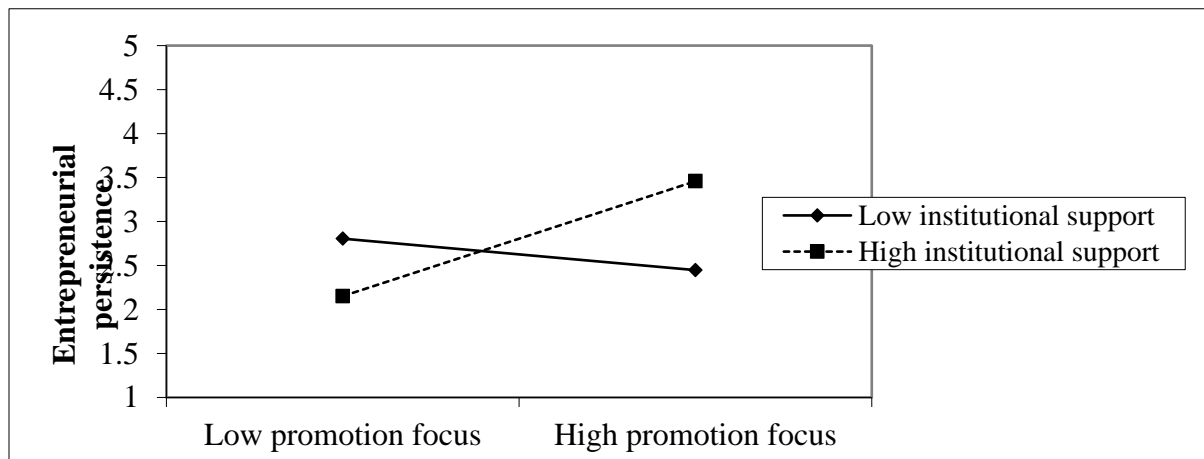


Figure 2. Interaction of promotion focus, and institutional support on entrepreneurial persistence

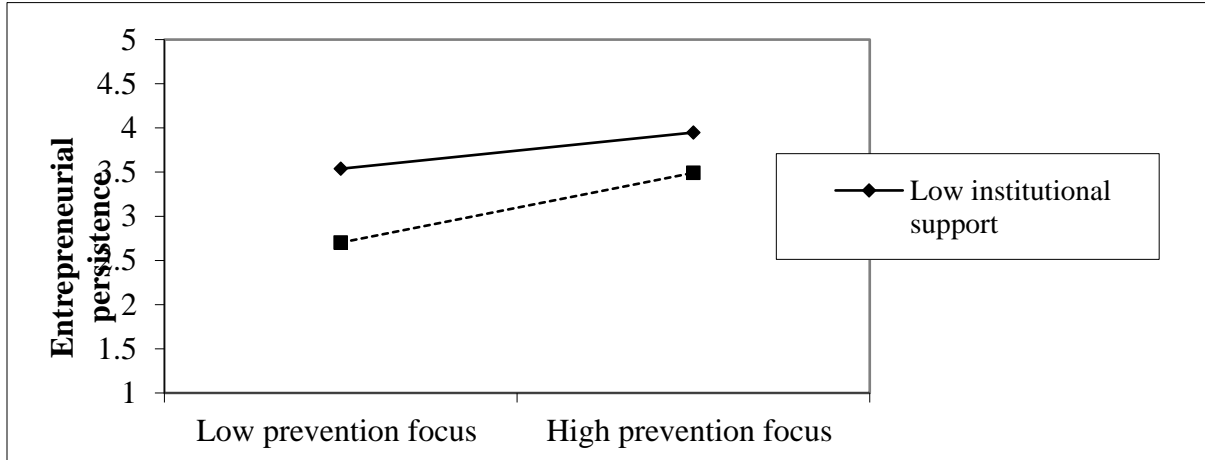


Figure 3
Interaction of prevention focus, and institutional support on entrepreneurial persistence

