Entrepreneurial passion and SMEs' performance

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Entrepreneurial Passion and SMEs' Performance: Moderating Effects of Financial Resource Availability and Resource Flexibility

Abstract
In this paper, we examine the effects of the three identity-based entrepreneurial passions (EPs) (that is, passion for inventing, developing, and founding) on established small and medium-sized enterprises' (SMEs') performance. We adopt a resource contingency perspective to develop our theoretical model to examine the relationship between EP, resources, and SMEs' performance. Specifically, we investigate the moderating influence of financial resource availability and resource flexibility on the relationship between EP and SMEs' performance. We test our hypotheses using time-lagged data from 193 SMEs in Ghana. Our hypotheses are largely supported, and this offers a nuanced view of the relationship between the different domains of EP and performance. Our findings contribute to the passion, SME, and broader entrepreneurship literature.

Keywords: *entrepreneurial passion, Ghana, resources, SMEs, performance, Africa*

1. Introduction

Entrepreneurial passion (EP) is considered as the fire that fuels goal pursuit and enables entrepreneurs to overcome challenges they encounter during the entrepreneurial process (Cardon et al., 2009, 2013). Two dominant theoretical frameworks have been employed to examine passion in the entrepreneurship literature—the dualistic model of passion (Vallerand et al., 2003) and the identity-based model of passion (Cardon et al., 2009). Researchers have noted that Cardon and colleagues' framework is specific to role identity as it focuses on understanding how entrepreneurs' passion for different entrepreneurial activities impacts cognitive and behavioral outcomes. The framework of Vallerand and colleagues is more general and focuses on examining how obsessive and harmonious passion toward an "entrepreneur identity" influences firm outcomes (Murnieks et al., 2020). We adopt Cardon's identity-based concept of passion in our study, given our interest in investigating how entrepreneurs' passion for certain entrepreneurial activities (that is, inventing, founding, developing) affect firm performance. In their seminal paper, Cardon et al. (2009, p. 517) conceptualized EP 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." Accordingly, Cardon et al. (2013) operationalized three distinct domains of EP

that mirror the entrepreneurial process, namely *inventing*, *founding,* and *developing*, each involving distinct sets of activities and tasks. Cardon and colleagues (2009, 2013) state that entrepreneurs with an inventor role identity display passion for inventing, prototyping, and exploring new opportunities. In contrast, entrepreneurs with a founder role identity tend to have passion for starting ventures and assembling resources (for example, financial and human resources) to pursue new opportunities, and those with a developer role identity have passion for activities related to venture growth and expansion.[1]

Despite the significant contributions made by scholars over the last few years to advance our understanding of identity-based EP (Drnovsek et al., 2016; Mueller et al., 2017; Strese et al., 2018), several issues constrain our understanding of this domain. First, identity-based EP researchers have predominantly focused on the positive effects of EP, and in the process, they have overlooked the negative effects of EP on outcomes. This lack of attention toward understanding the conditions under which passion positively or negatively influences firm outcomes is surprising given the differential effect of the three EP domains (Cardon & Kirk, 2015; Stenholm & Renko, 2016) and the dysfunctional effect of founders' EP on employee commitment (Breugst et al., 2012). Second, researchers often associate EP with a particular venture stage, and this obfuscates the effect of EP on entrepreneurial outcomes. Empirical research following Cardon et al. (2009, 2013) has emphasized the contextual nature of EP by focusing on a specific EP domain (for example, passion for developing) and excluding others (for example, passion for founding) by claiming the relevance of a particular EP domain to the type of ventures they are studying (Drnovsek et al., 2016; Mueller et al., 2017). For instance, Drnovsek et al. (2016, p. 195) state that their study's "focus on entrepreneurial passion for developing stems from our interest in technology ventures that have multiple growth goals, including taking a technological idea from its inception to commercial use and, later, market

[1] See Cardon et al. (2013, pp. 376–377) for a detailed discussion of these three role identities and the activities they are associated with.

adoption." Similarly, Luu and Nguyen (2021, p. 798) argue that they "focus only on the passion for developing, as it is associated with the growth of the venture after being established and it matches the research purpose to examine its effect on the innovation strategies of firms after founding." This is surprising, as the conceptualization and operationalization explicitly state that EP is specific to an entrepreneur rather than the venture (Cardon et al., 2009, 2013). Indeed, findings indicate that the intense positive feelings that individuals experience and the meaningfulness of these activities to their self-identity can persist independent of a particular venture or specific venture stage (Cardon et al., 2013; Collewaert et al., 2016).[2] Furthermore, the overwhelming focus on new ventures and technology ventures in the EP literature, while informative, may at the same time restrict our understanding of the relationship between EP domains and firm outcomes. Indeed, Newman and colleagues (2021, p. 850) call for researchers to investigate the outcomes of EP in other types of organizations such as established firms. We argue that it is important to address these issues to avoid falling into the same predicament as previous passion research studies "that ignore or assume away the meaningfulness that target activities may have for the self-identity of respondents" (Cardon et al., 2013, p. 376). This leads us to our first research question: *What is the effect of the three EP domains on established small and medium-sized enterprises' (SMEs') performance?*

Correspondingly, our understanding of the contingencies that affect the relationship between EP and firm outcomes is limited. While empirical evidence indicates that EP motivates engagement with distinct types of activities (Drnovsek et al., 2016; Mueller et al., 2017), adequate resources are needed to properly undertake these activities. Given the resource challenges that SMEs experience, researchers have argued that the availability (or lack) of resources influences the type of activities

[2] We believe that it is important to stress the conceptualization (Cardon et al., 2009, p. 517) and operationalization (Cardon et al., 2013, pp. 375–377) of EP. This has often been ignored, as researchers have frequently equated EP with venture stages and erroneously assumed that these three EP domains occur sequentially. The three EP domains are related with the affect and identity salience of founders/CEOs, and they can exist independent of the venture stage. They are either a good fit or a misfit with a focal venture's stage (Boone et al., 2020).

CEOs pursue and how well they can pursue those activities (Aldrich & Auster, 1986; Freeman et al., 1983; Hessels & Parker, 2013; Welsh & White, 1981). While resource constraints limit the type of activities the CEO engages in (Van Burg et al., 2012), resource flexibility and availability of resources unshackle these constraints. Indeed, researchers state that resource flexibility can lead to bricolage behaviors (Senyard et al., 2011), which is "making do by applying combinations of the resources at hand to new problems and opportunities" (Baker & Nelson, 2005, p. 333). Likewise, financial resource availability (Wiklund & Shepherd, 2005), which is similar to unabsorbed slack resource (Voss et al., 2008), allows CEOs to pursue varied activities (Tabesh et al., 2019). This leads us to our next research question: *How do resource contingencies affect the relationship between CEOs' EP domains and established SMEs' performance?* Specifically, to enhance our understanding of the contextual factors that affect this relationship we investigate how *perceived financial resource availability* and *resource flexibility* moderate the relationship between CEOs' EP and established SMEs' performance.

Using time-lagged survey data from 193 established SMEs in Ghana, a developing African country, we examine the relationship between the EP and SME performance as well as the moderating effect of resources on this relationship. Our study provides several contributions to the EP, SME, and the broader entrepreneurship literature. The first is a focus on better understanding the influence of the three identity-based EPs on firm performance. While a few studies have examined the varying effect of the three identity-based EPs on outcomes such as employee commitment (Breugst et al., 2012) and persistence (Cardon & Kirk, 2015), less attention has been given to examining the influence of the three identity-based EPs on SMEs' performance. The second contribution is the use of "resource" contextual variables as moderators of the EP–SME performance relationship to gain a better understanding of the conditions under which EP has a positive impact on performance. While the EP literature has highlighted the mechanisms (e.g., Drnovsek et al., 2016; Mueller et al., 2017) through which EP affects venture outcomes, we have limited insights of the

factors that moderate the relationship between EP and venture outcomes. The third contribution is understanding the relationship between CEOs' identity-based EP and performance of established SMEs. Newman and colleagues (2021, p. 850) note that "most research has examined the outcomes of entrepreneurial passion in the entrepreneurial venture context." We address this shortcoming by investigating EP in the context of established SMEs[3] and argue that the EP domains are not related to a particular venture stage. The fourth contribution is the sub-Saharan study setting, Ghana. The predominant focus on developed countries in entrepreneurship research calls into question the generalizability of entrepreneurship theories and findings. The Ghanaian context is significantly different from developed countries in terms of economic, financial, and infrastructure development (Ahsan et al., 2021).

In the following section, we briefly review the identity-based EP literature. Next, we introduce the research model (see Figure 1) to theoretically ground the study and develop our hypotheses. In Sections 4 and 5, we describe the research methodology and the results of our study, respectively. Finally, we discuss the theoretical and practical implications and future research opportunities.

