

Uncovering the unseen passion: A fire to foster ambition towards innovation

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Abstract

Innovativeness can contribute to the growth of enterprises by discovering and exploring new ideas and experimentation, but it cannot be successful unless the ambition is changed to the action through the individual's passion and their resources. Therefore, this study aimed to uncover the role of entrepreneurial passion and resources on innovativeness under different entrepreneurial commitment level and unpredictable environmental. A sample of 112 owners/managers were selected using two level multi-stage sampling. The data were analyzed using descriptive and hierarchical regression analysis. The finding of the study indicates that the owners/managers who are passionate and have adequate human and financial capital are involved more on innovativeness. The commitment among passionate and resourceful owners/managers raises a fire on the individuals to be more innovative, but the strong entrepreneurial passion and resources faced challenges in the unpredictable environment to change the ambition to actions. Therefore, the policy makers should develop sustainable strategies that help in discovering and exploiting business opportunities and resources to encourage passionate firms towards innovativeness. Finally, the future research should include the financial measures or financial resources and other variables such as entrepreneurial intention and entrepreneurial background in a cross country study.

Key words: Passion, Innovativeness, Resources, Commitment, Unpredictability

1. Introduction

The most important element of an entrepreneurial personality is innovativeness (Carland et al., 1984) because innovation is not only about construct representing the creation of new ventures, but also the growth of current enterprises (Gozukara & Colakoglu, 2016). Innovativeness is the firm's propensity to engage in new idea generation, experimentation, and research and

development activities (Lumpkin and Dess, 1996). Mueller and Thomas (2001) have described innovativeness as a significant precursor of entrepreneurial behavior, while Schumpeter (1990) further explains innovation as a significant entrepreneurial precursor and entrepreneur as an innovator (Gozukara & Colakoglu, 2016).

Scholars have recently focused on the role affect and emotion play in entrepreneurship (e.g. Baron, 2008), and in particular have noted that entrepreneurial passion may be an important construct in need of more careful study (Cardon, 2008; Cardon et al., 2009). A growing volume of research indicates that entrepreneurial passion – which involves intense positive emotions and a meaningful identity connection – is central to the entrepreneurial experience and venture-related outcomes (Huyghe et al., 2016). Passion research is burgeoning as more and more studies emerge that investigate the role of this construct in entrepreneurship (Murnieks et al., 2016). Murnieks et al., (2011) draw from the work of these groups to define entrepreneurial passion as a strong inclination towards enjoyable, important activities related to being an entrepreneur.

The core argument of Biraglia and Kadile, (2017) work is built on the premise that the passion for entrepreneurial activities, such as exploring new market ideas, sourcing founding capital, and establishing and developing new products (Cardon et al. 2009; Cardon et al. 2013), can lead individuals to become entrepreneurs. Therefore, Passion is important in entrepreneurship because it can “fuel motivation, enhance mental activity, and provide meaning to everyday work” (Cardon, 2008). Passion is needed as a means to achieve high levels of performance and to overcome barriers to change (Ismail et al., 2016). As a result, interest in entrepreneurial passion is growing because passion has been demonstrated to drive the tenacious pursuit of goals and to inspire stakeholders to support ventures (Murnieks et al., 2016). Moreover, Passion can foster creativity and the recognition of new information patterns critical to the discovery and exploitation of promising opportunities (Baron, 2008; Sundararajan and Peters, 2007).

Cardon et al. (2009) distinguish three different types of entrepreneurial passion. Passion for *inventing* reflects entrepreneurs’ passion for activities related to identifying, inventing, and exploring new opportunities and includes the search for business opportunities in new markets for existed firms. Passion for *developing* reflects their passion for activities related to nurturing, growing, and expanding the venture after its founding, while passion for *founding* reflects entrepreneurs’ passion for activities involved in establishing a venture for commercializing and

exploiting opportunities. Since our research considers the owners/managers of established small firms, passion for founding is excluded.

The aim of this paper is to uncover the level of entrepreneurial passion influence on small firm's owners/managers innovativeness with consideration of their commitment level and unpredictable environment. It also investigates the influence of entrepreneurial resources on innovativeness under the above circumstances. Many authors measured entrepreneurial passion and innovativeness for individuals who are not started their business. Therefore, this paper is among the first to measure the entrepreneurial passion and innovativeness for firm owners/managers of established firms.

The study makes many contributions to the fields of innovativeness, entrepreneurial passion, and resources. By uncovering the influence of passion and resources on innovativeness, the study brings a new insight on the relationship between entrepreneurial passion, entrepreneurial resources, and innovativeness. It also aimed to advance the study towards identifying the contribution of entrepreneurial commitment and environmental unpredictability in fostering/hindering the influence of entrepreneurial passion and resources towards innovativeness. As a result, the study contributes to entrepreneurship literature by investigating the moderating role of entrepreneurial orientation and environmental unpredictability in relating entrepreneurial passion and entrepreneurial resource to innovativeness. In addition, by exploring the contribution of entrepreneurial passion and resources towards innovativeness, it helps to bring the discussion forward on the subject matter.

