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PRIOR PERFORMANCE AS DRIVER OF ENTREPRENEURIAL PASSION

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Prior Performance as Driver of Entrepreneurial Passion

Abstract

The entrepreneurial passion has been intensively studied as a driver of other aspects of entrepreneurship. However, research about the drivers of entrepreneurial passion remains unexplored. We propose that the prior venture performance is positively associated with entrepreneurial passion. Moreover, we argue that this relationship is moderated by psychological flexibility. We used a sample of 171 Portuguese start-ups to test the effect of employment growth (between 2014 and 2018) in entrepreneurial passion (2019), and the moderating role of psychological flexibility. Our findings indicate that the relationship between employment growth and harmonious passion is moderated by the psychological flexibility.

Key Words: Entrepreneurial Passion, Prior Performance, Psychological Flexibility

Introduction

The topic of entrepreneurial passion has drawn scholars' attention for the last twenty years (Cardon, Wincent, Singh, & Drnovsek, 2009). Entrepreneurial passion has been associated with critical aspect on the startup scope such as increased motivation (Bierly, Kessler, & Christensen, 2000), opportunity recognition and execution (Shane, Locke, & Collins, 2003), idea development (Shane, Locke, & Collins, 2003), enhanced employees' engagement and effort (Huy & Zott, 2007).

Prior empirical evidence has also highlighted the effect of entrepreneurial passion on ventures' performance (Baum, Locke, & Smith, 2001; Baum & Locke, 2004; Murnieks, Mosakowski, & Cardon, 2014). For instance, Drnovsek, Cardon and Patel (2016) studied the direct and indirect effects of entrepreneurial passion on growing technology ventures. Their findings suggest that positive feelings of entrepreneurial passion have a direct positive influence on venture's growth and an indirect positive effect mediated by goal commitment (Drnovsek et al., 2016).

Despite the growing interest on the entrepreneurial passion – performance relationship, researcher in this topic remains in its infancy. An important research made by Gielnik, Spitzmuller, Schmitt, Klemann and Frese (2014) analyzed the influence the entrepreneur's effort has on entrepreneurial passion. Their findings demonstrated that entrepreneurial effort predicted changes on entrepreneurial passion (Gielnik, 2014). They also discovered that new venture progress mediates the effect effort has on passion, and that same mediation is moderated by free choice (Gielnik, 2014).

The authors only used self-perception measures, which are useful when considering emotional and attitudinal variables because, according to Bem (1972), people tend to evaluate their emotions and attitudes through the process of observing themselves performing an activity

and then taking conclusions about how they felt when performing that same activity, making the process similar to how an outside observer would evaluate a person's emotions and attitudes (Gielnik et al., 2014). However, self-perception measures might limit the understanding about entrepreneurial performance because this type of self-report surveys leaves a large window for biased responses (Moskowitz, 1986), being biased defined as a systematic tendency to answer to a set of questions based on something beyond the content of the question (Paulhus, 1991). This bias will lead to lack of credibility and consequently harm the validity of the results retrieved from this measure (McDonald, 2008), mainly when it comes to a topic as performance of the own company because it is something that belongs to the entrepreneur, making it more likely to see the performance of the venture more distorted. Therefore, it is recommended to use objective measurement for entrepreneurial performance because it is believed to be the best representation of the "real" world, thus more accurate and minimizing discretion (Meier & Brudney, 2002). To achieve data with such characteristics, it is crucial to do a precise assessment of a specific dimension of performance to guarantee the data gathered is impartial and independent (Andrews, Boyne, & Walker, 2006). By having it guaranteed, the reliability and credibility of this data will be larger than if analyzed through a perception measure of entrepreneurial performance. Considering, there is an opportunity to study the influence entrepreneurial performance might have on entrepreneurial passion. To do so, we will explore the direct effect the number of employees' growth, as an objective prior performance indicator on entrepreneurial passion.

Also, we argue that the relationship between prior performance and entrepreneurial passion is moderated by entrepreneurs' psychological flexibility. When evaluating the effect of the growth of the number of employees on harmonious passion, we expect to find a positive relationship between them on both the moderated and non-moderated scenarios. The effect of the growth of the number of employees on obsessive passion is expected to be negative on both

the moderated and non-moderated cases. Further explanations regarding these hypotheses and the variables will be given in the Literature Review section.