2. Overview of the Identity-based Entrepreneurial Passion Literature

The EP literature has significantly advanced over the last decade (for a detailed review see Newman et al., 2021). EP is rooted in entrepreneurs' identity and is stated to strongly influence their desire to engage in particular types of entrepreneurial activities (Cardon et al., 2009; Murnieks et al., 2020; Murnieks et al., 2014). Empirical evidence indicates that passion influences entrepreneurial cognitions and behaviors. For instance, Drnovsek et al. (2016) find that founder CEOs' EP for

[3] While any firm can be entrepreneurial (Mintzberg & Waters, 1982), the term "entrepreneurial firm" has often been used to denote new ventures and technology firms (Hsu & Ziedonis, 2013; Manolova et al., 2010). Established SMEs are different, as these are businesses that have been in existence for at least 5 years and have 250 or fewer employees. These firms can be both high-technology as well as low-technology firms.

developing is positively related with technology ventures' growth both directly and through goal commitment. Likewise, Mueller et al. (2017) find that entrepreneurs' passion for developing affects venture performance through entrepreneurs' grit. Similarly, Strese et al. (2018) find that CEOs' passion for inventing is positively related with radical innovations in SMEs. In addition, Luu and Nguyen (2021) surveyed Vietnamese entrepreneurs and find that EP for developing has a positive effect on the firm's exploratory innovation strategies, whereas it has an inverted U-shaped effect on exploitative innovation strategies. While these studies provide valuable insights, they presume that certain types of passion have no impact—either positive or negative—on firm outcomes.

In contrast, some studies have emphasized the differential effects of the three EP domains on entrepreneurial behaviors and outcomes. In their study of German new ventures, Breugst et al. (2012) find that founders' EP for inventing and developing are positively related to employees' commitment, whereas EP for founding is negatively related to employees' commitment. Likewise, Cardon and Kirk (2015) find that new venture founders' EP for inventing and founding are positively related with entrepreneurial persistence, whereas EP for developing passion is not related. Similarly, in their study of Finnish new venture founders, Stenholm and Renko (2016) find that EP for inventing and developing are positively related with bricolage, and this enables venture survival, whereas EP for founding is not positively related to bricolage. These findings indicate that EP has a differential effect on entrepreneurial behaviors and others (e.g., employees). However, while valuable, they provide scant insights on how the three EP domains affect the performance of established firms and the contingences that influence this relationship. Research findings indicate that EP exists independent on venture age. For example, Cardon et al. (2013) find that EP for founding increases with venture age. Similarly, Collewaert et al. (2016) find that entrepreneurs' identity centrality does not change over time. This suggests that any of the three identity-based EP domains could motivate the actions of established SMEs' CEOs. Interestingly, recent research highlights the importance of fit between EP and activities necessary for the venture stage (Boone et al., 2020). This

suggests that passion-fueled activities that do not fit with the focal venture's requirements could negatively affect its performance.

Insert Figure 1 here
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3. Theoretical Framework and Hypotheses Development

The influence of CEOs' actions on firm performance is well established in the strategy and entrepreneurship literature (Baron, 2007; Herrmann & Nadkarni, 2014). This is likely more accurate in SMEs, a context in which CEOs are often the firm owners and play a more prominent role in decision making (Adomako et al., 2017; Chittoor et al., 2019; Lefebvre et al., 1997). Consistent with the literature that has emphasized the impact of individual characteristics on SME CEOs' cognition and behaviors, and consequently on SME performance (Hsu et al., 2013; Nadkarni & Herrmann, 2010), the EP literature has also stressed the relationship between entrepreneurs' passion and their cognitions and behaviors (Cardon et al., 2009), and consequently firm outcomes (Drnovsek et al., 2016; Strese et al., 2018).

Researchers have argued that role identity enables entrepreneurs to create a sense of who they are and that this shapes their cognition and behaviors (Hoang & Gimeno, 2010; Powell & Baker, 2014). Findings indicate that entrepreneurs take strategic actions that are consistent with their identities (Fauchart & Gruber, 2011). In particular, concerning EP, role identities lead to intense positive feelings when entrepreneurs engage in activities that are central to their self-identity (Cardon et al., 2009, 2013). In starting and operating a venture, the entrepreneur has to engage in several activities, and their level of engagement with these activities varies based on their EP (Cardon et al., 2013). For example, entrepreneurs with passion for founding display higher positive affect, engagement, and persistence when engaging in activities related to creating and launching new firms (Cardon et al., 2009, 2013; Cardon & Kirk, 2015).

As the venture progresses, entrepreneurs may have to deal with activities about which they are not passionate, and this could lead them to disengage from those activities. Similarly, the activities that entrepreneurs are passionate about may not be appropriate activities to focus on during a particular phase of a venture's life cycle. As EP triggers entrepreneurs' self-regulation processes and directs their attention toward the pursuit of corresponding entrepreneurial activities (Cardon et al., 2009), certain types of EP (for example, passion for founding) could likely lead entrepreneurs to pursue activities that are not aligned with the current phase of the focal venture's life cycle. For instance, CEOs of established SMEs with high passion for founding cannot engage in activities related with founding within their current venture context, which could motivate them to preserve their self-identity by engaging in these activities outside that context (for example, exploring other new business opportunities). This could not only lower their engagement with focal venture activities but also limit the resources available for focal venture activities. Such a lack of compatibility between EP-aroused activities and the entrepreneurial activities currently needed can adversely affect its performance.

Although the EP of CEOs shapes their cognition and behaviors, their ability to undertake EP-fueled activities in the context of a resource-constrained SME is likely to be influenced by its resources (Hessels & Parker, 2013; van Burg et al., 2012). In other words, EP might not lead to behaviors and actions consistent with entrepreneurs' self-identity if they do not have the necessary resources to pursue related activities. Several studies have emphasized the resource challenges SMEs experience and their impact on performance (Freeman et al., 1983; Lefebvre, 2020; Terziovski, 2010). Researchers argue that SMEs can overcome these challenges by either leveraging their financial slack (Voss et al., 2008) or by astutely managing their resources and utilizing creative techniques such as bootstrapping and bricolage (Adomako et al., 2018; Baker & Nelson, 2005; Ebben & Johnson, 2006). Financial slack allows firms to engage in strategic activities that they otherwise would not be able to pursue (Cheng & Kesner, 1997; Voss et al., 2008). This suggests that CEOs

who have access to financial resources either through excess capital (slack) or through their relationships with partners (e.g., banks, investors) will be in a better position to pursue activities that they are motivated to pursue (Hessels & Parker, 2013; Kiss et al., 2018). Likewise, the literature has emphasized how entrepreneurs can deploy creative resource strategies (for example, bricolage) to overcome resource constraints (Baker & Nelson, 2005; Stenholm & Renko, 2016). Indeed, Combs and colleagues (2011) find that resource flexibility enables firms to leverage such resources for varied activities, including new markets. Given that owner–CEOs possess significant power and autonomy, they will likely use available financial resources and resource flexibility to pursue EP-fueled activities.

In the next section, we develop our hypotheses by detailing the direct relationships between EP and SMEs' performance and the moderating effect of resources on this relationship. Instead of hypothesizing the varied mechanisms that could enable or hinder this relationship, we rely on the well-established literature on self-identity and affect (Baron, 2008; Fauchart & Gruber, 2011; Foo et al., 2009; Gruber & MacMillan, 2017), the two primary components of EP, to posit that EP leads to certain behavioral and cognitive actions that affect venture outcomes. The central argument underlying our model is that EP affects how entrepreneurs allocate attention and effort toward various activities, which is consistent with the conceptualization and operationalization of EP (Cardon et al., 2009, 2013).

3.1 Direct effects of EP on SME performance

It is well established in the EP literature that entrepreneurs engage in activities that arouse intense positive feelings and are central to their self-identity. Conversely, they disengage from activities that evoke negative emotions and divert them away from their salient identity (Cardon et al., 2009, 2013; Drnovsek et al., 2016; Mueller et al., 2017). Such (dis)engagement could lead to positive or negative outcomes depending on the compatibility between the EP-invoked activities and

the activities associated with a venture phase. For instance, entrepreneurs who have a high passion for developing experience a higher degree of positive feelings when engaging in activities such as training employees or refining business processes, as these activities are meaningful to their self-identity. They are more likely to focus their attention and effort on these venture development activities, and this consequently has a positive effect on venture performance. Indeed, researchers have theorized that passion for developing is important during the venture development phase, as it enables activities such as taking a product from inception to market adoption or building a venture over time, which positively affect venture performance (Drnovsek et al., 2016; Mueller et al., 2017). These researchers argue that entrepreneurs who have a passion for developing experience positive feelings when undertaking such entrepreneurial activities, and as these activities are central to their self-identity, they exert greater effort to preserve and strengthen these identities. Similarly, researchers have theorized that passion for founding and passion for inventing lead to engagement in distinct activities, such as activities related to starting a new business and developing new products, respectively. The findings from this literature indicate that passion for inventing is positively related to radical innovations in SMEs that are beyond the founding stage (Strese et al., 2018), whereas passion for founding is positively related to entrepreneurial intentions in nascent entrepreneurs (Biraglia & Kadile, 2017).