2. Theory and hypotheses

2.1. Innovativeness

Entrepreneurs with high innovativeness mainly aimed at profit and development (Carland et al., 1984) because entrepreneurs have the desire to seek innovative resources, environmental changes and the signs suggestive of opportunities for innovation (Gozukara & Colakoglu, 2016). Innovation becomes increasingly important to many industries, which more and more rely on recent technological developments (Schilling, 2013). It includes the development and enhancement of products and services and new administrative techniques and technologies for performing organizational functions (Okhomina, 2010). Schumpeter (1990) explains innovation as a significant entrepreneurial precursor and entrepreneur as an innovator (Gozukara &

Colakoglu, 2016), while Covin and Miles (1999) argue that without innovativeness, entrepreneurship cannot exist and that innovativeness is a crucial part of entrepreneurship survival strategies (Omisakin et al, 2016).

Innovativeness is the specific tool of entrepreneurs and the means by which they exploit change (Drucker, 1985). Covin and Slevin (1989) defined innovativeness as the firm's propensity to engage in new idea generation, experimentation, and research and development activities. Robinson et al. (1991) describe innovation as the ability to recognize opportunities and respond to such opportunities creatively, thereby providing consumers with innovative products and services. It is the firm's ability and attempt to engage in new ideas or to innovate and create processes that may result in new products (Rauch et al., 2009). Schilling (2013) defines innovation as the act of introducing a new device, method, or material for application to commercial or practical objectives. It is the ability to do something in a creative and improved way and the ability to exploit business opportunities (Gozukara & Colakoglu, 2016).

2.2. Entrepreneurial Passion

Scholars have recently focused on the role affect and emotion play in entrepreneurship (Cardon, 2008; Cardon et al., 2009). A number of perception-based elements may be attributed to entrepreneurs, perhaps the most widely noted and readily visible element is a passion (Davis et al., 2017) because it indicated that entrepreneurial behavior is passionate, full of emotional energy, drive, and spirit (Huyghe et al., 2016). Moreover, a growing volume of research indicates that entrepreneurial passion – which involves intense positive emotions and a meaningful identity connection – is central to the entrepreneurial experience and venture-related outcomes (Huyghe et al., 2016).

Passion was defined as a strong inclination toward an activity that people like, find important, and in which they invest significant time and energy (Vallerand et al., 2003). Chen et al. (2009) define entrepreneurial passion as “an entrepreneur's intense affective state accompanied by cognitive and behavioral manifestations of high personal value”. Therefore, passion is more than the experience of strong emotions: it specifically concerns intense positive feelings for activities that are central and meaningful to an individual's self-identity (Cardon et al., 2009).

Entrepreneurial passion, acting through its components of intense positive feelings tied to salient identities, is a key motivational driver of entrepreneurial behavior (Cardon, 2009; Huyghe et al., 2016). Particularly, an entrepreneurial passion was defined as an individual's intense affective state experienced by engagement in entrepreneurial activities that are often accompanied by outwardly visible manifestations (Cardon et al., 2013; Chen et al., 2009; Davis et al., 2017). As such, we use Cardon et al., (2009) definition of Entrepreneurial Passion as “consciously accessible intense positive feelings experienced by engagement in entrepreneurial activities associated with roles that are meaningful and salient to the self-identity of the entrepreneur.

2.3. Entrepreneurial resource

Resources are defined as those tangible and intangible assets that are tied semi permanently to the firm that includes physical, human, technological or reputational (Hadjimanolis, 2000). Given the scarcity of this valuable resources, firms must find ways of acquiring and efficiently deploying such resources (Massis et al., 2017). A single resource is rarely the main success factor of the firm. It is usually the combination of assets in resource clusters, which leads to competitive advantage. Inter asset coupling and interaction with complementary assets (e.g. marketing skills complementing the technological innovation assets) contribute frequently to the uniqueness and inimitability of assets (Hadjimanolis, 2000).

Most SMEs, due to limited resources, need to access bundles of resources, including knowledge-based resources (Wiklund et al., 2009). Enterprises which wish to develop and be innovative, must increase the resources of knowledge and capabilities of their employees and, at the same time, enrich the resources of human capital. Investment in the development of employees ought to be treated by employers equally on a par with investments in research and development (Kura and Ł gowik- wi cik, 2014).

Lack of financial support does not seem to discourage an active involvement in entrepreneurial activity (Thurik & Grilo, 2008). The interconnectedness of household and business leads to flexibility in resource availability, as households can release resources from other household activities and make them available for business development when needed – or decided (Alsos et al., 2003). Opportunity business owners are significantly more likely to be wealthier in terms of household income and to have a higher preference for business ownership versus paid employment (Zwan et al., 2016). Multiple income sources within the household offer advantages

to the business, both by relieving the pressure to generate household income and by providing a source of readily available external finance when required (Alsos et al., 2003).