We examined these hypotheses by matching the information of the number of employees' growth with the answers given to a survey. This survey was responded by 171 entrepreneurs, and it contained questions regarding harmonious and obsessive passion, and psychological flexibility.

This research will contribute to the literature both in theory and practice. First, our paper is one of the few studies in which alterations of entrepreneurial passion are predicted as a result of the variation in one other aspect of entrepreneurship, which in our case is the prior entrepreneurial performance. Most of studies realized until today evaluate the influence several aspects of entrepreneurship would have in entrepreneurial passion (Cardon, Glauser, & Murnieks, 2017). Second, our method of analysis is also different. While Gielnik et al. (2014) only used perception measures to evaluate entrepreneurial performance, we will use an objective measure of entrepreneurial performance to have an unbiased variable, which in our research is the growth of the number of employees, to then evaluate its influence on the perceptions measures retrieved from the answers given to the survey built regarding entrepreneurial passion and psychological flexibility.

Literature Review

The Relationship Between Prior Performance and Passion

According to Venkatraman and Ramanujam (1986), and Panigyrakis and Theodoridis (2007), both financial and non-financial indicators should be included on the analysis because, mainly for small firms, they are seen as complementary.

However, since both indicators measure the venture's growth, we opted for only including the employment growth because this indicator seem to be supported by several authors as a

very appropriate measure for small firms that do not operate for too long (Campbell, 2008; Brüderl & Preisendörfer, 1998; Reid & Smith, 2000), which fits the definition of start-up. Beyond that, the growth of the startup size is usually associated to a reduction of the entrepreneur's ability to control the organization (Markman & Garnter, 2002), which might influence the entrepreneurial passion felt by the entrepreneur. Hence, since the growth on the number of employees is one of the main measures of entrepreneurial growth (Greiner, 1998), then it is likely to be related to explain this reduction of ability to control the startup when the size of the venture grows. This makes the growth of the number of employees an even more relevant variable to evaluate its influence on entrepreneurial passion.

According to Cardon et al. (2009), entrepreneurial passion is conceptualized as consciously accessible and intense positive feelings experienced when entrepreneurs feel engaged on activities and tasks relevant and meaningful to their self-identity. However, despite entrepreneurial passion being associated to having a positive influence on entrepreneurial performance, there is a point from which it might even harm the performance of an entrepreneur, and consequently the start-up. This moment can be characterized by the shift from a harmonious passion to an obsessive passion, and it is relevant to consider because there might be a difference on the performance of start-ups whose entrepreneurs have harmonious or obsessive passion for their businesses. Research by Vallerand, Mageau, Ratelle, Léonard, Blanchard, Koestner, Gagné, and Marsolais (2003) allowed to find a definition for both harmonious and obsessive passion, the aspects that distinguish one passion from the other, and the type of relationship existent between them.

Harmonious passion (HP) is defined as the "autonomous internalization" of an "activity into the person's identity" (Vallerand et al., 2003), which is pretty similar to the concept of entrepreneurial passion suggested by Cardon et al. (2009). An autonomous internalization is the possibility individuals have to choose freely the activities that are relevant to them without

any contingencies influencing this decision, which will produce the required motivation for the individual to engage in the activity chosen (Vallerand et al., 2003). Despite the activity occupying a significant portion of the person's identity, this passion is defined as "harmonious" because the person finds a balance between performing the activity and its other aspects of the individual's life without over occupying its identity (Vallerand et al., 2003). On the other hand, obsessive passion (OP) is a result of a "controlled internalization of the activity into one's identity", coming this internalization from contingencies inherent to the activity itself that contain feelings of intrapersonal and/or interpersonal pressure, or from an engagement that becomes uncontrollable (Vallerand et al., 2003). Therefore, even though a person is passionate about the activity, it ends up being engaged in a disproportionate way considering the person's identity, making it conflict with the other activities of an individual (Vallerand et al., 2003).

The greatest contrast found between these definitions is regarding the flexibility an individual experience during task engagement. Meaning that, if a person feels harmonious passion for a given activity, the engagement in it will be done in a more flexible manner due to the autonomous internalization of the task, allowing for a task engagement that is healthier for the individual, and generate positive affection outcomes (Vallerand et al., 2003). On the other side, if a person feels an obsessive passion for a given activity, the controlled internalization makes a person engage in it even when they do not want to, thus making the task engagement more conflicted and rigid. This rigid engagement takes away the positive affective outcomes that should be experienced as in the case of harmonious passion (Vallerand et al., 2003).