In the case of established SMEs, exploitation and exploration activities play a critical role and have a positive influence on SMEs' performance (Abebe & Angriawan, 2014; Terziovski, 2010; Voss & Voss, 2013). *Exploitation* involves activities such as refinement, efficiency, selection, and implementation, whereas *exploration* encompasses search, variation, experimentation, and discovery (March, 1991). This suggests that passion for developing and passion for inventing are compatible with established SMEs, as the entrepreneurial activities associated with these two EP domains are in sync with the exploitation and exploration processes, respectively. That is, the attention and effort of entrepreneurs who are passionate about developing are primarily focused on activities fundamental to

the exploitation process (for example, developing human capital, refining business processes), as these activities are central to their self-identity. Similarly, the attention and effort of entrepreneurs who are passionate about inventing are primarily focused on activities fundamental to the exploration process (for example, developing new products, refining existing products). This compatibility between the entrepreneurial activities associated with EP for developing and inventing with activities associated with established SMEs positively affects performance. Therefore, we posit that:

> ***H1a.*** *In established SMEs, CEOs' passion for inventing is positively related to performance.*
>
> ***H1b.*** *In established SMEs, CEOs' passion for developing is positively related to performance.*

In contrast, entrepreneurial activities associated with EP for founding are not compatible with established SMEs' activities (that is, they are not fundamental activities related to operating and managing established SMEs). While these activities are important during the start and launch phase of the venture (Cardon et al., 2009), the pursuit of such activities by CEOs could lead to misalignment between the activities pertinent to established SMEs and the activities the CEO pursues (for example, pursuing new business opportunities). This could lower entrepreneurs' engagement with activities of the focal venture. Furthermore, the process of starting a new venture is challenging, and entrepreneurs are bound to encounter obstacles (Fisher et al., 2017; Zott & Huy, 2007). To overcome these challenges, entrepreneurs need to invest significant effort in these activities. This can take a significant amount of SME CEOs' cognitive resources, leaving very little for other activities (Cardon et al., 2009). Moreover, this could affect employees' motivation and performance. Indeed, evidence indicates that employees' positive affect and affective commitment are lowered when they perceive their managers to have a passion for founding, in contrast to when they perceive them to have a passion for inventing and developing (Breugst et al., 2012). Taken together, CEOs' EP for founding will likely lower established SMEs' performance. Thus, we state:

H1c. *In established SMEs, CEOs' passion for founding is negatively related to performance.*

3.2 Moderating effect of perceived financial resource availability

Building on the assumptions of the liability of smallness (Aldrich & Auster, 1986; Freeman et al., 1983), scholars have highlighted the resource challenges SMEs experience. These scholars have noted that resource constraints hamper innovation in SMEs, as their limited resources prevent experimentation, which is necessary for the development of new products (De Carolis et al., 2009; Nooteboom, 1994; Voss et al., 2008). SMEs' lack of resources also impedes the development of appropriate organizational structure and routines, which are beneficial in recruiting and training human talent and enhancing business processes (Aragón-Sánchez & Sánchez-Marín, 2005; Musteen & Ahsan, 2013).

Researchers have highlighted the importance of financial resources, especially for firms' performance (George, 2005; Kiss et al., 2018; Lefebvre, 2020; Mishina et al., 2004; Nohria & Gulati, 1996). Although this research has typically looked at financial resource slack (Kiss et al., 2018; Mishina et al., 2004), CEOs of established SMEs can access financial resources from other sources too (Comeig et al., 2015). For instance, CEOs can access financial capital from sources such as profits from existing business operations and loans from financial institutions to undertake activities they are motivated to pursue. We describe financial resource availability as the ease with which CEOs can access financial resources to conduct business operations. CEOs who have access to financial resources can use these resources to pursue activities consistent with their EP. Indeed, Wiklund and Shepherd (2005, p. 81) state that "it is not so much the ownership of the financial resources that is important but the access to it," as CEOs could use these financial resources to pursue new opportunities and firm development activities.

As EP regulates SME CEOs' attention and effort toward associated goals, the perceived availability of financial resources enables SME CEOs who are passionate about inventing to pursue

search and experimentation activities. Such entrepreneurial activities are necessary to develop new products (Strese et al., 2018). Likewise, such perceived availability enables SME CEOs who have a passion for developing to engage in activities that are consistent with their self-identity (for example, refining business processes), which helps them to recruit and train employees, increase market share, etc. (Drnovsek et al., 2016). Such exploration and exploitation activities improve SMEs' performance (Terziovski, 2010). Thus, we state that:

> ***H2a.*** *In established SMEs, perceived availability of financial resources enhances the relationship between CEOs' passion for inventing and SMEs' performance such that the positive relationship between passion for inventing and SMEs' performance improves.*
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> ***H2b.*** *In established SMEs, perceived availability of financial resources enhances the relationship between CEOs' passion for developing and SMEs' performance such that the positive relationship between passion for developing and SMEs' performance improves.*

In contrast, perceived availability of financial resources will have a detrimental effect when the SME CEOs have a passion for founding. The increased tendencies of SME owners with EP for founding to engage in activities consistent with their self-identity combined with a perceived availability of financial resources could lead owner–CEOs to engage in activities that are not compatible with the activities pertinent to established SMEs. As the attention and effort of the CEOs shifts toward entrepreneurial activities that are central to their "founder" self-identity (Gruber & MacMillan, 2017; Ocasio, 1997), it could lead them to disengage from focal venture activities and pursue activities salient to their identity such as starting another business. When the attention of the CEO is distracted from the focal venture, it could lead to poor decisions. As Weick (2009, p. 850) stated, decision-makers tend to "misestimate, misunderstand, and mis-specify what they think they face" when their attention is unfocused. Furthermore, such actions will likely affect the motivation and performance of employees. Indeed, findings indicate that managers' EP for founding lowers employees' commitment and positive affect (Breugst et al., 2012). We suggest that perceived availability of financial resources will likely lead CEOs with EP for founding to pursue activities

consistent with this EP domain, and this will lead to a further decline in SMEs' performance. Therefore, we suggest that:

> ***H2c.*** *In established SMEs, perceived availability of financial resources exacerbates the relationship between CEOs' passion for founding and SMEs' performance such that the negative relationship between passion for founding and SMEs' performance further deteriorates.*

3.3 Moderating effect of perceived resource flexibility

While financial resource availability increases the resources available to SME CEOs to pursue EP-fueled activities, resource flexibility enables SME CEOs to use their existing resources for different EP-driven activities. However, not all resources can be applied to different activities. Indeed, Combs et al. (2013) state that rigid resources can be applied only for specific activities, while flexible resources can be applied for new and different activities. Resource flexibility refers to the extent to which a resource can be applied to a larger range of alternative uses, thus allowing firms to better switch their resources from one use to another use with ease (Combs et al., 2011; Sanchez, 1995). The literature on bricolage highlights the notion of resource flexibility that entrepreneurs perceive by illustrating the "make do" mindset that entrepreneurs apply to visualize existing resources in different combinations and applications (Baker & Nelson, 2005; Fisher, 2012; Henderson & Graebner, 2020; Welter et al., 2016). Specifically, this literature suggests that bricolage entails three main parts: refusing to be constrained by resource limitations, using resources for purposes that are different than they were developed for, and gathering resources that provide future flexibility (Phillips & Tracey, 2007; Senyard et al., 2011).

Although resource flexibility has many benefits, as espoused by the bricolage literature, resource flexibility in the context of resource-constrained SMEs can lead to undesirable outcomes. CEOs who perceive their firm's resources as flexible might be motivated to apply their resources for different activities that could result in spreading the limited resources too thinly. The risk of this occurring is higher for EP-driven activities, as entrepreneurs are strongly motivated to take actions

that preserve their self-identity (Cardon et al., 2009, 2013). The tendency of entrepreneurs to pursue activities central to the self-identity, along with perceived resource flexibility, will motivate those with EP for inventing and developing to engage in various exploration and exploitation activities, respectively. Such a strong preference for action can spread resources thinly and lead to suboptimal outcomes (Senyard et al., 2014, p. 215).