2.4. Innovativeness and Entrepreneurial passion

Entrepreneurial passion has gained credence in recent years in explaining entrepreneurial efforts (Drnovsek et al., 2016) because, a burgeoning body of research is beginning to shed light on the various constructs linked to passion in entrepreneurship (Murnieks et al., 2016). They also indicate that passion plays a critical role in new venture creation processes and outcomes (Huyghe et al., 2016). In addition, passion can foster creativity and the recognition of new information patterns critical to the discovery and exploitation of promising opportunities (Baron, 2008; Sundararajan and Peters, 2007; Cardon, et al., 2013) and it is the “fire of desire” that fuels entrepreneurs' daily efforts and creativity (Cardon, 2009). Accordingly, scholars have pressed for a deeper understanding of passion as a central element of entrepreneurial efforts (Cardon et al., 2009; Chen et al., 2009; Cardon et al., 2013).

Even though the literature is unclear about the mechanisms for how passion influences outcomes (Cardon et al., 2009), Murnieks et al., (2011) define entrepreneurial passion as a strong inclination towards enjoyable, important activities related to being an entrepreneur. The core argument of Biraglia and Kadile, (2017) work is built on the premise that the passion for entrepreneurial activities, such as exploring new market ideas, sourcing founding capital, and establishing and developing new products (Cardon et al. 2009; Cardon et al. 2013), can lead individuals to become entrepreneurs.

Given the uncertain success of launching new products and services and the challenges of developing new organizations with limited resources, passion can become a key driver of entrepreneurial action (Cardon et al., 2013). The work of Ho and Pollack, (2014) portray entrepreneurial passion as a valuable characteristic that will unequivocally yield positive outcomes. Scholars suggest that entrepreneurs who experience passion benefit from its motivational energy (Cardon et al., 2009). The study by Smith and Miner (1983) determined that entrepreneurs stated a desire to produce creative and innovative solutions. More concretely, passion can fuel motivation, enhance mental activity, and provide meaning to everyday work (Cardon et al., 2013).

Senyard et al., (2014) stated that little theory or research identifies or explains the patterns of behavior that differentiate new firms that manage to innovate from those that remain largely imitative. However, Montiel-Campos and Palma-Chorres (2016) found a relationship between passion and innovation. Authors reported a positive correlation between entrepreneurial intention and innovativeness (Gozukara & Colakoglu (2016). Cardon et al. (2009) back up this relationship by proposing that if the individual's identity is dominantly the one of an inventor, his or her passion will affect the creative problem-solving and hence the effectiveness of recognizing opportunities. A similar finding was made by Baron and Tang (2011) whose study resulted in recognizing a connection between the positive affect of the entrepreneur and the radicalness of innovations.

H1: There is a positive influence of entrepreneurial passion on innovativeness.

2.5. Innovativeness and Entrepreneurial Resource

The absence of substantial resource endowments restricts the ability of most new firms to innovate (Senyard et al., 2014). Compared to large corporations, SMEs are generally more resource constrained in their ability to develop and commercialize new products and services. Despite such resource constraints, some special characteristics of growing firms allow leveraging their resources to innovate and to achieve a competitive advantage against larger global competitors (Massis et al., 2017). Therefore, individuals who developed sufficient human capital that helps better identify entrepreneurial opportunities and efficiently exploit them (Shirokova et al., 2016). That means individuals who have adequate human capital tend to innovate more on entrepreneurial activities comparatively.

While a growing literature has focused on innovation in the individual owner-managed and/or family-owned and managed firm, scholars still lack an integrative, theory based perspective that helps explain their ability to innovate in the face of constrained resources (Massis et al., 2017). Very little is known about the patterns of behavior that permit some resource-constrained firms to innovate (Senyard et al., 2014). Researchers still know little about how firms efficiently manage their resources to innovate (Massis et al., 2017).

Recent studies point to the importance of effective and efficient resource deployment to achieve innovation (Sirmon et al., 2011; Massis et al., 2017). Both nascent and young firms are seldom able to invest in lengthy and expensive development processes, which suggests that they may

frequently rely instead on other pathways to generate innovativeness within the firm (Senyard et al., 2014).

Generally, many of the key resources needed for entrepreneurial activities, such as financial and human capital, reside with individuals (Autio & Acs, 2010; Lim et al., 2016; Shane & Venkataraman, 2000). Therefore, many entrepreneurs tend to engage on innovativeness because of the availability of entrepreneurial resources. Conversely, people with low income or limited education tend to encounter significant obstacles to identifying and seizing entrepreneurial opportunities (Lim et al., 2016). Lim et al., (2016), and Autio & Acs, (2010) focus on financial capital (household income) and human capital (level of education) as two key individual resources. Therefore, both human and financial resource contributes for the innovativeness of small firm managers/owners.

