

## Performance, self-regulation, and competencies of entrepreneurs in Brazilian creative industries<sup>1</sup>

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**ABSTRACT** - The prediction of entrepreneurial competencies on the perception of business performance by creative industries professionals was tested. Performance was measured based on the entrepreneurs' perception concerning their satisfaction with the enterprise performance indicators (e.g., profitability) and their social relationships and career (e.g., the image of the enterprise and personal career advancement). Mediation of self-regulation was also tested. Participants were 295 professionals from the Brazilian creative industries. Data were analyzed using both the factor analysis and multivariate multiple linear regression. Strategy and Planning competencies were predictors of performance perception, regarding enterprise performance indicators ( $R^2_{FR} = 0.20$ ) and social relationship and career ( $R^2_{FR} = 0.24$ ). The self-monitoring dimension of self-regulation showed partial mediation (0.09 and 0.10, respectively,  $p < 0.001$ ). Entrepreneurs from the music industry had significantly higher scores. Practical implications of these results are discussed.

**Keywords:** entrepreneurship, competencies, self-regulation, creative industries

## Desempenho, autorregulação e competências de empreendedores de indústrias criativas brasileiras

**RESUMO** - O objetivo deste artigo foi testar o poder preditivo das competências empreendedoras sobre o desempenho de profissionais nas indústrias criativas. O desempenho foi mensurado com base na percepção dos empreendedores sobre indicadores de resultado do negócio (e.g., lucratividade) e sobre relacionamentos sociais e carreira (e.g., a imagem do negócio e os avanços na própria carreira). A mediação exercida pela autorregulação também foi testada. Participaram 295 profissionais das indústrias criativas brasileiras. Os dados foram analisados por meio de análises fatoriais e de análise de regressão multivariada. Os resultados indicam que as competências de estratégia e planejamento foram preditores da percepção de desempenho, tanto dos indicadores de resultado do negócio ( $R^2_{FR} = 0.20$ ) quando dos relacionamentos sociais e de carreira ( $R^2_{FR} = 0.24$ ). Uma dimensão da autorregulação, automonitoramento, apresentou mediação parcial sobre a variável-critério (0.09 e 0.10, respectivamente,  $p < 0.001$ ). Os empreendedores do setor de música apresentaram escores significativamente mais elevados nas competências avaliadas. Implicações práticas dos resultados são discutidas.

**Palavras-chave:** Empreendedorismo, competências, autorregulação, indústrias criativas

The purpose of this article is to investigate entrepreneurial competencies and self-regulation processes and their relationships with perceived business performance among Brazilian professionals of the creative industries. These industries are made up by sectors whose activity is at the same time cultural and economically driven (Bendassolli, Wood Jr, Kirschbaum & Cunha, 2009; Caves, 2000). The cultural side of these industries is based on material and immaterial goods upon which the creative professional can work to transform them into something to be commercialized. For instance, a book is first conceived in the "mind" of a writer who draws on his memories but also on the cultural tradition to which he belongs. These ideas are then embedded into a material form

– a book (either in a paper-based platform or on-line/virtual one). Overall, the creative industries comprise traditional art sectors like literature, theater, plastic arts, heritage (museum, preservation, folklore); hybrid sectors, such as architecture, fashion, tourism, software development; and mass-media traditional sectors, namely: television, journalism, propaganda and advertisement. They share the process of converting ideas and values into some sort of copyrighted material or service.

Considering the reality of creatives industries in Brazil, these are responsible for approximately 10% of the national GDP and 8% of the Economically Active Population (Bendassolli & Borges-Andrade, 2013). As a consequence of the prior definition of creative industries, creative professionals need to integrate diverse aspects related to the symbolic and economic values of entrepreneurial activities (Beugelsdijk & Maseland, 2011). The first involves the process of aesthetic

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and innovative creation, respectively, to generate ideas and conceive products or services, while the economic aspect takes into account resources, the commercial potential of ideas, and feasibility of the enterprise over time (De Bruin, 2005).

Considering the demands of the creative work, the study of the development of competencies in creative industries is a new challenge for work psychology. First, because human performance is based on competencies. Second, because we hardly can find studies specifically focused on creative professionals. Indeed, the majority of the studies on competencies are designed to deal with issues emerging in “traditional” sectors of the economy. As a consequence, creative professionals are supposed to find their own way to improve their performance (e.g., Wikström, 2009). The situation is even more serious if we consider that most of these professionals are compelled to be entrepreneurs, since they normally have no “jobs” in the conventional sense of this term (with regular and formal work contracts). Additionally, competencies and entrepreneurship are two important topics in the field of work and organizational psychology. This paper is concerned with both concepts, as further described.