Due to the differences in the harmonious and obsessive passion concepts, a separate analysis must be conducted. Considering the definitions proposed by Vallerand et al. (2003), we can conclude that harmonious passion is a type of positive emotion, while obsessive passion is perceived as a negative emotion. Regarding prior performance, literature suggests that achieving concrete outcomes during the process to achieve the ultimate goal of the venture has

positive effects on people's emotions (Weick, 1984), being this effect powerful (Amabile & Kramer, 2011). Therefore, it is reasonable to expect that an increase on the number of employees will have a positive effect on the harmonious passion felt by the entrepreneur for its venture because it makes sense that a positive achievement will associated with the experience of positive emotion. The same logic can be applied inversely, where decrease the number of employees will have a positive effect in a negative emotion, which in this case is the obsessive passion. This rationale is plausible because not achieving results might lead to a more rigid way of thinking and decision-making, which is a characteristic of a person that feels obsessive passion for an activity. Thus, we hypothesized:

- *H1: The growth of the number of employees (as a prior performance measure) is positively associated with the harmonious passion felt by the entrepreneur.*
- *H2: The growth of the number of employees (as a prior performance measure) is negatively associated with the obsessive passion felt by the entrepreneur.*

The Moderating Effect of Psychological Flexibility

The difference presented between harmonious and obsessive passion seemed to be explained by the flexibility of engagement on a given activity (Vallerand et al., 2003), which affects the decision-making process of an entrepreneur. This characteristic can be defined as psychological flexibility (or cognitive flexibility) (Martin & Rubin, 1995).

Entrepreneurs with higher psychological flexibility will be more aware that there are more options and alternatives for any situation they face, will be more flexible and adapt its behavior and actions to the situation to be addressed, and will be more proactive in being flexible (Martin & Rubin, 1995).

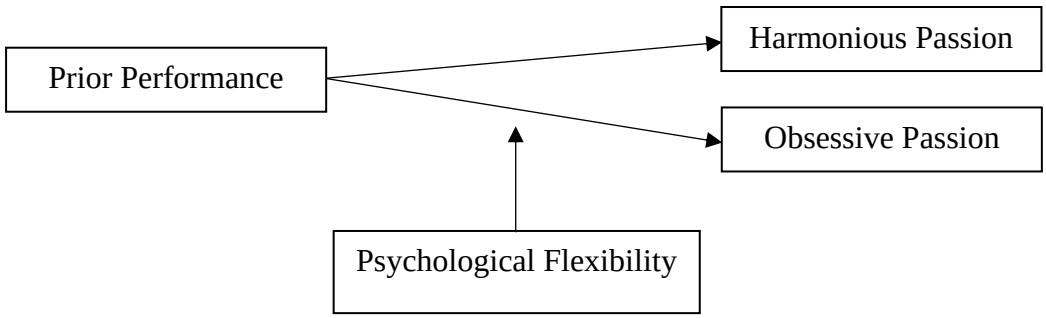
Henceforth, when an entrepreneur sees its venture results, the psychological flexibility is the factor that gives to the entrepreneur the capability of adapting its behaviors and actions to either

achieve the goals defined before or even better results, even if it requires massive changes on the venture. This way of looking for its enterprise is what characterizes feeling harmonious passion for the venture. On the other hand, an entrepreneur that does not have psychological flexibility will be stuck to the same behaviors and actions regardless of the results achieved, because the entrepreneur has a rigid and stubborn manner of behaving and acting. This description fits the definition of an entrepreneur that feels obsessive passion for its venture. Thus, by including the moderator psychological flexibility on the two first hypotheses, we hypothesized:

- *H3: The positive relationship between the growth of the number of employees (as a prior performance measure) and harmonious passion is moderated by the psychological flexibility*
- *H4: The negative relationship between the growth of the number of employees (as a prior performance measure) and obsessive passion is moderated by the psychological flexibility.*

The theoretical models for all hypotheses are depicted in Figure 1.