Further, stretching of firm resources over a wide number of activities might also require employees to do more. This could adversely affect their morale and performance, consequently lowering SMEs' performance (Carlson et al., 2006; Whyman & Petrescu, 2015). This is more likely to occur in developing countries, which is the context of our study, as they have weak institutions (Fainshmidt et al., 2018) and might be ill-equipped to safeguard the rights of employees (Berliner et al., 2015). In sum, such dependence on limited resources to contribute to more exploration and exploitation activities could lower SMEs' performance (Hessels & Parker, 2013; Price et al., 2013). Thus, we state that:

> ***H3a.*** *In established SMEs, perceived resource flexibility deteriorates the relationship between CEOs' passion for inventing and SMEs' performance such that the positive relationship between passion for inventing and SMEs' performance will weaken.*
>
> ***H3b.*** *In established SMEs, perceived resource flexibility deteriorates the relationship between CEOs' passion for developing and SMEs' performance such that the positive relationship between passion for developing and SMEs' performance will weaken.*

In the case of CEOs who have passion for founding, resource flexibility could lead to valuable resources being diverted from existing operations to pursue activities that are central to their "founder" self-identity (Cardon et al., 2009, 2013). In other words, resource flexibility could encourage CEOs to take reckless actions to preserve their self-identity such as pursuing new business opportunities instead of taking astute actions to conserve limited resources for focal venture activities. Such reallocation of valuable resources away from resource-constrained SMEs could affect their performance. Hence, we hypothesize that:

H3c. *In established SMEs, perceived resource flexibility exacerbates the relationship between CEOs' passion for founding and SMEs' performance such that the negative relationship between passion for founding and SMEs' performance will further deteriorate.*

4. Method

4.1 Sample and data collection

To test our hypotheses, we randomly selected 718 established SMEs from the Ghana Company Register database (Acquaah, 2007). The Ghana Company register is available from the Registrar General's Department, a Ghanaian agency responsible for registering all businesses in Ghana. We then contacted the firms by telephone to elicit their participation in our study. To be classified as "established SMEs," the SMEs had to meet the following criteria: (1) a minimum of five years' business operation experience, (2) no association with any company group (Wiklund & Shepherd, 2011), (3) ownership and control of the SME must belong to a sole entrepreneur or an entrepreneur with a majority stake in the business, (4) complete contact information of the owner–CEO and the finance managers, and (5) employment of a maximum of 250 full-time staff (Anderson & Eshima, 2013). Given that English is the official language of Ghana, we developed and administered the survey instrument in English. We decided to focus on SMEs that are at least five years old, as most businesses at this point have incurred significant financial and nonfinancial commitments to build their operations and are more likely to survive. Indeed, findings indicate that many new businesses fail within the first five years of operation (Shane, 2018). During our initial telephone meeting we confirmed the number of years the SME has been in operation and verified that the owner is the CEO.

We collected data in two waves with approximately 18 months between the end of our first survey wave (T1) and the start of the second survey wave (T2). Due to the challenges of collecting data in a developing country (Hoskisson et al., 2000), each wave took approximately four months. In the first wave, we contacted 718 SMEs located in three large cities (Accra, Kumasi, and Tamale) in

Ghana. We received responses from 327 CEOs, a response rate of 45.54 percent. We were unable to reach the CEOs of 122 SMEs, and 269 CEOs declined to complete the questionnaire, citing company policy. We hand-delivered the survey to the CEO, who had agreed to participate in our study when we contacted them by telephone. This survey was designed to capture data on EP domains and resource measures, and the questions were structured in random order to counter order effects. After discounting missing values, we obtained 295 usable responses, representing a response rate of 41.08 percent in T1. To gain confidence in the data, we investigated informant competency by capturing issues like knowledge about firm resources, information accuracy, and confidence in providing answers to the survey questions (Morgan et al., 2004). We obtained a mean score of 5.76 (SD = 0.78) for knowledge competency, 5.26 (SD = 0.67) for response accuracy, and 4.08 (SD = 1.30) for confidence in responding to questions.

In the second wave, only the finance managers of the 295 SMEs were contacted in person to capture performance measures. We used this approach due to common method variance issues associated with the cross-sectional design and to attenuate the respondents' ability and motivation to use responses to prior questions for subsequent responses (Chang et al., 2010; Podsakoff et al., 2003). Out of the 295 SMEs, 198 responded to the performance questionnaire. We subsequently dropped five SMEs after the second wave because upon further verification we found that their age was below five years. Hence, 193 usable responses across T1 and T2 were used for the analysis. This represents an effective response rate of 26.88 percent (i.e., [193/718] x 100).

On average, the SMEs had been in business for 18 years and employed 22 full-time workers. These SMEs represented two major industries: manufacturing (42 percent) and services (58 percent). To be confident that our analyses were not influenced by nonresponse bias, we examined whether the respondents who completed the survey differed from those who did not complete the survey. Accordingly, we conducted a one-way ANOVA and compared firm age, firm size, CEO's age, founding experience, and education. The results indicate that the respondents were not significantly

different from nonrespondents. Thus, nonresponse bias is not considered a serious threat to our results (Armstrong & Overton, 1977; Rogelberg & Stanton, 2007).

4.2 Measure of constructs

All our survey items were based on previous research. All the items were measured on a 7-point Likert scale with anchors ranging from 1 = strongly disagree to 7 = strongly agree. The individual items for multi-item constructs, their reliability and validity, and average variance extracted values are shown in Appendix 1.

Entrepreneurial passion: We used Cardon's passion scale to capture EP (Cardon et al., 2013). Using this approach, passion was disaggregated into three domains: inventing, founding, and developing. For each domain, we captured two subscales: identity centrality and positive feelings. The intense positive feelings subscale for each of the passion domains was measured with four items for passion inventing ($\alpha = 0.88$), three items for developing ($\alpha = 0.93$), and three items for founding ($\alpha = 0.86$). One item measured identity centrality for each of the inventing, developing, and founding constructs. The identity items were excluded from the confirmatory factor analysis (see Cardon et al., 2013; Cardon & Kirk, 2015 for a detailed discussion on this). To arrive at a final score for each of the passion domains, we multiplied the intense feelings score by the identity centrality item for each domain (Cardon et al., 2013; Cardon & Kirk, 2015). For example, to calculate a weighted score for passion for founding, we multiplied founder identity centrality by founder intense positive feelings.

Financial resource availability: A firm's financial resource availability ($\alpha = 0.93$) refers to the availability of financial capital or ease of accessing financial capital. We took five items from prior studies (Cooper et al., 1994; Wiklund & Shepherd, 2005).

Resource flexibility: We conceptualized *resource flexibility* ($\alpha = 0.85$) as the extent to which a firm can apply its resources to alternate uses with few or no challenges (Sanchez, 1995). A total of four items were used to capture a firm's resource flexibility.

SME performance: We used a five-item perceptual growth scale taken from previous studies (Acquaah, 2007; Anderson & Eshima, 2013) to capture SME performance (α = 0.90). Finance managers were asked to compare their companies' performance with other companies in the industry on five items: growth in employees, sales growth rate, profitability, market share growth, and overall company performance. The rationale for using perceived measures of performance was informed by the difficulty of obtaining adequate information about objective accounting measures in developing economies (Hoskisson et al., 2000; Malik & Kotabe, 2009). Although there are some problems with using perceptual measures, it has been established that managers' perception of performance or failure has critical managerial implications (Dess & Robinson, 1984). Moreover, subjective performance measures allow for comparison across industries and market contexts because these contextual differences can pose challenges when using objective data (Achtenhagen et al., 2010; Beard & Dess, 1981). Indeed, Singh and colleagues (2016), in their review of the organizational performance measurement literature, argue that subjective measures can be used to assess firm performance because it is challenging to find "consistent, reliable and comparable compatible objective data" (p. 214) on organizational performance across sectors.

Control variables: We included seven control variables to account for their influence on our research model. These were firm age, industry type, firm size, CEO's education, CEO's founding experience, CEO's age, and gender. Previous research indicates that firm age influences performance (Shane, 2003). Firm age was assessed by the number of years the company has been operational. Firm size was the number of full-time employees (Sheng et al., 2011). Industry type was captured by using a dummy: 0 = manufacturing and 1 = services (Wang, 2008). Besides, the educational background has been found to influence entrepreneurial activity (Brüderl et al., 1992). Accordingly, educational attainment was measured as 1 = high school, 2 = higher national diploma, 3 = bachelor's degree, 4 = master's degree, and 5 = doctoral degree. We included the CEO's age (number of years) to control for decreases in cognitive resources that may be associated with age (Kanfer & Ackerman,

2004). The founding experience was captured by asking the CEOs to state the number of previous firms they had founded (Hmieleski et al., 2013). We used this approach because it is likely that some learning takes place each time the entrepreneurs start a business (Zhao et al., 2005). Due to gender differences in access to financial resources (Carter & Brush, 2004), we controlled for gender in our analyses. We measured gender by using a dummy variable: 0 = male; 1 = female.

Insert Table 1 here

4.3 Validity and reliability assessment

To assess potential common method variance affecting the integrity of our analyses, two procedures were followed. First, we followed established practice (Podsakoff et al., 2003) and included a single common latent factor, which revealed the following model: χ^2/df = 1.49, RMSEA= 0.05; CFI = 0.98; NFI=0.97; SRMR=0.07. Comparing this model with the model excluding common method factor (χ^2/df = 1.44, RMSEA = 0.04; CFI = 0.98; NFI=0.96; SRMR=0.06), we found that the second model remained unchanged after integration of this idle factor. Additionally, all the items loaded much more strongly on their respective constructs than on the latent common method factor. Second, we followed Cote and Buckley (1987) and estimated three competing models: method, trait, and method–method models (Table 1). Under the method model, we allowed all the indicators to load on a single latent factor. Model 2 involved the estimation of a trait-only model. In this model, we allowed each indicator to load on its respective latent factor. Finally, in Model 3 we combined the method and trait models in one model. In this model, we established a single factor to link the indicators in the second model. The three models were compared to establish whether common method variance influenced our data. The results suggest that the second model and third model performed better than the first model. Moreover, the third model was not materially superior to the second model. Overall, we are confident in concluding that our data is free from common method variance.