Entrepreneurship is a multifaceted phenomenon, for which a set of classification models has been presented to differentiate types and behaviors distributed on a continuous line (e.g., Carland, Hoy, Boulton, & Carland, 1984). In its extremes lie individual entrepreneurship, the micro-entrepreneur or small business owner who runs the business alone, and social and collective entrepreneurship, resulting from the efforts of various actors, including the organizational entrepreneur. The entrepreneurial activity involves at least three key elements: actor; context; and result (e.g., Schumpeter, 1934; Vale, 2014). The entrepreneurial actor can be an individual, an organization or government institution. Personal traits (Brandstätter, 2011) and entrepreneurial competencies, acquired through formal learning and socialization processes, come into play when thinking about the actor (e.g., Man, 2001).

Competencies can be defined as the mobilization of knowledge, actions, and emotions that are operationalized in a value-aggregating performance (Carbone, Brandão, Leite, & Vilhena, 2009). Entrepreneurial competencies are operationalized by an innovative performance (e.g., Cooley, 1990; Man, 2001). Competencies would be responsible for three activities related to the entrepreneur’s performance: 1) to define and act in the competitive environment in which the enterprise is positioned; 2) to manage internal and external resources to move the business forward; and 3) to set goals and make decisions for their attainment, bearing in mind resources, moral values, and available capacities in the competitive landscape envisaged.

The Man’s and Lau’s (2000) model organizes competencies into six dimensions: (i) opportunity (to identify and exploit new opportunities), (ii) relationship (to build, maintain, and grow social networks), (iii) conceptual (to think conceptually about what it means to be an entrepreneur), (iv) organizing (to effectively manage several financial, human, technological, material, etc. resources), (v) strategic (to identify, plan, and implement goals), and (vi) commitment (affective and cognitive mobilization to move forward even in the face of challenges).

The importance of entrepreneurial competencies is confirmed by empirical evidence. Primary internal barriers to entrepreneurship stem from emotional aspects (fear of taking

on responsibilities, fear of risks and stress, and lack of self-confidence), relationship aspects (lack of social networks), and lack of essential management competencies (Sesen & Pruett, 2014). These results are consistent with other studies that point to stubbornness, the skill to overcome challenges and to take limited risks as underlying entrepreneurial characteristics (Jaramillo-Villanueva, Escobedo-Garrido, Morales-Jimenez & Ramos-Castro, 2012), in addition to the capacity to introduce newness and to build social networks (Correa & Vale, 2014).

In the context of the creative industries, however, research on entrepreneurial competencies and personal characteristics of the entrepreneur is still scarce, given the specificity of this context. The exploratory combination of several competency models available in the literature could potentially contribute to the attempt to find a list of cognitive, affective, moral, and social competencies more aligned with the creative industries and help in understanding the factors most strongly associated with the successful performance of entrepreneurs in this line of work. Therefore, ( $h_1$ ): *entrepreneurial competencies, defined as combinations of knowledge, skills, and attitudes, will have a predictive effect on the perception of results (entrepreneurial performance) of entrepreneurial activity in the creative industries.*

The second relevant aspect, related to the actor/entrepreneur element, is self-regulation. This is an individual psychological process that significantly contributes to professional performance, since it influences the agency of actions. Theories on self-regulation are subsets of cognitive theories. They aim to explain behavior and its results on the basis of the active perception and interpretation of information by the individual (Johnson & Delmar, 2009). The approach taken in this study relies on the self-regulation theories of Bandura (1991, 2006) and Kanfer and Karoly (1972), which can help by providing input on the self-regulatory processes that would result in business success.

Self-regulation is defined as the process that includes monitoring, evaluating, and providing feedback on personal actions through self-reinforcement and emotional self-control to redirect actions toward achieving goals (e.g., Bandura, 1991, 2006; Forgas, Baumeister & Tice, 2009; Kanfer & Karoly, 1972; Mezo, 2008). The function of self-regulation is to make the actor take personal control of the environment in which he/she is located, increasing his/her capacity as an agent. This is essential in entrepreneurial activity and leads to successful performance (Frese & Gielnik, 2014; Morten, Ripoli, Carvalho, & Bernal, 2014).

The actor’s level of attention concerning his/her thoughts, emotions, and actions becomes essential in the process of self-monitoring and self-criticism, favoring a positive or negative assessment that will activate self-reinforcement or self-punishment mechanisms, as appropriate. Thinking, emotion, or behavior, therefore, are maintained or redirected by an internal striving effort of the individual, in which cognitions and emotions are in play (Mezo, 2008; Simsek, Heavey, & Veiga, 2010). Entrepreneurs are aware of their behavior, thoughts, and emotions. They are more critical of themselves, which increases the level of awareness of their flaws and alternative choices for promoting self-development and persistence in their objectives and goals (e.g., Baumeister, Bratslavsky, Muraven, & Tice, 1998).