Figure 1
Proposed Model for All Hypothesis



Methodology

Sample and Procedure

We tested our hypotheses with a sample of Portuguese startups retrieved from the Orbis database. The selection of the sample was based on several criteria: (1) the companies have to currently operate, otherwise there would be no point on testing a relationship between the passion an entrepreneur fells for his/her business and the companies financial data because if the company has closed there would be no evolution of financial results to evaluate its impact on passion, (2) the companies considered are small or medium size enterprises because it is more likely they have not reached a true stability (Cardon & Kirk, 2015), making them actual startups, which is the target of this study, and (3) the companies had to start operating between 2008 and 2013. This last criteria was selected for two reasons: (1) being incorporated between these years allow us to have five years of financial results, which enables a research based on the evolution of those results throughout the last five years (from 2014 until 2018), and (2) because we wanted to include in the sample companies in distinct stages of venture development, ranging from founding to growing stages of a startup (Cardon et al., 2015), so that the sample is representative of the Portuguese startups ecosystem.

After applying all these filters on Orbis, we were able to identify 22 006 startups. The data retrieved form Orbis to create this dataset was the company's name and email, and the number of employees from 2014 and 2018. We sent a survey to 9000 companies out of the 22 006. From here we obtained 404 unfinished answers and 282 finished answers (response rate of 3.13%). Since it is only possible to consider surveys that were completed, we could only consider the 282 answers recorded. Out of these 282 answers, it was possible to match the information for 193 companies (the remaining cases did not mention the name of the company

on the survey). In the end, the sample contained 171 startups because these were the questionnaires answered by someone that belongs to the founding team.

Our final sample is then composed by 171 Portuguese startups that are currently active and operate for at least for five years and at most ten years. According to the activity sections in INE (2007), the main activity sections represented in this sample are the Construction (14%), Consultancy, Scientific, Technical, and Similar Activities (10%), Financial and Insurance Activities (9%), Activities of Human Health and Social Support (9%), Commerce and Vehicles Repairs (8%), Manufacturing Industries (7%), Information and Communication Activities (6%), and Activities Artistic, of Performance, Sports and Recreative (6%).

The growth of the number of employees was then matched with the answers of the survey to study the hypotheses made. The company's name was retrieved to match the data of the company with the answers given to the survey by that same company. All the items in the survey were written in English and in Portuguese.

Measures

Control Variables: We control for *Age* and *Gender*. This data was obtained by asking the inquiries their age and gender. Then the label *"Male"* was coded as "0" and *"Female"* as "1". The age remained as originally responded by the inquiries. The *Harmonious* and *Obsessive Passions* were also used as control variables, but only when they are not being input as dependent variables. For instance, in hypothesis 1 the relationship between the *Number of Employees* and *Harmonious Passion* was tested, therefore the *Obsessive Passion* was considered a control variable. This decision of using *Harmonious* and *Obsessive Passions* as control variables was grounded on Vallerand et al. study, where he confirmed the significant positive correlation between them (Vallerand et al., 2003), showing evidence enough to believe

the passions will have an influence as control variables of each other. Finally, in the first and second hypothesis the *Psychological Flexibility* was used as control variable.

All the items below (except the Average Annual Growth of the Number of Employees) were measured using a 7-point Likert scale anchored from "strongly disagree" to "strongly agree".

Harmonious Passion: This variable was measured with the seven items developed by Vallerand et al. (2003). A representative item "This project is in harmony with the other activities in my life.". The Cronbach's Alpha ($\alpha = .87$) suggests that the internal consistency is good.

Obsessive Passion: Similar to the harmonious passion, this variable was also measured based on the seven items developed by Vallerand et al. (2003) to evaluate the level of obsessive passion felt. A representative item out of the seven items was "The urge is so strong. I cannot help myself from doing this project. The Cronbach's Alpha ($\alpha = .93$) suggests the consistency within scale is very good.

Psychological Flexibility: This variable was measured based on the twelve items developed by Martin and Rubin et al. (1995), used to evaluate the level of cognitive flexibility of an individual. A representative item out of the twelve items was "I have many possible ways of behaving in any given situation.". The Cronbach's Alpha ($\alpha = .65$) shows that the internal consistency of the scale is acceptable.