Hypothesis 2: There is a positive influence of entrepreneurial resource on innovativeness.

2.6. The Moderating Role of Entrepreneurial Commitment

Fayolle et al. (2011) define entrepreneurial commitment as the moment when the individual starts devoting most of his or her time, energy, and financial, intellectual, relational and emotional resources to his or her project. For some SME owners, this recognition led to an idea that ‘something must be done’, to make change happen, and it is the responsibility of business people to do it – they need to be committed to driving through change (Nurse, 2014). Commitment can influence future behaviors and imply a succession of decisions and actions toward effectively carrying out the behavior (Fayolle and Linan, 2014). Individuals have to ‘get off their bottoms and do something’. While it can make sense to change business practices to account for changing conditions (a discourse of competitiveness) this SME owner takes a moral position (Nurse, 2014). Commitment is what binds the individual to his or her behavioral acts (Fayolle and Linan, 2014).

An earlier study on the factors associated with entrepreneurial success revealed that high-growth-oriented entrepreneurs labeled as “ambitious” possess a strong commitment to the success of their businesses (Gundry & Welsch, 2001). In an organizational context, passion and affective commitment are both motivational constructs with emotional underpinnings, but they are distinguished on the basis of specificity and attitudinal referent (Wong and Lee, 2011). While perceptions of entrepreneurs’ passion for inventing and developing enhance commitment,

passion for founding reduces it (Breugst et al., 2012). Therefore, the relationship between the entrepreneurial passion that includes a passion for inventing and developing and innovativeness is moderated by commitment.

Hypotheses 3: Entrepreneurial commitment moderates the relationship between entrepreneurial passion and innovativeness.

The role commitment plays in entrepreneurship is widely supported (Tasnim, 2016), but they need resources to improve the role they play in entrepreneurial activity. Successful entrepreneurs have a strong competency in totally committing, determining and dedicating, as well as taking proactive actions towards their responsibilities and duties (Xiang Li., 2009). The entrepreneur's commitment and determination are critical when looking for successful entrepreneurs (Cardon et al., 2009). Successful entrepreneurs are often characterized as diligent people with a restless attitude in their work (Xiang Li., 2009). One characteristic, namely a firm's commitment to long term objectives, might be especially important to the effectiveness of EO (Covin et al., 2006), including innovativeness (Tasnim, 2016).

Hypotheses 4: Entrepreneurial commitment moderates the relationship between entrepreneurial resources and innovativeness.

2.7. The moderating role of environmental unpredictability

The environment plays a much more prominent role in the discovery perspective: the environment is conceptualized as a given set of conditions that are objective and definable (Edelman and Yli-Renko, 2010). In the discovery perspective, cognition impacts the probability that particular people will identify and exploit an opportunity, opportunity identification depends upon an individual's prior knowledge and exploitation depends upon an individual having the required cognitive capabilities (Shane, 2000; Shane & Venkataraman, 2000). The inherent self-organization and unpredictability mean that there is less control (Pellissier, 2012). Therefore, environmental uncertainty restricts the entrepreneurs from taking entrepreneurial actions such as new product development, entry into a new market, etc (McMullen & Shepherd, 2006).

Given the turbulence that is introduced into the environmental selection mechanisms in dynamic environments, new firms also have a greater ability to successfully challenge industry incumbents (Edelman and Yli-Renko, 2010). The discovery perspective considers

entrepreneurial opportunities as existing independent of the individuals who recognize them, opportunities are, in essence, a product of the environment (Edelman and Yli-Renko, 2010). Scholars suggest that highly activated and positive emotional states such as passion foster creativity and recognition of new patterns that are critical in opportunity exploration and exploitation in uncertain and risky environments (Baron, 2008). Opportunities arise in the environment under conditions of high uncertainty and turbulence (Edelman and Yli-Renko, 2010). Strambach (2002) suggests that the interdisciplinary view of innovation systems is concerned with understanding the general context of the generation, diffusion, adaptation, and evaluation of new knowledge, which determines innovativeness. Therefore, the hypothesis is;

Hypotheses 5: Environmental unpredictability moderates the relationship between entrepreneurial passion and innovativeness.

The environmental factors such as resource pools and information sources of competitors, potential markets, and regulators provide necessary information related to their behavioral characteristics for decision making in an organization (Ghosh et al., 2014). Miller and Shamsie (1996) distinguish between property-based and knowledge-based resources, the latter is of greater utility in uncertain i.e. changing and unpredictable environments. Patterns of resource scarcity/availability are viewed as creating selection environments that impact organizational births and deaths, irrespective of whether or not the external resource conditions actually impact firm behavior (Edelman and Yli-Renko, 2010).