But learning such skills would not suffice for the result to be successful performance. For them to be effectively associated

with entrepreneurial performance, the agency of the individual is required. This seems to be especially important in the case of entrepreneurship, as described in the model proposed by Frese and Gielnick (2014). They assign a central position to action characteristics, between cognitive and affective antecedents and indicators of entrepreneurial success. Self-regulation, a form of agency, may be in that position between competencies and performance perceived by entrepreneurs in the creative industries. Therefore, ( $h_2$ ): *self-regulation exerts a mediating effect on the relationship hypothesized in ( $h_1$ )*.

The second key element in entrepreneurship, after the actor, is the context. This variable can be understood in broader or narrower terms. More broadly this relates to economic, political, technological, and market factors that influence the success or failure of entrepreneurial actions, either individual or collective (Sesen & Pruett, 2014). From the perspective of a psychology of the entrepreneur and self-regulation, the contextual or situational factors closer to the entrepreneurial subject would act as moderators in the relationships between self-regulatory processes (such as perceived goal-oriented behavioral control and perceived self-efficacy) and the entrepreneurial results (Johnson & Delmar, 2009).

There is empirical evidence that the proximal context, such as family environment, entrepreneur parents, for example, contributes to the intention to follow an entrepreneurial career (e.g., Geldhof, Weiner, Agans, Mueller, & Lerner, 2014). In the case of creative industries in Brazil, the sectors of activity (music, visual and performing arts, literature, cultural heritage) are subject to very clear market rules (e.g.: literature with publishers and bookstores, music and performing arts with cultural producers, visual arts with communication companies). They may be nationally concentrated (e.g.: performing arts in the more developed states) or dispersed (e.g.: music), or even more (e.g.: cultural heritage) or less (visual and performing arts, music, literature) government-dependent. Therefore, ( $h_3$ ): *the perception of results (entrepreneurial performance) will vary depending on the specific activity sector to which the entrepreneur belongs within the surveyed creative industries*.

The third key element in the analysis of entrepreneurship is the actual entrepreneurial performance. This covers both the behaviors and actions that underpin the achievement of results (process), as well as the concrete result, understood as the consequences of those actions (Sonnentag & Frese, 2005). These can be evaluated as satisfactory or not, according to contingent valuation criteria. The main criteria of entrepreneurial performance refer to new ways of introducing goods, production methods, expansion of markets, and creating alternative sources of supplies and reorganization (Schumpeter, 1934). There is evidence that the dimensions related to self-regulation, such as self-efficacy, internal motivation, and goal-orientation, have effects on the perception of entrepreneurial success (Frese & Gielnick, 2014).

In the present study, the measurement of performance is based on the subjective perceptions of entrepreneurs about: (a) their satisfaction with business performance goal indicators (profitability, sales volume, return on investment, and market share) (Chandler & Hanks, 1994), and (b) their social and symbolic relationships (image of the enterprise and personal career advancement) (Ahmad, 2007; Hoque, 2004).

## Method

### Participants

The study included 295 professionals from the creative industries in Brazil, with certain cases excluded, whose criteria will be detailed below. The average age was 39.78 years ( $SD=12.35$ ), and more than half are male (67.1%). This is a sample with high education levels: approximately 78% of the participants had a higher education, of which 43.4% had a college diploma, 20.79% with advanced specialized degrees, and 13.09% with post-graduate studies. The sectors of activity within the creative industries were distributed as follows: visual arts (34.6%), performing arts (21.0%), audiovisual (11.5%), literary arts (8.1%), music (6.8%), cultural heritage (1.7%) (including museums, crafts, monuments, and folklore), and a variety of other activities that are not classified in the foregoing, according to the participant's own statement (16.3%), and that, due to its fragmentation, will not be used in the analysis. The average professional experience is 16.9 years ( $SD = 11.86$ ). Finally, according to the criterion adopted in this research, they are all considered as entrepreneurs, distributed as follows: 68.8% are business owners (with or without employees); 15.9% are managers; and 14.9% are individual micro entrepreneurs (*MEI*), that is, they own a company in their own name, in the National Registry of Legal Entities (*CNPJ*), without employees.

### Instruments

We used three measures, plus questions on participants' characterization by age, activity sector in the creative industries, performance experience in the industry, level of education. A question based on the entrepreneurial continuum concept was included (Carland, Hoy, Boulton, & Carland, 1984), in order to distinguish the type of entrepreneur: a businessman (owner), manager, or *MEI*, also acting as an exclusion criterion.