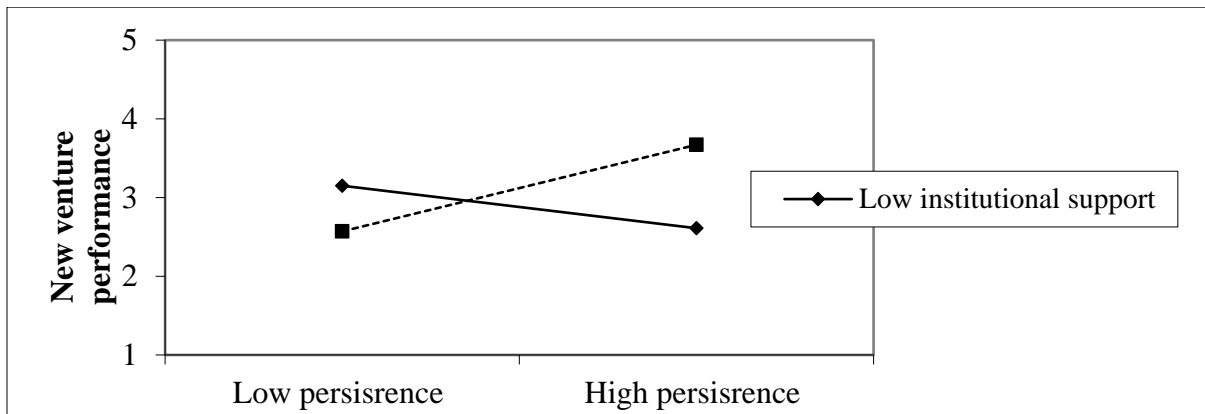


Figure 4
Interaction of persistence, and institutional support on new venture performance

Table 1 Constructs, Measurement Items and Reliability and Validity Tests

Item description	Loadings (t-values)
Promotion focus (Higgins et al. 2001): $\alpha=0.95$; CR=0.91; AVE=0.62	
- Compared to most people, I am typically unable to get what I want out of life*	0.87(fixed)
- I often accomplished things that got me “psyched” to work even harder	0.88 (15.52)
- I often do well at different things that you try	0.89 (13.13)

- When it comes to achieving things that are important to me, I find that I don't perform as well as I ideally would like to do*	0.93 (11.27)
- I feel like I have made progress toward being successful in my life.	0.78 (10.52)
- I have found hobbies or activities in my life that capture my interest or motivate me to put effort into them.	0.78 (9.88)
Prevention focus (Higgins et al. 2001): $\alpha=0.93$; CR=0.89; AVE=0.71	
- Growing up, I would ever "cross the line" by doing things that my parents/guardian would not tolerate*	0.91(fixed)
- I did get on with my parents'/guardian's nerves often when I was growing up*	0.93 (24.11)
- I often did obey rules and regulations that were established by my parents/guardian	0.85 (18.70)
-Growing up, I did act in ways that my parents/guardian thought were objectionable*	0.82(19.22)
-Not being careful enough has gotten me into troubles at times*	0.87(16.34)
Institutional support (Turker & Selçuk, 2009): $\alpha=0.85$; CR=0.87; AVE=0.54	
- In Ghana, entrepreneurs are encouraged and supported by institutions	0.88 (fixed)
- The Ghanaian economy provides many opportunities for entrepreneurs	0.89 (17.38)
- Taking bank loans is quite difficult for entrepreneurs in Ghana (*)	0.85 (19.18)
- Ghanaian state laws are averse to running a business (*)	0.73 (13.19)
Entrepreneurial persistence (Baum & Locke): $\alpha = 0.84$; CR = 0.81; AVE = 0.63	
-I continue to work on hard projects even when others oppose me	0.88 (fixed)
-I can think of many times when I persisted with work when others quit	0.71 (16.08)
-No matter how challenging my work is, I will not give up	0.83 (12.26)
New venture performance (Luk et al., 2008; Sheng, Zhou & Li, 2011): $\alpha=0.87$; CR=0.85; AVE=0.68	
-Profitability	0.95(fixed)
-Profit margins	0.91 (19.23)
-Return on investment	0.83 (15.09)
-Market share	0.85(16.20)
-Return on asset	0.78(9.62)
-Profitability growth	0.91(13.59)
-Sales growth	0.82(22.05)

*Items marked with an asterisk are reversed; CR=composite reliability; AVE=Average variance extracted

Table2: Common Method Bias Nested Models: Goodness-of-fit Statistics

Model	χ^2	df	χ^2/df	RMSEA	CFI	NNFI
M1: Method	9208.05***	1740	5.29	0.14	0.55	0.29
M2: Trait	1325.46***	879	1.51	0.04	0.96	0.94
M3: Trait-method	1305.22***	1061	1.23	0.03	0.98	0.96

*** $p < .001$. df =degrees of freedom; RMSEA =root mean square error of approximation; CFI =comparative fit index; NNFI =non-normed fit index.