Small firms frequently lack critical resources. Apart from the resource gap, they may also have what has been called an innovation capability gap (Dodgson & Bessant, 1996 cited in Hadjimanolis, 2000). The extent to which objective opportunities are exploited is influenced by nascent entrepreneurs' access to resources (Brush et al., 2001). Resource scarcity thus constitutes an objective constraint on entrepreneurial action and outcomes. Complexity encourages a segmentation of the environment (Pellissier, 2012). Duncan segmented environment based on the relevance of the social and physical factors comprising it (Ghosh et al., 2014). This allows for the impact of the environmental factors on resources and resource flows to be examined, which helps determine resource predictability and the environmental locus of control with regards to resource flows (Pellissier, 2012). For example, Knowledge-based resources allow the

organization to respond and adapt to challenges and are closely connected to the ability to innovate (Hadjimanolis, 2000).).

Hypotheses 6: Environmental unpredictability moderates the relationship between entrepreneurial resources and innovativeness.

2.7. Control variables

We used firms age and size as a control variable to ensure adequate validity by adding to other explanatory variables for innovativeness.

Smaller organizations are, of course, more flexible and thus more able to be innovative (Pellissier, 2012). Many small firms not only lack resources for innovation but probably also lack the relevant specialized and co-specialized assets in order to appropriate the benefits of their innovations (Hadjimanolis, 2000). Thus, the size of the organization counts because it is easier to develop relationships and creativity in a smaller group and there may be a greater willingness to release control. Larger organizations seem to become inflexible and rule-bound. Their flexibility is normally embedded in specific units, but overall, there is a notion that adaptive and resilient systems are characterized by order or disorder, or stability or flexibility (Pellissier, 2012). The size of the firm also added as a factor to test whether it has an impact on entrepreneurial engagement. Small firms are considered more entrepreneurial than large firms because of several characteristics (Kilenthong et al., 2010).

New firms simply lack the history to have developed many of the assets that older firms rely on to innovate, or the liquid resources to develop or acquire them quickly. Compared with older and resource-rich firms, most new firms face what seems a deep challenge when it comes to developing innovations (Senyard et al., 2014). Conversely, older firms may suffer from excesses of bureaucracy and from liabilities of age that can suppress innovativeness (Senyard et al., 2014).

Generally, by taking into consideration the above theoretical review and hypotheses, we developed the following conceptual model.