- *Perceived Results (entrepreneurial performance)*. Assesses the participant's level of satisfaction in relation to indicators of financial and non-financial results of their activity. The first list of indicators consists of five items originally developed by Chandler and Hanks (1994). They include indicators such as profitability, sales volume/growth, and return on investment. These authors reported an alpha of 0.77 for those items combined, and another study reported an alpha of 0.90 (Ahmad, 2007). The second list of indicators consists of nine items related to criteria on satisfaction with non-financial results of the activity. Some of these items were originally developed by Hoque (2004), the author reporting good reliability ( $\alpha = 0.75$ ), and the remainder by Ahmad (2007) ( $\alpha = 0.84$ ). They include aspects such as customer and employee satisfaction, relationships with suppliers, and relationships in the workplace. Participants responded on a six-point Likert scale (1 = not at all satisfied, 6 = completely satisfied).
- *Entrepreneurial competencies*. This is a scale originally developed by Man (2001), and then reworked by

Man and Lau (2005), and Ahmad (2007). The version used in this study is the result of an adaptation of the instrument from Man (2001), originally composed of 53 items distributed in six competency dimensions or domains. The six competency dimensions are: strategy, opportunity, relationships, conceptual, organization and commitment. In his validation study, Man reported alphas ranging from 0.78 to 0.94. In Ahmad's, which used the 53-item version, alphas ranged from 0.64 to 0.91. In the present study, the response options were given in Likert format (1 = completely disagree, 6 = completely agree).

- *Self-Regulation.* We used the Self-Control and Self-Management Scale - SCMS, originally developed and tested by Mezo (2008), and based on the theories of Bandura (1991), and Kanfer and Karoly (1972). This scale consists of 16 items, which, in the original model, are grouped into three dimensions: i) Self-Monitoring/SM, assessing how aware the subject is with respect to the actions, emotions, and thoughts related the task; ii) Self-Evaluating/SE, with items that measure the degree of difficulty of the self-achievement standards, as well as the evaluation done by the subjects themselves regarding the results they achieve; and iii) Self-Reinforcing/SR, the items of which measure self-reward and self-punishment strategies reported by the subject, which can be open (explicit) or closed (implicit). In the original study, Mezo (2008) reported satisfactory consistency indexes: 0.74 (SM), 0.75 (SE), and 0.78 (SR). Participants responded on a Likert scale (1 = item does not describe the participant at all; 6 = the item fully describes the participant).

As the three measures were initially developed and validated in English, the next step was to translate them into Brazilian Portuguese, followed by back-translation procedure. The versions were compared by two expert judges on these topics, who received instructions on the theoretical foundations of the measures. The version resulting from this procedure was subjected to a pre-test, conducted with 11 people with characteristics similar to those of the target population. First, these people responded to the instruments individually; later, they were interviewed by the researchers. After that process, a final version of the instruments was adopted. The number of questions remained the same as in the original versions, except for the entrepreneurial competencies instrument, in which similar issues were merged and others excluded that, through previous procedures, had proven to be semantically problematic. The final version of the entrepreneurial competencies instrument had 41 questions.

### Data collection procedure

The instruments were applied in an online format. First, we constructed a database with names of potential participants. At this point, the only inclusion criterion was that they be professionals working in the creative industries, more specifically artists. These professionals belong to the central core of the model proposed by Throsby (2001), the author who classifies creative industries in three concentric circles based on the degree of use of non-material/symbolic content

in generating economic value. The central core is composed of professionals in symbolic-intensive sectors such as theater, literature, music, dance, and plastic and visual arts. To build the aforementioned database, information portals were accessed on the arts and creative industries, sites of institutions, sites and social networks of the artists themselves, in addition to other sources where the names and e-mail addresses of professionals from the creative industries could be identified. From this first effort over three thousand potential participants' names and contact information were obtained.

The next step was to start the publicizing and invitation process. For this, emails were sent in weekly cycles to each of the names contained in the database. The e-mail message presented the research objectives, its stages, information about the researchers and ethical aspects. Data collection was closed when the replies to these invitations stopped coming in. The "snowball" strategy was also used, requesting those responding to publicize the study using their contact lists. The sample composition, therefore, was by convenience with participants from different regions of the country. Only professionals who were classified into one of the three entrepreneurial continuum options used as criteria for inclusion in the sample were included in the overall calculations for the analyses proposed in this article.

### Data analysis

Data were inspected to identify omissions or collection irregularities. Only fully completed questionnaires were kept in the database (no missing data). We inspected the data distribution and checked for the possible presence of severe uni- ( $z \geq 3.29$ ) and multivariate outliers (squared Mahalanobis distance -  $D^2$ ,  $p < 0.01$ ). We also inspected Mardia's coefficient. Most items presented absolute values for skewness and kurtosis between  $|0-1|$ , which does not constitute a glaring violation scenario for the analyses performed here (Byrne, 2010; Kline, 2011). Even so, we chose to exclude four cases of potentially severe multivariate outliers. Finally, no signs of multicollinearity were found (based on the VIF statistics).