Average Annual Growth of the Number of Employees: The Number of Employees from 2014 to 2018 was retrieved from the platform Orbis. This variable returns the coefficients that represent the evolution of the Number of Employees throughout the five years considered per enterprise, value that is crucial to further evaluate the hypotheses created. To calculate this variable, the following formula was used:

$$\text{AAG\_NoE} = \frac{\frac{\text{NoE}_{2018} - \text{NoE}_{2017}}{\text{NoE}_{2017}} + \frac{\text{NoE}_{2017} - \text{NoE}_{2016}}{\text{NoE}_{2016}} + \frac{\text{NoE}_{2016} - \text{NoE}_{2015}}{\text{NoE}_{2015}} + \frac{\text{NoE}_{2015} - \text{NoE}_{2014}}{\text{NoE}_{2014}}}{4}$$

Method of Analysis

The values of the variables used as independent, moderator or control were centered around the overall mean of the variable in question (mean-centered). The method of mean-centering facilitates to identify the individuals above or below the average and allows a clearer further analysis.

Results

Sample Descriptives and Correlations

The means, standard deviations, and correlations of all the variables are presented below in Table 1. The two significant correlations found were between Harmonious and Obsessive Passions (r = .27; p < .01), and between Harmonious Passion and Psychological Flexibility (r = .46; p < .01). Since all the correlations are below .80 (Cooper & Schindler, 2003), it is verifiable that multicollinearity does not exist within the sample.

Table 1
Descriptive Statistics and Correlations

	Variables	Mean	SD	1	2	3	4	5	6
1	AAG_NoE	.17	.27	-					
2	HP	5.59	.94	-.05	(.87)				
3	OP	3.55	1.49	-.02	.27**	(.93)			
4	PF	5.76	.52	-.05	.46**	-.01	(.65)		
5	Gender	0.35	.48	-.14	.14	.04	.08	-	
6	Age	45.59	9.34	-.01	-.05	.01	-.06	-.13	-

* p < .05; ** p < .01; N = 171; α = *Cronbach's Alpha*
Labels: AAG_NoE (Average Annual Growth of Number of Employees); HP (Harmonious Passion); OP (Obsessive Passion); PF (Psychological Flexibility).

Results of Hypotheses Testing

We ran two linear regressions to test hypotheses 1 and 2. For hypothesis 1, we predicted that the growth of the number of employees would be positively related to harmonious passion. Regarding hypothesis 2, we considered that the growth of the number of employees would be negatively associated to obsessive passion. The main results are in Table 2 and 3, respectively.

Table 2
Linear Regression - Hypothesis 1

Predictors	**Coefficients (Beta)**	**Coefficients SD**	**T**	**Sig.**
Constant	5.48	.08	72.09	.00
AAG_NoE	**-.03**	.23	-.12	**.90**
OP	.17	.04	4.21	.00
PF	.81	.12	6.88	.00
Age	-.00	.01	-.18	.86
Gender	.17	.13	1.28	.20

Dependent variable: Harmonious Passion; N = 171; If p > .05, the model is statistically significant; Otherwise it is not significant. **Labels**: AAG_NoE (Average Annual Growth of Number of Employees); OP (Obsessive Passion); PF (Psychological Flexibility).

Table 3
Linear Regression - Hypothesis 2

Predictors	**Coefficients (Beta)**	**Coefficients SD**	**T**	**Sig.**
Constant	3.54	.14	25.70	.00
AAG_NoE	**-.03**	.41	-.07	**.95**
HP	.56	.13	4.21	.00
PF	-.50	.24	-2.09	.04
Age	.00	.01	.27	.79
Gender	.04	.24	.16	.87

Dependent variable: Obsessive Passion; N = 171; If p > .05, the model is statistically significant; Otherwise it is not significant. **Labels**: AAG_NoE (Average Annual Growth of Number of Employees); HP (Harmonious Passion); PF (Psychological Flexibility).

Concerning hypothesis 1, the growth of the number of employees has a non-significant negative direct effect on harmonious passion (B = -.03, p = .90), being the relationship hypothesized not significant. Hence, these findings did not support hypothesis 1.

For hypothesis 2, the results presented that the growth of the number of employees has a non-significant negative direct effect on obsessive passion (B = -.03, p = .95), being this relationship not significant. Therefore, similar to hypothesis 1, we did not find evidence to support our predictions in hypothesis 2.