Table 3. Descriptive Statistics and Correlations (Square Roots of AVE in Diagonal)

	Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11
1.	Firm size	8.12	12.35											
2.	Firm age	8.66	6.87	-0.01										
3.	Founder's age	48.18	10.24	-0.04	-0.11									
4.	Education	2.27	1.14	0.00	0.07	0.09								
5.	Prior experience	0.97	1.28	0.07	-0.02	0.11	0.12							
6.	Gender	0.82	0.41	0.02	0.01	0.08	0.06	0.10						
7.	Promotion focus	4.46	0.95	0.08	-0.10	0.37**	0.38**	0.14**	0.26**	(0.78)				
8.	Prevention focus	3.61	1.40	-0.04	0.03	.18*	-0.00	-0.08	0.17**	0.03	(0.84)			
9.	Institutional support	5.41	0.93	-0.05	0.05	0.02	0.03	0.03	0.01	-0.02	-0.04	(0.73)		
10.	Persistence	5.22	0.85	-0.22**	0.03	0.26**	0.31**	0.27**	0.23**	0.13**	-0.19**	-0.04	(0.79)	
11.	New venture performance	4.54	1.38	-0.10	-0.04	0.32**	0.28**	0.39**	0.37**	0.28**	-0.22**	0.08	0.15*	(0.82)

N = 204; *p<0.05; **p<.01 (2-tailed test); S.D. = Standard Deviation

Table 4. Results of the moderation effect of regulatory focus and institutional support on persistence

Variables	Dependent variable: Persistence (N =204)			
	Model 1	Model 2	Model 3	Model 4
<i>Control variables</i>				
Firm size	-0.05	-0.06	-0.06	-0.06
Firm age	-0.02	-0.04	-0.05	-0.05
Founder's age	-0.18***	-0.17***	-0.19***	-0.22***
Education	-0.03	-0.04	-0.04	-0.05
Prior experience	0.09*	0.12*	0.14**	0.16***
Gender	0.01	0.02	0.01	0.02
<i>Direct effects</i>				
H1a: Promotion focus (ProF)		0.16***	0.17***	0.17***
H2a: Prevention focus (PreF)		-0.14**	-0.14**	-0.13**
Institutional support (IS)		0.07*	0.09*	0.10*
<i>Moderating effects</i>				
H1b: ProF x IS			0.32***	
H2b: PreF x IS				0.13**
F-value	2.2*	5.5***	6.7***	5.62***
R ²	0.14	0.22	0.30	0.33
ΔR ²	-	0.08	0.08	0.03

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Critical t-values are 2.325, 1.645 and 1.282 respectively (one-tailed test as all hypotheses are one-direction)

Table 5. Results of moderated mediation analysis

Variables	Dependent variable: New venture performance (N =204)					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Firm size	-0.04	-0.04	-0.03	-0.04	-0.04	-0.05
Firm age	0.08*	0.02	0.01	0.08*	0.11*	0.09*
Entrepreneur's age	-0.14**	-0.07*	-0.09*	-0.10*	-0.11*	-0.13**
Education	0.02	0.06*	-0.08*	-0.09*	-0.10*	-0.14**
Prior experience	0.05	0.05	0.05	0.04	0.04	0.05
Gender	0.09*	0.12*	0.13**	0.13**	0.13**	0.13**
Promotion focus (ProF)		0.18***	0.22***	0.19** *	0.02	0.19***
Prevention focus (PreF)		-0.13**	-0.13**	-0.13**	-0.01	-0.13**
Institutional support (IS)		0.12*	0.11*	0.11*	0.11*	0.12*
ProF x IS			0.37***			0.04
PreF x IS				-0.11*		-0.05
H _{3a} : Entrepreneurial persistence (EP)					0.14**	0.14**
H _{3b} : EP x IS						0.41***
F-value	1.4	3.8***	6.2***	7.1***	8.1***	8.8***
R ²	0.15	0.21	0.30	0.34	0.35	0.37
ΔR ²	-	0.06	0.09	0.04	0.02	0.02

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Critical t-values are 2.325, 1.645 and 1.282 respectively (one-tailed test as all hypotheses are one-direction).