The first analytical strategy was to investigate the characteristics of validity of the three main instruments used. None of them had been previously studied in Brazil. So, we chose the technique of exploratory factor analysis (EFA), which gives us greater flexibility to check the behavior of the items in their respective constructs in a reality distinct from the one in which they were originally designed. Each factor should have a factor weight of at least  $|\lambda| = 0.50$  to be included in the model. To choose the number of factors to retain, we conducted Horn's parallel analysis (Horn, 1965), operationalized by the statistical program FACTOR 9.2 (Lorenzo-Seva & Ferrando, 2006).

The second analytical strategy was to take the factors from the previous analysis as antecedent variables. Thus, we explore their prediction of the criterion variable, *perceived results*, in order to test the  $h_1$  and  $h_2$  hypotheses of this study. The significance of the weight of these effects was assessed using a multivariate multiple linear regression, with parameter estimation using the maximum likelihood method (ML), done with AMOS (v.21) software. According to the previously mentioned criteria, we did not identify severe

violation of multivariate normality (Mardia's coefficient = 3.20; c.r. = 3.98). Comparisons were also made between means (ANOVA, with post-hoc Tukey's test), specifically to determine the relationship between activity sector and perceived results (to test  $h_3$ ).

## Results

The inspection of the correlation matrices generated for the data from each of the three instruments revealed suitability for carrying out their EFAs. Horn's parallel analysis indicated, respectively, the retention of four (EC), three (SR), and two (PR) factors. Table 1 shows the four EC factors and their characteristics. In total, 25 items (out of 41 originally applied) were retained considering the criterion of  $|\lambda| = 0.50$ .

Table 1. *Factorial structure, Explained Variance, and Consistency Indices - Entrepreneurial Competencies*

Items	SP	SK	LC	PM
Q27	0.83			
Q26	0.78			
Q28	0.76			
Q24	0.73			
Q25	0.71			
Q23	0.67			
Q18	0.62			
Q16	0.56			
Q04	0.53			
Q17	0.52			
Q39		0.78		
Q41		0.69		
Q15		0.62		
Q38		0.62		
Q40		0.57		
Q32			0.80	
Q34			0.67	
Q31			0.66	
Q33			0.64	
Q14			0.55	
Q13			0.53	
Q20				0.84
Q21				0.69
Q19				0.60
Q22				0.52
Eigenvalues	11.62	2.18	1.69	1.28
Variance explained by factor (%)	46.48	8.71	6.71	5.15
Cronbach's alpha (range: 0.95)	0.93	0.87	0.85	0.86

*Note.* Extraction Method: Principal Axis Factoring. Rotation Method: Varimax (with Kaiser normalization). Legend: SP = Strategy and planning; SK = Self-knowledge; LC = Learning and creativity; PM = People management.

The structure obtained for the SR scale is presented in Table 2. Except for the exclusion of one item (Q13: "I can endure difficult moments by thinking about how rewarding it will be afterwards"), all the others were retained in the model. Table 3 shows the two factors retained in the exploratory analysis of the PR instrument. With the exception of one item (Q12: "Business Image"), the others were kept in the two-factor model.

Table 2. *Factorial Structure, Explained Variance, and Consistency Indices - Self-Regulation*

Items	SM	SE	SR
Q4	0.82		
Q3	0.71		
Q5	0.67		
Q6	0.64		
Q2	0.59		
Q1	0.50		
Q08		0.73	
Q09		0.73	
Q10		0.71	
Q11		0.68	
Q07		0.51	
Q16			0.70
Q15			0.66
Q14			0.61
Q12			0.59
Eigenvalues	4.22	2.72	1.69
Variance explained by factor (%)	28.16	18.15	11.30
Cronbach's alpha (range: 0.71)	0.82	0.80	0.76

*Note.* Extraction Method: Principal Axis Factoring. Rotation Method: Promax (with Kaiser normalization). Legend: SM = Self-Monitoring; SE = Self-Evaluating; SR = Self-Reinforcing.

Table 3. *Factorial structure, Explained Variance, and Consistency Indices - Perception of Results*

Items	FR	NFR
Q02	0.91	
Q03	0.88	
Q01	0.81	
Q04	0.72	
Q05	0.67	
Q10		0.69
Q13		0.68
Q11		0.62
Q07		0.61
Q12		0.60
Q09		0.52
Q06		0.50
Q08		0.50
Eigenvalues	5.96	1.85
Variance explained by factor (%)	45.91	14.29
Cronbach's alpha (range: 0.90)	0.92	0.84

*Note.* Extraction Method: Principal Axis Factoring. Rotation Method: Varimax (with Kaiser normalization). Legend: FR = Financial Results; NFR = Non-financial results.