We ran the model 1 of *SPSS PROCESS by Hayes* to test the interaction effect in hypothesis 3. Here we predicted that the positive relationship between the growth of the number of employees and harmonious passion would be moderated by the psychological flexibility of the entrepreneur, such that when the entrepreneur presents a high psychological flexibility, the relationship is stronger that when the entrepreneur has a low psychological flexibility. The main results are in Table 4.

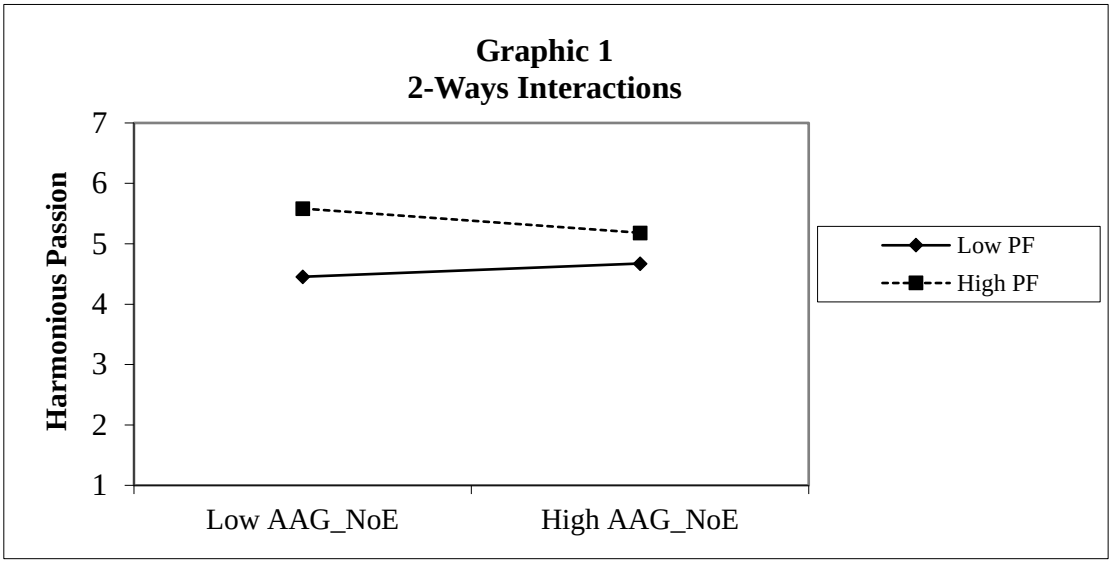
Table 4
Model 1 - Hypothesis 3

Predictors	**Coefficients (Beta)**	**SE**	**T**	**Sig.**
Constant	4.88	.34	14.25	.00
AAG_NoE	-.12	.23	-.52	.60
PF	.77	.12	6.56	.00
Interaction	**-1.13**	.51	-2.22	**.03**
Gender	.18	.13	1.41	.16
Age	.00	.01	.14	.89
OP	.16	.04	3.74	.00

Dependent variable: Harmonious Passion; N = 171; If p > .05, the model is statistically significant; Otherwise it is not significant. **Labels**: AAG_NoE (Average Annual Growth of Number of Employees); OP (Obsessive Passion); PF (Psychological Flexibility).

In this hypothesis, we found a significant interaction effect for harmonious passion (B = -1.13, p = .03), meaning that the effect on the harmonious passion is contingent upon the psychological flexibility of the entrepreneur. Therefore, these findings provide support to our predictions in hypothesis 3.

To analyze the interaction effects found, the data from this model was entered on a 2-way interaction graphic to visualize the difference between the entrepreneurs that presented a high psychological flexibility and a low one. From this analysis, as expected, the entrepreneurs with high psychological flexibility present higher levels of harmonious passion than the entrepreneurs with low psychological flexibility. This difference can be seen in Graphic 1.



Graphic 1 – Comparison between high and low psychological flexibility entrepreneurs

To further examine these slopes, we tested their significance individually, and the significance of the difference between them. With this test, we found that the slopes are significantly different from each other (p < .05), meaning that the entrepreneurs with a higher psychological flexibility tend to show higher levels of harmonious passion, while the entrepreneurs with a lower psychological flexibility tend to present lower levels of harmonious passion.