The CFA results revealed that item loadings were in their hypothesized direction with positive and significant values (Appendix 1). This confirms the convergent validity of the constructs. We also found that the confidence intervals for constructs' correlation excluded 1.0 ($p < 0.05$). In addition, the AVE values were larger than the square root of the corrections. These findings confirm the discriminant validity of the constructs (Bagozzi & Yi, 2012).

5. Estimation Procedure and Results

We tested all the hypotheses using the moderated regression analysis. This approach is considered appropriate when dealing with configuration models (Cohen et al., 2003) and a suitable estimator in entrepreneurship studies (Anderson & Eshima, 2013). With this method, an interaction effect exists only if the interaction term significantly adds to the variance explained by the outcome variable over the main effects of the predictor variables (Jaccard & Turrisi, 2003). We also assessed normality using a Kolmogorov–Smirnov test (Massey, 1951). The result of our normality test supports the assumption of univariate normality. Moreover, we used the White test (White, 1980) to show that our data does not suffer from heteroskedasticity. Before estimating the regression models, all the continuous variables were mean-centered to prevent the potential multicollinearity associated with testing moderating hypotheses (Aiken & West, 1981). We then calculated the variance inflation factors (VIF). The largest VIF was 3.12, which is considerably below the suggested threshold of 10, suggesting that multicollinearity does influence our results (Hair et al., 1998). The interaction plots were created by using the mean-centered values (Dawson & Richter, 2006). Table 2 presents the correlations and descriptive statistics.

Insert Table 2 here

The results of the moderated regression analyses are presented in Table 3. In Model 1, we include all the control variables, while Model 2 enters the main effects variables. Hypothesis 1a proposed that passion for inventing would be positively related to SMEs' performance. Model 2

(Table 3) presents the results of this hypothesis. In line with our expectation, CEOs' passion for inventing significantly positively relates to SMEs' performance ($\beta = 0.25$, $p < 0.01$). Hence, hypothesis 1a is supported. In hypothesis 1b, we contended that CEOs' passion for developing would be positively related to SMEs' performance. This hypothesis is confirmed in Model 2 ($\beta = 0.27$, $p < 0.01$). In hypothesis 1c, we stated that CEOs' passion for founding has a negative, direct relationship with SMEs' performance. We found support for this hypothesis according to the negative regression coefficient for passion for founding ($\beta = -0.17$, $p < 0.01$).

Insert Table 3 here

Hypothesis 2a stated that the effect of CEOs' EP for inventing on SMEs' performance would be positively moderated by perceived financial resource availability such that when the CEOs perceive that they have easier access to necessary financial resources, the positive relationship between EP inventing and SMEs' performance will intensify. The results in Model 4 (Table 3) show that hypothesis 2a is not supported because the interaction between EP for inventing and perceived financial resource availability exerts a positive but nonsignificant effect on SMEs' performance ($\beta = 0.05$, *ns*). Hypothesis 2b proposed that perceived financial resource availability positively affects the relation between CEOs' EP for developing and SMEs' performance. We find support for this hypothesis in Model 5 ($\beta = 0.49$, $p < 0.01$). We note that the coefficient for the interaction variable does not necessarily suggest support for our moderator hypotheses, as the directionality of interactions must be assessed graphically (Hoetker, 2007). Thus, to facilitate interpretation of our results, we also plotted the interactions at ±1 s.d. using the mean-centered values (Cohen et al., 2003). As shown in Figure 2, passion for developing exhibits a negative relationship with SME performance under conditions of low financial resource availability, and displays a positive relationship with SME performance under conditions of high financial resource availability. Our interaction plot indicates that established SMEs' performance increases when CEOs have a high

passion for developing and perceive high financial resource availability. Hypothesis 2c proposed that perceived financial resource availability negatively affects the relationship between CEOs' EP for founding and SMEs' performance, such that when the CEOs perceive they have easier access to necessary financial resources, the negative relationship between EP for founding and SMEs' performance will further deteriorate. We confirmed this hypothesis in Model 6 ($\beta = -0.37$, $p < 0.01$). The interaction graph in Figure 3 demonstrates that passion for founding has a positive relationship with SMEs' performance under conditions of low financial resource availability, and exhibits a negative relationship with SMEs' performance under conditions of high financial resource availability.

Insert Figure 2 here

Insert Figure 3 here

Hypothesis 3a predicted that the positive linkage between CEOs' EP for inventing and SMEs' performance will be negatively affected by perceived resource flexibility. Hypothesis 3a did not receive support, as the results obtained (Model 7) show a nonsignificant negative regression coefficient for passion for inventing ($\beta = -0.04$, *ns*). Hypothesis 3b stated that resource flexibility negatively affects the relationship between CEOs' EP for developing and SMEs' performance. We tested this hypothesis in Model 8. The negative significant interaction term ($\beta = -0.46$, $p < 0.01$) lends support for hypothesis 3b. As shown in Figure 4, passion for developing has a positive relationship with SMEs' performance under conditions of low resource flexibility and exhibits a negative relationship with SMEs' performance under conditions of high resource flexibility. In hypothesis 3c, we proposed that perceived resource flexibility adversely affects the relationship between CEOs' EP for founding and SMEs' performance. According to the negative significant passion for founding–resource flexibility interaction term ($\beta = -0.29$, $p < 0.01$), this hypothesis is confirmed in Model 9. As shown in Figure 5, passion for founding has a positive relationship with

SMEs' performance under conditions of low resource flexibility and exhibits a negative relationship with SMEs' performance under conditions of high resource flexibility.

Insert Figure 4 here

Insert Figure 5 here
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6. Discussion and Implications

In this study, we used a resource contingency approach to develop our theoretical model and build on the insights of existing EP studies. We found that passion for inventing and passion for developing positively affect established SMEs' performance, while passion for founding adversely affects established SMEs' performance. Our findings extend the prior literature that examined the effect of particular EP domain on firm outcomes. For instance, Strese et al. (2018) examined the influence of CEOs' passion for inventing on radical innovation in SMEs, ignoring both passion for developing and passion for founding in their theoretical development and research design. Our findings also contribute to better understanding the contingencies that affect the relationship between EP and established SMEs' performance. Researchers have highlighted the resource challenges experienced by SMEs, and investigated the influence of resource availability (e.g., resource slack) and entrepreneurial behaviors (e.g. bricolage) on SMEs' outcomes (Baker & Nelson, 2005; Kiss et al., 2018). We draw on research from both the financial resource and bricolage literature to demonstrate the moderating effect of perceived financial resource availability and resource flexibility on the relationship between EP and established SMEs' performance, thereby integrating two distinct research streams. This enables us to address some of the tensions between financial capital availability, resource flexibility, and firm performance (Dolmans et al., 2014; Hoegl et al., 2008) and to highlight the moderating effect of perceived financial resource availability and resource flexibility on SMEs' performance.

6.1 Theoretical implications

This study makes four primary contributions to the existing literature. First, prior research has predominantly adopted a positive view of passion, which offers only a partial understanding of the effects of EP domains on venture outcomes (Drnovsek et al., 2016, Mueller et al., 2017). Our study provides a finer conceptualization of passion by considering how EP can have both positive and negative effects on established SMEs' performance. By putting forth the argument that EP affects how entrepreneurs allocate attention and effort toward various activities, we show that the (in)compatibility between the activities promoted by distinct EP domains and the activities associated with a venture phase could result in entrepreneurs (dis)engaging with venture activities. We elucidate how passion for developing and inventing have a positive influence, while passion for founding has a negative influence on established SMEs' performance. Our findings complement the prior literature that found differential effects of EP on entrepreneurial behaviors and outcomes (e.g., Cardon & Kirk, 2015). In particular, Breugst et al. (2012) find that EP for inventing and developing increases employee commitment, whereas EP for founding decreases employee commitment. This provides further explanation for the differential effects of EP on established SMEs' performance that we find in our study. Our findings emphasize the importance of investigating the three EP domains irrespective of the venture stage.