The four EC factors and the three for SR entered into the model as predictors of the creative professionals' satisfaction with, and perception of, the financial and non-financial results of their activity (FR and NFR, respectively). Exploratory multivariate multiple linear regressions were run with various alternative models comprising this set of variables. Figure 1 shows the associations predicted in the first two hypotheses ( $p < 0.001$ ). Of the four entrepreneurial competency factors retained in the analysis (Table 1), only one significantly predicted the perception of results: Strategy and Planning (SP). The model in question can explain FR and NFR moderately, namely:  $R^2_{FR} = 0.20$  and  $R^2_{NFR} = 0.24$ . Only one specific SR factor (SM) appears as a mediating variable of the relationship between a specific EC factor (SP) and the two results factors (FR and NFR).

The supposed direct effect of SP on FR is  $\beta_{FR-SP} = 0.34$ ; while the supposed indirect effect (mediated by SM) is 0.09, which constitutes, according to Baron and Kenny (1986), a partial mediation. Similarly, the supposed direct effect of SP on NFR is  $\beta_{NFR-SP} = 0.34$ , with an assumed indirect effects (mediated by SM) of 0.10. Therefore, the total prediction (direct and indirect) of SP on FR is 0.43, and 0.44 on NFR. And the direct prediction from SM on FR is  $\beta_{FR-SM} = 0.20$ , and on NFR is  $\beta_{NFR-SM} = 0.24$ . The indirect prediction indicators are highly significant ( $p < 0.001$ ), and differ from zero, according to bootstrap replications (90% CI, replication with 2,000 samples). Finally, as regards the comparison between perceived results and activity sector, it was observed that the only significant differences occurred among entrepreneurs working in music, who present a higher mean FR than performing arts entrepreneurs  $\Delta M = 0.95$ ; [95% CI = 0.04 - 1.85].

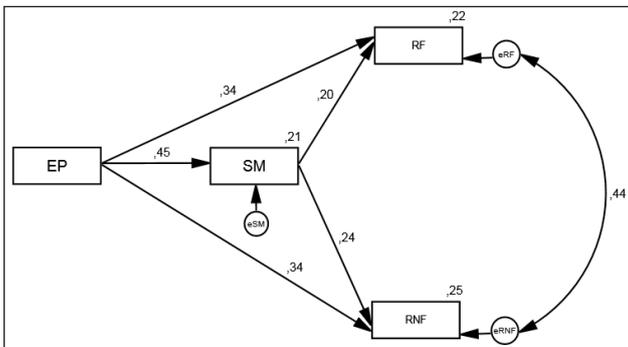


Figure 1. Effect (Standardized) of the SP and SM variables on satisfaction with results (Financial and Non-financial)

Note: SP = Strategy and planning; SM = Self-Monitoring (Self-Management / SM); FR = Financial Results; NFR = Non-financial results. All paths are significant with  $p < 0.001$ .

### Discussion

This discussion starts by summarizing the main results concerning the psychometric indices of the measures, taking into account this is the first time they are applied in the investigation of entrepreneurship in Brazilian creative industries. The overall good indicators found in this research proved to be similar to those of the original studies.

First, the Self-Regulation measure. As in the original, and aligned with the thinking of Bandura (1991), Kanfer and Karoly (1972), and Mezzo (2008), three factors were found. The Self-monitoring (SM) factor explains most of the variance. The items comprising this factor focus on two primary aspects: control over attention (including thinking) and monitoring of behavior. Self-evaluation (SE), the second factor, presents items focusing on personal assessment of the skill to draw up, achieve, and improve performance objectives and standards at work. Self-reinforcement (SR) is the third factor, the items of which measure the skill to express feelings of self-gratification such as pride.

Second, exploratory analysis of the structure of the Entrepreneurial Competencies measure proved to be more parsimonious than that originally developed by Man (2001) and the subsequent revisions made by Man and Lau (2005) and Ahmad (2007). Of the 41 items used in the collection of the data (applied to the entrepreneurs), only 25 were retained after we carried out the analysis, and then grouped into four factors. In the first, called Strategy and Planning, the ten items considered four basic capabilities for business viability: planning, organization, action, and monitoring. Plan involves identifying opportunities and problems in the present moment to envision steps to achieve future strategic objectives. Organizing requires knowing how to prioritize activities. Action requires alignment and skill to make things work. Finally, monitoring refers to the process of assessing progress and correcting actions.

The next factor, Self-knowledge, with five items, brings together capabilities more focused on the entrepreneurs themselves to identify, recognize, and deal with their strengths and weaknesses, to manage time and their careers. These are attitudes that seem to be at the base of self-knowledge, considering the emotional investment to overcome failures and limitations. Learning and creativity, the third factor, is comprised of six items. The focus of competence is to proactively mobilize in the attempt to acquire new knowledge to be able to apply it in a creative way. Finally, the fourth factor, People Management, combines four items that describe the skills to lead, motivate people, coordinate, and delegate tasks.