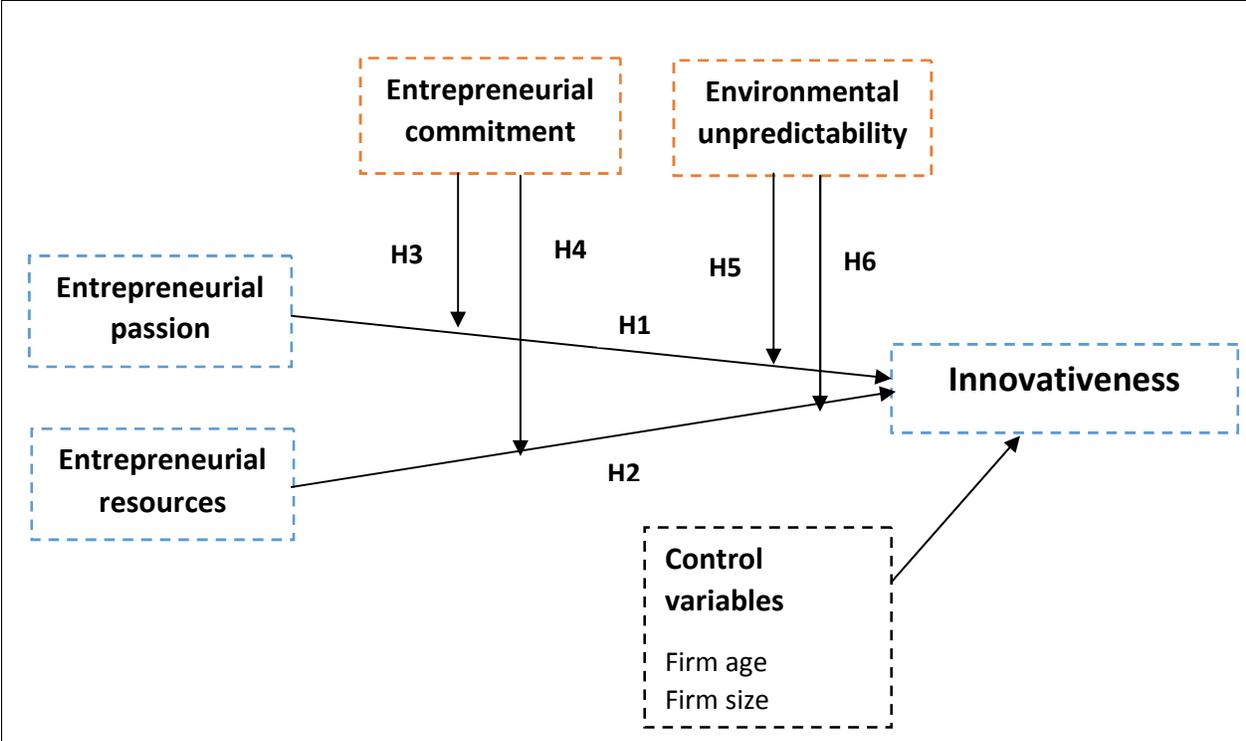


Figure 1: Conceptual Framework

3. Methodology

3.1. Research and sample design

The design of the study that was used is descriptive and explanatory in nature. The study employed descriptive research design to discover the current situation in the firm as it exists and explanatory study to discover the impact of entrepreneurial passion and entrepreneurial resource on the owners/managers innovativeness, with an aim of estimating the integrated influence of these factors. To address this, the primary data were obtained using questionnaire from selected small firm owners/managers using multi stage sampling technique. In the first stage, central part of Ethiopia is selected judgmentally since many of the small firms operated in this region. In the second stage, a sample of five cities which have a large number of firms were selected. The selected owners/managers were from small enterprises that are registered, licensed formally and currently operating under Trade and Transport Bureau. A questionnaire was distributed to a total sample of 125 firms and 112 were returned. The articles published in the area were also highlighted to review theoretical issues and to look consistency in order to make the study fruitful and provide appropriate additional information.

3.2. Measures

The measure of innovativeness is mostly included as a dimension of entrepreneurial orientation. Prior research on entrepreneurship suggests that entrepreneurial orientation (includes innovativeness) is a unidimensional construct (Lyon et al, 2000). Later Lumpkin and Dess (1996) conceptualized EO as a multi-dimensional construct. Later, Hughes and Morgan (2007) improve and used three items questionnaire for innovativeness that is measured on seven point Likert scale. For this study, these three items of innovativeness is adopted to capture the measure of innovativeness

Vallerand et al., (2003) introduced the concept of The Dualistic Model of Passion (DMP) which suggested that individual may experience passion in two (2) ways: The obsessive or the harmonious passion. In their study Ismail et al., (2016) used harmonious passion to explain entrepreneurial passion which is hypothesized by Vallerand's "emerge from autonomous internalization" as compared to obsessive passion. Cardon and colleagues operationalized this construct into a passion for inventing-searching for a new business opportunity in new markets, founding-establishing a new business, and developing an already existing one (Cardon et al. 2009). Passion for founding is not included in this research because of the respondents are the owners/managers of established firms. Therefore, to measure a passion scale we adopt a nine item instrument that concerns Passion for inventing and Passion for developing from Cardon et al. (2013) and measured on seven point Likert scale.

Lim et al., (2016) and Autio & Acs (2010) focus on financial capital (household income) and human capital (level of education) as two key resources. We also employed household income and level of education to measure financial resource and human resource respectively. To measure household income we use a five point Likert scale ranging from very less (1) to substantial (5). For individuals educational level, we measure by providing five alternatives, including illiterate, primary school, secondary school, technical and vocational education, and graduated.

The commitment measure consists of four items adopted from Cardon et al., (2009) and Simon et al., (2011). The first three items are modified and presented to owners/managers of small firms from Cardon et al., 2009, while one item was modified from Simon et al., (2011) commitment to long term objectives items. To measure this item, owners/managers responded on the scale of 1

to 7 ranging from strongly disagree to strongly agree to all items. The items include (1) I am willing to do whatever it takes, (2) I have developed strong social networks based on the quality of management team and advisors, (3) I have stated he/she uses the product/service, and (4) I am absolutely committed to the achievement of our long-term objectives.

Miller and Shamsie, (1996) distinguish between property-based and knowledge-based resources, the latter is of greater utility in uncertain i.e. changing and unpredictable environments. According to Durand & Coeurderoy, (2001) Environmental unpredictability is assessed as the mean of three scale items; these include market foreseeability, strategic planning vision and the perception of skill changes. We used a 3 item scale developed by Durand & Coeurderoy, (2001) to measure environmental unpredictability.

In 2006, the Ethiopian government developed a strategy for the development of micro and small scale enterprises and many firms established after this year. Therefore, the number of firms established after 2006 were taken as younger firms, while the firms established before 2006 were categorized under older firms. In Ethiopia, the classification of firms as micro, small and large is different from the other countries. For instance, the maximum number of employees should be 30 including permanent and temporary workers. For this research, the size of the firm is determined only by the number of permanent workers. Then, we take ten workers as a baseline to state smaller and larger small firms.