Finally, we also ran the model 1 of *SPSS PROCESS by Hayes* to test the interaction effect in hypothesis 4. Here we predicted that the negative relationship between the growth of the number of employees and obsessive passion would be moderated by the psychological flexibility of the entrepreneur, such that when the entrepreneur presents a low psychological flexibility, the relationship is stronger that when the entrepreneur has a high psychological flexibility. The main results are in Table 5.

Table 5
Model 1 - Hypothesis 4

Predictors	**Coefficients (Beta)**	**SE**	**T**	**Sig.**
Constant	.41	.93	.44	.66
AAG_NoE	-.16	.42	-.39	.70
PF	-.51	.24	-2.16	.03
Interaction	**-1.65**	.93	-1.78	**.08**
Gender	.07	.24	.28	.78
Age	.01	.01	.52	.60
HP	.51	.14	3.74	.00

Dependent variable: Obsessive Passion; N = 171; If p > .05, the model is statistically significant; Otherwise it is not significant. **Labels**: AAG_NoE (Average Annual Growth of Number of Employees); HP (Harmonious Passion); PF (Psychological Flexibility).

In this hypothesis, we found a non-significant interaction effect for obsessive passion (B = -1.65, p = .08), meaning that the effect on the obsessive passion is not contingent upon the psychological flexibility of the entrepreneur. Therefore, these results did not provide evidence to support our predictions in hypothesis 4.

Discussion

Discussion of the Findings

The purpose of this study was to analyze effects of prior venture performance on the entrepreneurs' entrepreneurial passion, and the moderation effect of psychological flexibility. According to our results, we found that the relationship between the growth of the number of employees and harmonious passion is moderated by the psychological flexibility.

Our findings for hypothesis 1, in which we predicted a positive effect of employment growth in a venture on the harmonious passion felt by the entrepreneur, demonstrated that the prior entrepreneurial performance results do not have a significant impact on entrepreneurial harmonious passion. In fact, not only the significance was very high (p = .90), but also the coefficient associated with the growth of the number of employees is almost null (B = -.03). Therefore, despite harmonious passion being a positive emotion, it does not vary by achieving positive results.

Similar to the first hypothesis, the findings for hypothesis 2, in which we predicted a negative effect of employment growth in a startup on the obsessive passion felt by the entrepreneur, showed that the prior entrepreneurial performance results do not have a significant effect on entrepreneurial obsessive passion, being the coefficient almost null (B = -.03) and the significance very close to 1 (p = .95). Therefore, despite obsessive passion being a negative emotion, it does not vary by achieving negative results.

The results for hypotheses 1 and 2 could be explained by the complexity of entrepreneurial passion (Cardon et al., 2009), so that a single factor might not be powerful enough to influence the level of entrepreneurial passion only by itself. In fact, if we look for the studies done evaluating the importance of passion on other aspects of entrepreneurship, according to Cardon et al. (2017), passion increases entrepreneurs' dedication and commitment to their ventures,

persistence in pursuing venture-related goals and activities, and ability of fully engaging in their actions (Cardon et al., 2009; Cardon & Kirk, 2015; Drnovsek et al., 2016; Vallerand et al. 2003). Beyond that, empirical studies have already found relationships between entrepreneurial passion and persistence (Cardon & Kirk, 2015), venture growth (Drnovsek et al., 2016), and employee commitment (Breugst, Domurath, Patzelt, & Klaukien, 2012), for instance. Therefore, it is reasonable to assume that, the same way entrepreneurial passion can affect several aspects of entrepreneurship, those same several aspects all together might influence the level of entrepreneurial passion back, being the group of factors what makes the possible influence on passion significant.

The findings for hypothesis 3 supported the assumption that the relationship between the growth of the number of employees and harmonious passion is moderated by the psychological flexibility of the entrepreneur. Aligned with our supposition, with the stimulus of the employment growth of the venture, the entrepreneurs with high psychological flexibility have higher levels of harmonious passion, while the ones with low psychological flexibility have lower levels of harmonious passion, being this difference statistically significant. According to the concepts found in the literature, the definition of psychological flexibility (Martin & Rubin, 1995) is highly related to the definition of harmonious passion (Vallerand et al., 2003). Since the harmonious passion is characterized by a flexible way of engaging in a given activity, being able to adapt the behaviors and actions within a situation an entrepreneur faces is a characteristic inherent to a flexible engagement. Therefore, the psychological flexibility is basically a characteristic of a harmonious passion.