The second contribution is the use of resource contextual variables as moderators of the EP–SME performance relationship to gain a better understanding of the conditions under which EP has a positive effect on performance. In particular, the literature has highlighted the resource challenges that SMEs experience and these challenges' impact on performance (Nooteboom, 1994; Terziovski, 2010). While research findings indicate that SMEs utilize creative techniques to accumulate resources and perform venture activities such as bricolage, bootstrapping, and leadership-based contextual ambidexterity (Baker & Nelson, 2005; Ebben & Johnson, 2006; Kammerlander et al., 2015), much of the attention in this literature has focused on the individual characteristics of

entrepreneurs rather than on the attributes of the resources. In other words, it is not clear from this literature if and how the characteristics of the resources enable or constrain entrepreneurs' engagement in activities that are motivated by their EP. Our examination of two distinct moderators—*financial resource availability* (that is, ease of accessing financial capital) and *resource flexibility* (that is, ease with which resources can be applied to alternate uses)—enables us to gain a deeper understanding of the contextual factors that impact the EP–SME performance relationship. For instance, our findings indicate that passion for developing exhibits a positive relationship with SMEs' performance under conditions of low resource flexibility and shows a negative relationship with SMEs' performance under conditions of high resource flexibility. As individuals with EP for developing are more likely to engage in bricolage (Stenholm & Renko, 2016), resource flexibilities further enable this process. This suggests that CEOs with passion for developing might stretch SMEs' limited resources too thinly, which could adversely affect firm performance. Similarly, Stenholm and Renko (2016) find that EP for inventing is positively related to bricolage, whereas EP for founding is not positively related to bricolage. We find that passion for founding displays a positive relationship with SMEs' performance under conditions of low resource flexibility and shows a negative relationship with SMEs' performance under conditions of high resource flexibility. This suggests that a closer examination of the relationships among resource flexibility, bricolage, and firm performance is needed in various contexts. Our findings are also consistent with the literature that has highlighted the benefit of resource constraints (Hoegl et al., 2008; Weiss et al., 2011) and the negative influence of high bricolage (Senyard et al., 2014).

Furthermore, the insights of our study help in resolving the tensions related to slack resources. For instance, researchers have highlighted the importance of financial resources, especially for firms' performance (George, 2005; Kiss et al., 2018; Mishina et al., 2004; Nohria & Gulati, 1996). However, findings from this research stream present a mixed view on the effect of financial resources on firm performance (Miao et al., 2017). Some research findings indicate that

financial resources have a positive effect on firm growth (Cooper et al., 1994), whereas other findings suggest that financial resources are not related to growth (Shrader & Simon, 1997). Our findings indicate that resource availability has a varying effect on SMEs' performance. We find that passion for developing shows a negative relationship with SME performance under conditions of low financial resource availability and exhibits a positive relationship with SME performance under conditions of high financial resource availability. In contrast, we find that passion for founding displays a positive relationship with SMEs' performance under conditions of low financial resource availability and shows a negative relationship with SMEs' performance under conditions of high financial resource availability. This complements the SME literature that explicates the relationship between the availability (or lack) of resources and the type of activities SMEs pursue (Hessels & Parker, 2013; van Burg et al., 2012; Welsh & White, 1981). In sum, the insights of our study shed light on how the nexus between resources and EP influences SMEs' activities. Interestingly, we do not find significant results for the interactions between passion for inventing and perceived resource availability and resource flexibility. These nonsignificant results could be due to our study context. Thus, investigating these results in the context of different countries and industries could further enhance our understanding of the relationship between the three EP domains and firm performance.

Third, our study illustrates the relevance of EP in the context of established firms. The extant literature has primarily examined the context of young firms and technology firms, assuming that such entrepreneurial contexts are apt for examining the relationships between EP domains and firm outcomes. However, evidence indicates that passion for founding increases with venture age (Cardon et al., 2013) and that identity centrality persists over time (Collewaert et al., 2016). Consistent with these findings, we find evidence that CEOs of established SMEs can be fueled by any type of EP. For instance, some CEOs may have high EP for developing and engage in activities to enhance the SMEs' routines to improve performance. Likewise, other CEOs may have high EP for inventing and engage in new product development activities to improve their firm's performance. CEOs could also

have high EP for founding, and these individuals may seek and pursue new entrepreneurial opportunities to increase their wealth.[4] Through this, we address the call to examine the effect of three EP domains on established SMEs' performance (Newman et al., 2021).

Fourth, our study utilizes data from an emerging sub-Saharan economy—Ghana. Entrepreneurship in emerging economies remains extremely under researched, particularly for countries from the continent of Africa. Entrepreneurship in developing countries is different from that in developed countries. For instance, the lack of supporting institutions and widespread corruption in developing countries such as Ghana presents unique challenges to entrepreneurs (Ahsan et al., 2021; Adomako et al., 2021). It is incumbent upon researchers to examine entrepreneurship in these contexts as many African countries are taking initiatives to improve their economic conditions. For example, the Ghanaian government introduced initiatives to reward firms based on their financial performance to achieve the goal of raising the country's economic condition by 2020 (Julian & Ofori-Dankwa, 2013). By examining firms beyond North America and Europe, we contribute toward enhancing the generalizability of entrepreneurship theories and findings.

6.2 Practical implications

Our findings offer several valuable insights into SMEs' CEOs. First, we push forward the notion that EP affects the allocation of attention and effort of CEOs. We suggest that CEOs of established SMEs with passion for founding should recruit managers to fully handle the operations of the firm to overcome cognitive resource constraints. While SMEs' CEOs may assume that they will be able to effectively manage both the activities of the established SME as well as their EP-fueled activities, a significant amount of research has highlighted the cognitive challenges CEOs experience in managing different activities (Eggers & Kaplan, 2009; Kammerlander & Ganter, 2015). Hiring

[4] While CEOs of SMEs, in general, play a critical role in developing and implementing strategic activities (Ling et al., 2008), CEOs who are also owners of the SMEs wield greater power (Chittoor et al., 2019). All the SMEs in our sample are led by owner–CEOs.

skilled and experienced managers could enable CEOs to pursue EP-fueled activities, especially when these activities are misaligned with venture activities, as well as ensure that performance of the focal venture is sustained. Second, established SMEs' CEOs who can develop a relationship with sources of capital are more likely to attain higher performance. Establishing relationships with resource providers could help SMEs overcome resource challenges and achieve their objectives (Hessels & Parker, 2013). Third, CEOs should be cautious of spreading their limited resources too thin, as that can adversely affect the performance of the focal venture. Stretching resources to pursue several activities can reduce the impact of these resources as well as adversely affect employees (Carlson et al., 2006; Senyard et al., 2014). Furthermore, the insights of our study point to the importance of focusing on the right type of passion. Depending on the stage at which they are investing, angel investors might find it beneficial to assess entrepreneurs' passion for the activities important at that stage rather than looking at the general passion displayed during business plan presentation (Chen et al., 2009) or focusing on preconceived categorizations of passion as either harmonious or obsessive (Murnieks et al., 2016). Finally, by illustrating the differential effects of EP domains, we caution against adopting a skewed view of passion and emphasize the importance of presenting a complete picture to entrepreneurs and other stakeholders (for example, investors).

7. Limitations and Future Research

Despite the unique insights provided by our study, some limitations and questions need to be addressed in future research. First, although we adopted a time-lagged study design by collecting data in two phases to better understand the relationships among EP, resource availability, resource flexibility, and SMEs' performance, we do not know to what extent this is impacted by SMEs' prior performance. By collecting prior performance information and collecting data over some time, future researchers could provide a deeper understanding of the temporal dynamics between passion, resources, and venture performance. Second, our study sample focuses on established SMEs, which

limits our ability to fully investigate the evolution of passion from the early life-cycle stage of the firm to the mature stage (Collewaert et al., 2016; Gielnik et al., 2015). Future researchers can extend the findings of our study by conducting a longitudinal analysis of early-stage ventures and contrasting those findings with a longitudinal study of late-stage ventures. Third, based on the study of Cardon et al. (2009), we assumed that CEOs experience three sources of passion: passion for founding, passion for inventing, and passion for developing. We did not ask our survey respondents whether they experience other types of passion. Recent studies indicate that entrepreneurs have additional sources of passion (Cardon et al., 2017) and nonentrepreneurial passion (Huyghe et al., 2016). It is also important to note that two dominant theoretical frameworks—the dualistic model of passion (Vallerand et al., 2003) and the identity-based model of passion (Cardon et al., 2009, 2013)—have been employed to examine passion in the entrepreneurship literature (Murnieks et al., 2020; Murnieks et al., 2014). While we adopt Cardon and colleagues' framework in developing our theoretical model because it is better suited for examining how entrepreneurs' passion for certain entrepreneurial activities (for example, founding) affects entrepreneurs' cognitions and behaviors, future researchers could complement our study by integrating it with obsessive and harmonious aspects of passion. Such research could further enhance our understanding of the conditions under which EP leads to negative outcomes (Newman et al., 2021; Pollack et al., 2020). Further, researchers can also investigate if the findings hold across different domains, as recent research indicates that domain passion positively affects entrepreneurial activities (Milanesi, 2018).