Now we turn back to the primary hypothesis of the study, related to the entrepreneurial competencies. The first one (*h1*) was that overall entrepreneurial competencies would predict the perception of satisfactory performance (financial and non-financial). However, this was only confirmed for the Strategy and Planning (SP) competencies, which explains most of the variance of the entrepreneurial competencies. Such skills seem to be those that enable the symbolic and economic value of the enterprise (Beugelsdijk & Maseland, 2011). This result is also consistent with the findings of Sesen and Pruett (2014) who recognized that one of the main barriers to entrepreneurship is the perceived lack of core management competencies.

It was not possible to demonstrate the importance of combining these characteristics, of an eminently cognitive nature (SM), with others of a more affective nature. Thus, the proposal by Jaramillo-Villanueva et al. (2012) was not supported, which concluded for dispositional traits as essential elements to understand the entrepreneurial career. In the analysis undertaken here, Self-knowledge (SK), Learning and Creativity (LC), and People Management (PM) had no significant impacts on predicting the variability of perceived results. Thus, for the six

dimensions proposed by Man and Lau (2000), corroboration was found for the relevance of the opportunity, organization, and strategic competencies (all of them embraced by the SP), but not for the relationship, conceptual, and commitment competencies. These would be the competencies aimed at promoting results considered innovative (Cooley, 1990).

This result could be seen as paradoxical if we take into account that the services delivered by creative entrepreneurs rely on relational and conceptual competencies. Consider an entrepreneur in the music industry, for instance: one core competence to someone who performs in this sector is the skill to develop and maintain a network of strategic relationships. Several deals are made based on the quality and extent of that network, which includes other musicians, agents of the State, sponsors and so on. The same applies to the conceptual competencies: in order to be creative, especially in a sector oriented by innovation, entrepreneurs need be able to master new knowledge and use it in an innovative way. Maybe the lower importance assigned to the relational and conceptual competencies can be related to the idea that the achievement of goals depends primarily on the “hard” skills underlying a business – in this case, strategy and planning.

We also need to consider that most of the participants are either individual entrepreneurs or micro business owners. This situation may explain why the entrepreneurs perceive a narrower range of required core competencies when compared to the range of competencies found in large companies or organizations. On the one hand, this may indicate that the environment in which individual entrepreneurs operate demands a specific set of competencies in order to achieve their goals. On the other hand, this same result may point out to the difficulties faced by artists in creative industries in acting as entrepreneurs in the sense of embracing all the range of entrepreneurial competencies. This last observation was already suggested by Wikström (2009). In other words: an entrepreneur should be able to consider and manage a diversified rank of competencies, from those more business-oriented to those “softer” - such as human management or relational competences.

However, some light on the role of individual-based characteristics in predicting perceived entrepreneurial results can be seen in the findings on the mediation of self-regulation, the second hypothesis of this study (*h2*). The test of this hypothesis proved that effectively there is mediation, as predicted by Pihie and Bagheri (2013), but it would be restricted only to one of the three regulating factors: Self-monitoring. Self-monitoring promotes an active interpretation of information for entrepreneurs in the creative industries (Johnson & Delmar, 2009) about their goals and actions to achieve them. Self-assessment and self-reinforcement, which are part of the construct, do not have a mediating effect.

Thus, the entrepreneurs in the creative industries who developed Strategy and Planning competencies are the ones who do most self-monitoring. Developing such competencies may, therefore, be important in predicting financial and non-financial results in the creative industries, but this relationship works, at least in part (partial mediation), through the process of their entrepreneurs to carry out self-monitoring. Note that the items of this factor focus on the control of attention to evaluate and correct ongoing behavior, which requires high affective involvement, an attitudinal component.

So it seems that it is this particular arrangement of actions that would promote high-level performance (Frese & Gielnik, 2014) and help in explaining the perception of career advancement (Franklin, 2013). As a consequence of this finding, we may conclude that competence acquisition depends on the process of scrutinizing ongoing psychological states and processes. Competencies are more than a stock of knowledge available in “the mind” – they are blocks upon which actions are built. They need to be combined in cognitive, affective and motor actions in order to trigger a successful performance. Self-monitoring is an essential key in getting knowledge transformed into actions.

However, a focus only on self-criticism or self-praise (self-assessment and self-reinforcement), for example, would not be sufficient. It is also important to develop a positive attitude toward the behavior (behavioral intention) and, in this case, self-monitoring plays an important role. These findings align with what is discussed in the context of theories of rational (Fishbein & Ajzen, 1975) and planned actions (Ajzen, 1985). Both adopt the premise that human beings seek and evaluate the information available to make decisions about their actions and behaviors. The assumption is that attitude (distal variable) precedes behavioral intention (proximal variable - willingness to act), which in turn predicts future behavior.