3.3. Data analysis techniques

The measurement instruments are tested for validity and reliability before analysis was made for completeness and compatibility with the purpose of the study. Pre-tests of a questionnaire were conducted with twenty firms of varying sizes and belonging to different sectors for getting feedback regarding the clarity of the survey items and to evaluate new questionnaire items developed for the research. The same instrument is used for pre-test and post-test measures to ascertain the data quality and reliability. To measure the reliability Cronbach' alpha test of reliability has been used. The data gathered through questionnaires were analyzed and presented by quantitative methods of data analysis. For quantitative analysis descriptive statistics, correlation analysis and multiple linear regression analysis was applied. The results were interpreted using the values from the mean, standard deviation, and coefficients and presented quantitatively through tables and figures to give a condensed picture of the data.

4. Results and Analysis

4.1. Results of Descriptive statistics analysis

From the mean value, we identified that the firms are moderately innovative. Regarding the age and size of the firm, less than half of firm's are above 10 years in existence and less than half of firms have more than 10 workers. From this, we can understand that more firms have less experience in the market since they are recently established and these firms size is also small. Small firm's owners/managers are moderately passionate towards their job. Most of the firms faced scarcity of entrepreneurial resources that used (both financial and human capital) to run their business.

Table 1: Descriptive statistics result

Variables	Mean	Std. Deviation
Innovativeness	3.1696	1.27970
Age	.4554	.53505
Size	.4375	.49831
Passion	3.1250	1.33643
Resource	2.5268	1.01307
Commitment	3.0268	1.46712
Unpredictability	3.0714	.97458
passion_commitment	10.9911	8.90439
passion_unpredictability	8.9196	3.49037
resource_commitment	8.6339	6.21245
resource_unpredictability	7.3750	3.18817

4.2. Results of Regression analysis

According to Cooper and Schindler (2009), multicollinearity problem should be corrected when the correlation extent to be above 0.8. In our case, there is no collinearity because there is no value that exceeds this value. The tolerance values which are not less than 0.10 also used to show the collinearity problem shows the absence of multicollinearity. As a result, collinearity is not a problem.

For this study hierarchical regression analysis was applied. In the first model, only control variables were included and the main effects are added in the second model. Later moderating variables are included and finally, the interaction variables added. Our control variables include firm age and firm size. We used entrepreneurial commitment and environmental unpredictability

as moderating variables. The outcome of the analysis reveals that, our results were statistically significant because $F = 5.509$, $p=0.005$ for model 1, $F = 71.350$, $p=0.000$ for model 2, $F = 71.435$, $p=0.000$ for model 3, $F = 53.845$, $p=0.000$ for model 4. The control variables alone explain entrepreneurial engagement 9.2%, and with main effects, it explains 72.7%. In model 3 after moderators are added, it explains about 80.3% and it reaches 84.2% after interaction variables.

Table 2: Multi-level regression result

Variables	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>	<u>Model 4</u>
AGE	.233 (1.065)	.177 (1.460)	.056 (.531)	.124 (1.237)
SIZE	-.726*** (-3.093)	-.184 (-1.368)	-.121 (-1.048)	.007 (.066)
Passion	—	.568*** (8.712)	.252*** (3.368)	.572** (2.554)
Resource	—	.385*** (-4.549)	.247 (3.241)	.578** (2.280)
Commitment	—	—	.332*** (5.031)	.824*** (5.896)
Unpredictability	—	—	-.254*** (-3.640)	.050 (.305)
passion_commitment	—	—	—	.125*** (3.350)
Passion_unpredictability	—	—	—	.055 (1.221)
Resource_commitment	—	—	—	-.031 (-.593)
Resource_unpredictability	—	—	—	-.186** (-2.447)
Constant	3.381***	.424*	1.559***	.272*
R ²	.092	.727	.803	.842
Adjusted R ²	.075	.717	.792	.826
F	5.509	71.350	71.435	53.845

*** $p < 0.01$ ** $p < 0.05$ * $p < 0.1$

The result of model 1 indicates firm size positively influences innovativeness in the first model only, while it's insignificant in the rest of models. The research finds a positive direct influence of passion and entrepreneurial resource on innovativeness. The moderator's entrepreneurial commitment and environmental unpredictability also moderate the relationship between entrepreneurial passion and innovativeness, as well as entrepreneurial resources and

innovativeness. Regarding the interaction variable, the joint influence of entrepreneurial passion and commitment positively influences the innovativeness. The interaction of resource and unpredictability also influences innovativeness positively.

5. Discussions and conclusions

The study highlights the current practice of innovativeness, the level of owners/manager passion, and entrepreneurial resources, as well as the influence of entrepreneurial passion and resources on innovativeness under different environment and commitment level. The finding of the study indicates that the innovativeness practice among small firm's owners/managers is moderate. The available resource is not sufficient while the entrepreneurial passion level is moderate. The model combines the dimensions of entrepreneurial passion and entrepreneurial resource in influencing innovativeness under different entrepreneurial commitment level and dynamic environment. Drawing on the previous literature, the study identified the personal drives as well as resources positively influence innovativeness. In addition, the positive influences of entrepreneurial passion and resources on innovativeness intensified by the commitment of owners/managers, while the influence of entrepreneurial passion and resources on innovativeness is weakened because of the unpredictable environment.