Furthermore, our measures for financial resource availability and resource flexibility could be further enhanced. While we broadly captured resource factors (financial resource slack and resource flexibility) that are important to SMEs, we did not capture which resources CEOs consider critical for the firms' operations (for example, patents, financial capital, or human capital) and as a result did not individually assess each of the resources critical to SMEs. Future research could address this limitation by assessing the availability and flexibility of each resource to gain a more nuanced

understanding of the influence of resources on the relationship between passion and SMEs' performance. Finally, while our study setting enabled us to gather insights on entrepreneurial activities in an understudied context, teams are less prevalent in such a context due to the lack of supporting institutions (Ofori-Dankwa & Omane-Antwi, 2015). The lower protection that such environments provide in the event of team conflict pushes entrepreneurs to pursue entrepreneurial initiatives independently (that is, solo ventures). This prevented us from examining how team entrepreneurial passion affects established SMEs' performance (Boone et al., 2020; de Mol et al., 2020; Santos & Cardon, 2019). Future research could address this limitation by examining our theoretical model in a different context.

In conclusion, we believe that our study makes important contributions to the passion, SME, and broader entrepreneurship literature. Our study investigates the direct effects of EP on established SMEs' performance and finds that EP for inventing and passion for developing have a positive effect on SMEs' performance, while passion for founding has a negative effect. In doing so, we show that passion has both positive and negative effects on SMEs' performance. Furthermore, our study finds that the relationship between EP and SMEs' performance is differentially moderated by financial resource availability and resource flexibility.

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Figure 1. The conceptual model of the study

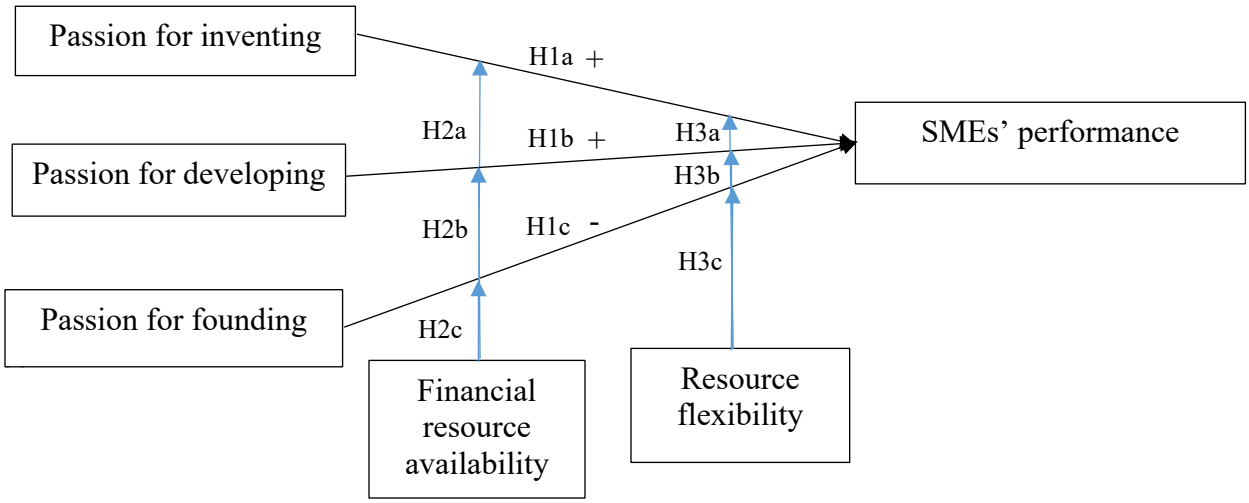

Figure 2. Interaction Effect of Passion for Developing with Financial Resource Availability on SME Performance

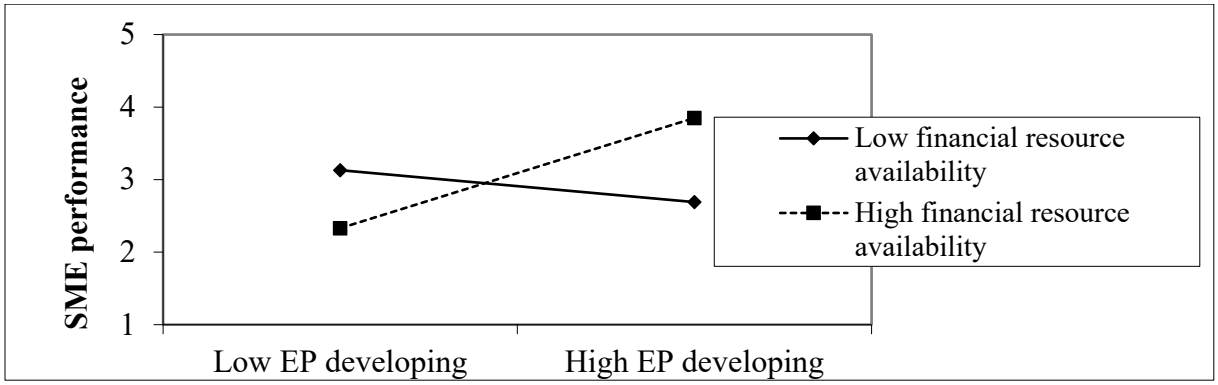

Figure 3. Interaction Effect of Passion for Founding with Financial Resource Availability on SME Performance

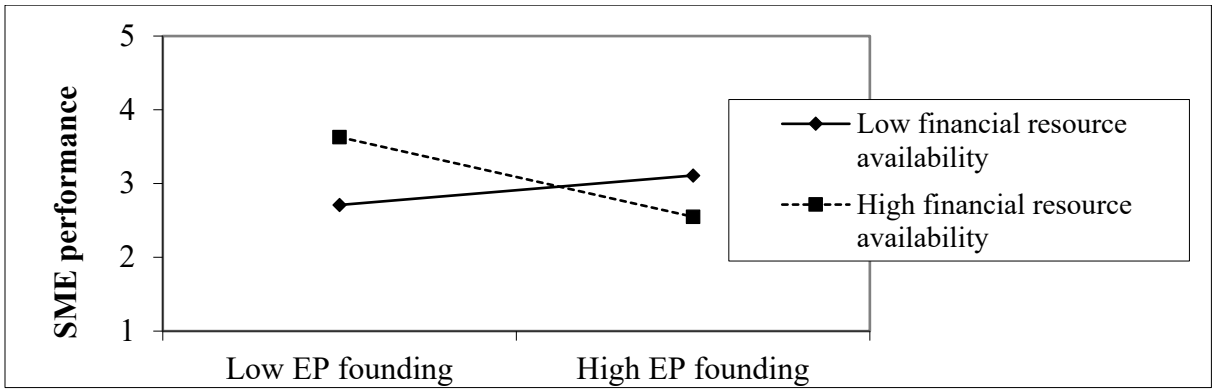

Figure 4. Interaction Passion for Developing and Resource Flexibility on SME Performance

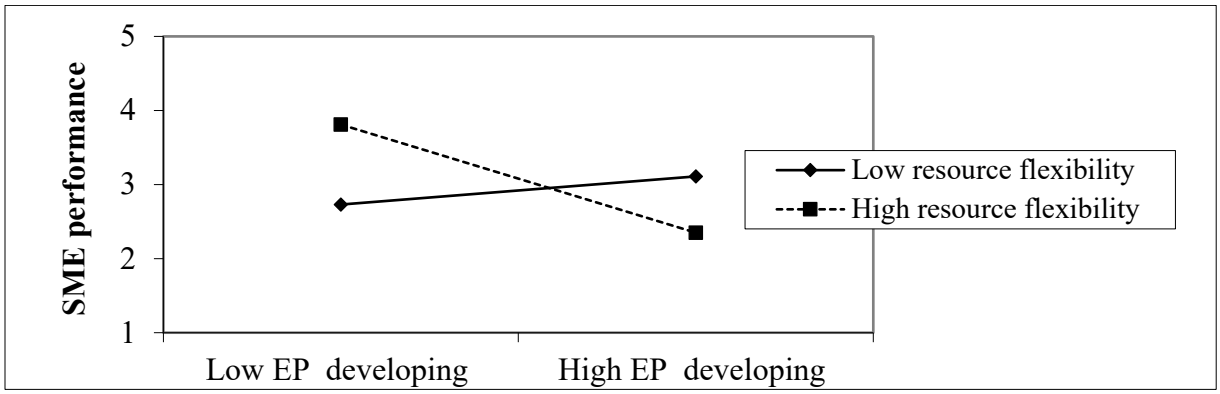

Figure 5. Interaction of Passion for Founding and Resource Flexibility on SME Performance