The findings for hypothesis 3 also suggest that the literature regarding emotions is aligned with our results. We can infer that entrepreneurs with high psychological flexibility feel higher harmonious passion when considering the employment growth of the venture, meaning that psychological flexibility enables the positive effect on entrepreneurs' harmonious passion

(which is a positive emotion) by achieving concrete outcomes (which is the employment growth). Beyond that, since the difference on the level of harmonious passion between entrepreneurs with high and low psychological is statistically significant, we proved this relationship is powerful (Amabile & Kramer, 2011).

The findings for hypothesis 4, in which we assumed the negative relationship between the growth of the number of employees and obsessive passion would be moderated by the psychological flexibility of the entrepreneur, presented a non-significant interaction effect (p = .08), meaning that the relationship is not moderated by psychological flexibility. Looking for the definitions of psychological flexibility (Martin & Rubin, 1995) and obsessive passion (Vallerand et al., 2003), it is possible to understand why the interaction effect was not significant. Obsessive passion is characterized by a rigid way of engagement in an activity, which is not compatible with what involves having psychological flexibility. Therefore, the result achieved makes sense when considering the literature.

All in all, prior entrepreneurial performance alone is not enough to affect entrepreneurial passion due to the complexity of this emotion (Cardon et al., 2009). But, when it is moderated by the psychological flexibility of the entrepreneur, it has a significant interaction effect for harmonious passion because its definition implies a flexible way of activity engagement (Vallerand et al., 2003) that implicitly includes the need to have psychological flexibility.

Limitations and Future Research

This study is not without limitations, which may also be opportunities of future research. First, the small number of ventures included in our sample (N = 171) concerns us because small samples tend to reduce statistical power (Aguinis & Harden, 2009), making the effects being studied harder to find (if existent). Therefore, it is crucial to test our hypotheses again with a larger sample of ventures.

Second, the low response rate to our survey (3.13%) is also a concern because a high rate of non-response leads to a higher probability of statistical bias (Tomaskovic-Devey, Leiter, & Thompson, 1994), which could influence the results achieved. However, it is not certain that a high non-response rate will induce a non-response bias in survey results (Groves, 2006), since increasing the probability does not imply that the non-response bias will happen for sure. Nevertheless, to mitigate this risk, another method of distributing the survey must be used. According to the literature, web surveys are expected to have lower response rates than other survey methods (Manfreda, Bosnjak, Berzelak, Haas, & Vehovar, 2008). One of the main reason presented to explain it was the security and privacy concerns associated with the Internet (Sax, Gilmartin, & Bryant, 2003), which, despite being safer nowadays, still concerns several respondents, especially when the survey is not anonymous (which is the case of our survey). Therefore, perhaps a personal interview would be a better approach to distribute the survey, because the respondents would be sure the information given would not be used for anything else beyond the current research, and it would improve the response rate exponentially, hence decreasing the risk of non-response bias.

A final limitation is that the entrepreneurs only answered to the survey once might ignore the effect time has on entrepreneurial passion. We end up studying the effect the evolution of performance has on entrepreneurial passion, instead of researching the effect the evolution of performance might have on the evolution of entrepreneurial passion felt by the entrepreneur. This second approach would allow us to evaluate how improvements or declines in performance would influence the entrepreneurial passion throughout time. Therefore, an interesting research to be done would be applying the survey periodically to check the direct relationship between of the prior performance results for a given period and its influence on entrepreneurial passion for that same period.

Our paper also provides directions for future research that can be done. Considering the importance of the growth of sales as a prior performance measure (Brüderl & Preisendörfer, 1998), future research could be done to explore its relationship it has with entrepreneurial passion. However, it is recommended that the method chosen is not a one-time test in order to capture the time effect on both variables. Moreover, beyond psychological flexibility, other variables could be tested as moderators of that relationship. A possibility could be including the perceived progress of entrepreneurial performance results as a moderator, because empirical evidence on literature has already proved that it is related to entrepreneurial effort (Uy, Foo, & Ilies, 2014), and entrepreneurial effort is related to entrepreneurial passion (Gielnik et al., 2014). Therefore, it might be of extreme relevance study how this variable can influence entrepreneurial passion.

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