Since innovativeness is the engagement in new ideas, new products, new technology, new processes, and new markets that exploit business opportunities, it improves the overall performance of a given firm. But the current practice is not sufficient among small firms. That is the level of control is high, the involvement in new product and market is not sufficient. The strong desire and drive to discover new business opportunity, the existence of emotional energy and strong spirit to exploit a new opportunity, and the owners/managers intense affect contribute to the involvement in entrepreneurial activity among owners/managers is moderately practiced. In addition, the insufficiency of both human capital and financial capital hinders the innovativeness level of small firm owners/managers.

Passion is a driving force for entrepreneurial activity because small firm owners/managers who are passionate were more innovative. Passionate firms are involved more on discovering and exploitation of promising business opportunities in existed firms, which includes entering a new market, developing a new product, and introducing new technology. This is the internal driving force, emotional energy, and strong spirit that influence the owners/managers of small firms to

be more innovative. When firms are enjoyable and motivated to new ideas and market need, when they are excited in scanning their environment and inventing new solutions for the problems they faced, they tend to innovate more. This is because the internal positive affective force and drive that makes them be motivated and excited in innovating new products/services, new markets, technologies, and processes by scanning their environment and searching new solutions for their problems. In general, entrepreneurial passion encourages the involvement of individuals on searching for new ideas and contributes to searching of new products/services by scanning the environment in which the firms were involved.

No firms can survive, compete against large corporations, and grow without having resources required to involve in entrepreneurial activity such as innovativeness. It's widely discussed that entrepreneurial resources are essential for managers to involve in innovativeness. That is innovativeness is dependent on the availability of both human and financial capitals since they are success factors of firms. The appropriate educational level and sufficient household income encourage individuals to involve in innovative practices. Individuals and firms who have adequate human and financial capital tend to exploit opportunities easily because they develop the required skill to identify promising business opportunities, and tends to have a financial capacity needed to exploit the discovered opportunities.

When passionate firms are devoted their time, effort, and energy, individuals become successful in innovation. That is the commitment from different factors including financial, emotional, intellectual, and behavioral acts raises a fire on the individuals to be more innovative. Therefore, commitment influences innovativeness by raising the driving internal emotions and energy towards involvement in new product/service and processes development. Directly commitment affects the individual's passion that makes them stronger in innovating new processes and products/services because their commitment leads them to change their ambition to action. Not only passion, the commitment of owners/manager also intensifies the relationship between entrepreneurial resources and innovativeness. Managers that are committed exploit their resources more effectively towards innovating new products/services and technologies. The desire and drive of innovativeness were not more successful without committed human power and sufficient capital. These are the fires that change the ambition of individuals to innovative action.

The unpredictability and uncertainty of the environment are the factor that hinders the relationship between entrepreneurial passion and innovativeness. The passion in the unpredictable environment faced a challenge in changing the desire to actions. The uncertainty in the environment increases complexity, which brings difficulty in controlling the environment. The development of new product/services and new systems are also weak when the environment is unpredictable. It's known that entrepreneurial resources encourage entrepreneurs towards innovativeness, but the unpredictable environment can bring fear and worry that hinders these entrepreneurs in engaging in the entrepreneurial activity of innovativeness. Many small firms failed at the early stage because they lack both skilled human capital and financial resource that breakthrough the unpredictable environment. In general, the environment which includes social, regulatory, and physical influences the relationship between entrepreneurial resources and innovativeness of owners/managers.

6. Practical implications

The finding of the study will be used to guide the policy makers and provides implication for the owners/managers. The policy makers should develop sustainable strategies that encourage passionate firms towards innovativeness. The policy should also include the strategies of discovering and exploiting business opportunities and resources to encourage owners/managers of small firms towards innovativeness. The paper also provides implication for owners/managers of small firms in different ways. First, the owner/managers who are passionate should be committed in order to be innovative. The commitment is also required to exploit financial and human resources to be innovative. Second, the owners/managers should be ready to take risks in an unpredictable environment since opportunities were discovered and exploited from the uncertain environment.

7. Limitations and future implications

This research is not exempt from some limitations. To specify the limitation that we faced, first our research concerns the subjective measure of financial capital while it has more importance when both financial and non-financial measures are combined. Therefore the future research should include the financial measures in addition to non-financial measures. Second, the study is limited to central Ethiopia, while it has a paramount importance if it covers a large geographical area that represents the continent or the world. As a result, a cross country study is recommended for future researchers for generalization. Finally, there are also other factors that influence

innovativeness such as entrepreneurial intention and entrepreneurial background. Therefore, the future research may improve the relationship by adding these and other variables in the relationship between entrepreneurial passion, entrepreneurial resources, and innovativeness.

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