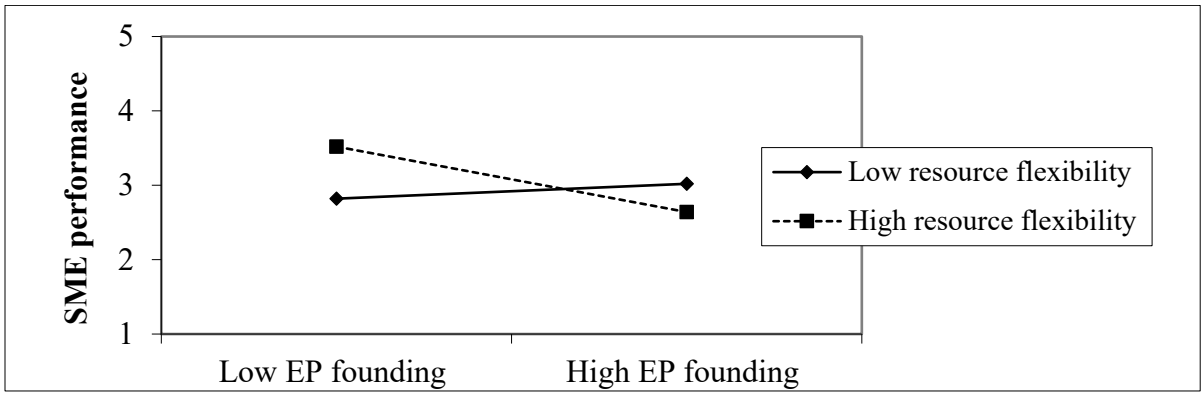

Table 1. Common Method Bias Nested Models

Model	χ^2	df	χ^2/df	RMSEA	CFI	NNFI	GFI	AGFI	NFI	SRMSR
M1: Method	1299.30***	1207	1.07	0.19	0.42	0.22	0.55	0.23	0.56	0.11
M2: Trait	2019.01***	967	2.08	0.06	0.93	0.92	0.90	0.91	0.90	0.08
M3: Trait-method	1920.49***	909	2.11	0.05	0.96	0.98	0.97	0.96	0.96	0.06

Note: *** $p < 0.001$; RMSEA = root mean square error of approximation; CFI = comparative fit index; NNFI = non-normed fit index; GFI = goodness of fit index; AGFI = parsimony goodness of fit index; NFI = normed fit index; SRMSR = standardized root mean square error

Table 2. Descriptive Statistics and Correlations

	Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1.	Firm size (employees)	22.02	11.92												
2.	Firm age	18.36	8.32	-0.09											
3.	Industry dummy	--	--	-0.05	-0.05										
4.	Gender	--	--	0.00	0.01	0.08									
5.	CEO age	56.82	9.78	0.04	0.04	0.10	-0.03								
6.	Education	2.51	1.04	0.16*	-0.15*	0.15*	0.13	0.04							
7.	Founding experience	1.07	1.13	0.13	0.08	-0.06	-0.06	0.11	0.05						
8.	Financial resource availability	4.35	0.93	-0.03	0.00	0.10	0.07	0.11	0.09	-0.01					
9.	Resource flexibility	4.39	0.73	-0.02	-0.01	0.04	-0.04	0.07	0.09	-0.08	0.34**				
10.	EP inventing	31.42	6.62	-0.08	-0.09	0.15*	-0.01	-0.02	0.14	-0.04	0.15*	0.16*			
11.	EP founding	31.29	6.70	-0.09	-0.16*	0.21**	0.03	-0.09	0.13	0.22**	0.16*	-0.07	0.34**		
12.	EP developing	32.51	6.68	-0.14	0.25**	0.23**	0.06	-0.04	0.19**	0.05	0.25**	0.04	0.46**	0.32**	
13.	SME performance	5.01	0.69	-0.09	0.05	-0.06	0.07	0.03	0.09	0.02	0.09	0.08	0.42**	-0.29**	0.26**

N = 193; * $p < 0.05$; ** $p < .01$ (2-tailed test); S.D. = standard deviation

Table 3. Regression Results for Hypotheses Tests

	Dependent variable: SMEs' performance (N = 193)										
Independent variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Results summary
Firm age	–0.04	–0.05	–0.05	–0.04	–0.04	–0.05	–0.03	–0.05	–0.04	–0.04	
Firm size	–0.04	–0.04	–0.03	–0.02	–0.04	–0.03	–0.01	–0.03	-0.05	–0.03	
Industry	–0.08	–0.09	–0.10	–0.10	–0.11	–0.11	–0.09	–0.11	–0.10	–0.09	
Education	0.11	0.11	0.12	0.12	0.11	0.10	0.09	0.11	0.12	0.11	
Gender	0.09	0.10	0.11	0.09	0.09	0.10	0.07	0.08	0.09	0.10	
CEO age	0.03	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.03	0.04	
Founding experience	0.03	0.03	0.04	0.04	0.05	0.04	0.05	0.05	0.04	0.04	
Direct effects											
H1a: Passion for inventing (PFI)		0.25**	0.23**	0.27**	0.26**	0.27**	0.27**	0.28**	0.27**	0.26**	Supported
H1b: Passion for developing (PFD)		0.27**	0.27**	0.30**	0.32**	0.33**	0.29**	0.30**	0.28**	0.26**	Supported
H1c: Passion for founding (PFF)		–0.17**	–0.16**	–0.18**	-0.19**	–0.20**	–0.21**	–0.21**	–0.22**	–0.18**	Supported
Financial resource availability (FRA)			0.09	0.10	0.11	0.11	0.12	0.11	0.12	0.10	
Resource flexibility (RF)			0.08	0.09	0.11	0.12	0.12	0.12	0.10	0.09	
Moderating effects											
H_{2a}: PFI x FRA				0.05						0.04	Not supported
H2b: PFD x FRA					0.49**					0.43**	Supported
H2c: PFF x FRA						–0.37**				–0.36**	Supported
H3a: PFI x RF							-0.04			–0.03	Not supported
H3b: PFD x RF								–0.46**		–0.47**	Supported
H3c: PFF x RF									–0.29**	–0.30**	Supported
Model fit statistics											
F	0.13	4.69**	2.72*	2.68*	8.19**	7.61**	2.57*	7.65**	7.34**	7.39**	
R^2	0.12	0.14	0.17	0.18	0.22	0.25	0.27	0.29	0.32	0.31	
ΔR^2	-	0.02	0.03	0.01	0.04	0.03	0.02	0.02	0.03	0.01	
Largest VIF	1.15	1.19	2.01	2.45	3.06	1.19	2.31	3.12	1.11	1.10	

N = 193; * $p < 0.05$; ** $p < 0.01$; standardized coefficients are shown.

Appendix 1. Constructs, Measurement Items, and Reliability and Validity Tests

Item description	Loadings (t-values)
Passion for inventing: α = 0.88; CR = 0.89; AVE = 0.69	0.78(1.00)
Ipf_inv1: It is exciting to figure out new ways to solve unmet market needs that can be commercialized.	0.85(16.29)
Ipf_inv2: Searching for new ideas for products/services to offer is enjoyable to me.	0.95 (22.12)
Ipf_inv3: I am motivated to figure out how to make existing products/services better.	0.89 (19.21)
Ipf_inv4: Scanning the environment for new opportunities really excites me.	0.87 (17.19)
Ic_inv1: Inventing new solutions to problems is an important part of who I am.	-
Passion for founding: α = 0.86; CR = 0.87; AVE = 0.71	
Ipf_fnd1: Establishing a new company excites me.	0.89 (1.00)
Ipf_fnd2: Owning my own company energizes me.	0.82 (17.40)
Ipf_fnd3: Nurturing a new business through its emerging success is enjoyable.	0.90 (20.14)
Ic_fnd1: Being the founder of a business is an important part of who I am.	-
Passion for developing: α = 0.93; CR = 0.95; AVE = 0.68	0.91(1.00)
Ipf_dev1: I really like finding the right people to market my product/service to.	0.78(14.19)
Ipf_dev2: Assembling the right people to work for my business is exciting.	0.89(16.85)
Ipf_dev3: Pushing my employees and myself to make our company better motivates me.	0.78(13.56)
Ic_dev1: Nurturing and growing companies is an important part of who I am.	-
Financial resource availability: α = 0.93; CR = 0.95; AVE = 0.61	
-We are satisfied with the financial capital available for the business operations.	0.81 (1.00)
-Our company has easy access to financial capital to support its business operations.	0.87 (17.20)
-Our business operations are better financed than our key competitors' operations.	0.94 (21.32)
-If we need more financial assistance for our business operations, we can easily obtain it.	0.93 (20.78)
-We are able to obtain financial resources at short notice to support business operations.	0.78(12.14)
Resource flexibility: α = 0.85; CR = 0.87; AVE = 0.54	
-The main resources are widely used in product development, manufacturing, sales, etc.	0.70(1.00)
-Difficulty in switching from one use of the main resources to an alternative use is low.	0.87 (17.33)
-Time of switching from one use of the main resources to an alternative is low.	0.79 (13.59)
-Cost of switching from one use of the main resources to an alternative is high (r).	0.90 (20.16)
SME performance: α = 0.90; CR = 0.91; AVE = 0.66	
-Growth in employee	0.85 (1.00)
-Growth in market share	0.86 (16.19)
-Profitability	0.94(21.11)
-Sales growth	0.93 (20.84)
-Overall company performance	0.88(17.19)

Note: r = reverse coded. Ipf = intense positive feelings; Ic = identity centrality; inv = inventing; fnd = founding; and dev = developing. Following methodological prescriptions (Cardon et al., 2013; Cardon & Kirk, 2015), we did not include the identity centrality items (Ic_inv1, Ic_fnd1, and Ic dev1) in the CFA.