Finally, the third hypothesis (*h3*) tested was that the perception of results (financial and non-financial) would vary depending on the particular activity sector of the entrepreneurs: music, visual and performing arts, literature, and cultural heritage. The hypothesis was partially confirmed, as differences were only about the financial results and only between two sectors. Entrepreneurs from the music industry had higher scores than their counterparts from the performing arts sector. Discrepancies related to the market context of these areas in Brazil could help in interpreting these findings. Although both deal with cultural producers, the music industry has greater national economic expressiveness, being geographically well-developed across the country, and it is probably more business-oriented, when compared to performing arts – a sector still heavily dependent on public support. However, the professionalized and economically competitive structure of the performing arts is mainly concentrated in two states in southeastern Brazil, Rio de Janeiro and São Paulo. This explanation would have to be the subject of further investigation with a control of the representation of the regions of Brazil in the sample.

As a conclusion, we can say that the results presented in this paper support the proposal that entrepreneurial activity should be considered as embracing three key elements (Correia-Santos, et al., 2010; Schumpeter, 1934; Sesen & Pruett, 2014; Vale, 2014). First, the actors or agents responsible for the action underlying entrepreneurial performance. How they perceive their levels of competencies, which ones they think are the most important to support their performance, and how they develop a psychological process (attitudinal) designed to self-monitor and coordinate the actions that combine knowledge, attitudes and a manifest performance in a real context. Future studies are invited to surpass a limitation of this study, namely: the use of self-reported measures. While this makes sense in the attempt of assessing performance as a process, this approach needs to be complemented by objective measures if

we want to evaluate the performance as a result – which rely on sources of information other than individual perception.

Second, the context - individual entrepreneurs (micro business owners) and the sector of activities. Arts domains, broadly speaking (Case, 2000), are still labor-oriented, and artists see themselves primarily as “creators” instead of as entrepreneurs. For some of them, it is sometimes difficult to think and act based on a more business-oriented narrative. However, the context in this study had a secondary role compared to the findings of Geldhof et al. (2014). Nevertheless, these authors investigated proximal contexts such as family environment, associated with symbolic results (intending to follow an entrepreneurial career). In the present study, one distal context was investigated (activity sector), which emerged associated only with financial results of the business.

And finally, the perception of results, both financial and non financial perspectives, is the third component of the phenomenon of entrepreneurship. Ultimately, the survival or the failure of a business depends on reaching successful financial outcomes, despite the economic sector. In creative industries, financial results are sometimes underestimated or are responsible for promoting tensions and conflicts in the artist’s professional experience (Bendassolli & Wood Jr., 2010). These tensions emerge due to two reasons. First, because artists may interpret financial success as something that eventually ends up as a “natural” result of their creative endeavors. When this does not occur, then the artists may face a hard tension between their self-perceived value (as “creators”) and the concretely achieved results.

Second, financial success and non-financial success usually need to be balanced in the artist’s career (Bendassolli & Wood Jr., 2010). It turns to happen that a high level of financial success in creative industries often depends on concessions made by the artist (Bendassolli & Borges-Andrade, 2015). This occurs because people’s behavior regarding art consumption is sometimes much more based on their own tastes than on the artist’s taste or aesthetic preferences. This situation pushes the artist to offer what people want, and not necessarily what he or she is willing to offer as a “creator.” However, as an entrepreneur that supposedly wants to keep their business going, the financial success is an unavoidable target. As a consequence, tensions emerge from the interplay between creative activity and market forces.

The findings of this study also serve practical purposes. In Brazil, SEBRAE (Brazilian Service of Support for Micro and Small Companies) is an agency responsible for most of the investment in training entrepreneurs. It is suggested that alongside the emphasis on the development of strategy and planning competencies, whose focus is on planning, to organize, act, and monitor behavior towards business objectives, actions might be included to improve self-monitoring of future entrepreneurs (e.g., Forgas et al., 2009). This combination could contribute both to improve the focus on attention and monitoring of the entrepreneur’s general behavior, as well as to the development of the moral conscience that is fundamental to ethical behavior in business. The study developed by Bryant (2009) concluded that entrepreneurs who perceive themselves more self-effective appear more proactive and morally aware. Self-efficacy proved to be a mediator of the relationships between emotional regulation and entrepreneurial intention in the study by Mortan et al. (2014).

Entrepreneurship is a complex phenomenon, and its field of study is still in full swing. There is much to be explored. The entrepreneurial competencies approach and its role in predicting entrepreneurial performance add to the numerous efforts to seek its individual and contextual antecedents. The four-competency structure identified in this study deserves to be more carefully investigated through multiple methods. In this study, due to its exploratory nature, we have conducted an exploratory analysis, based on self-report measures. Additionally, it must be taken into account that competencies are manifested less as stable personal traits that are measured at a given moment in time, and more as products of learning processes. Self-regulation is also developed in the primary and secondary socialization process. It arises, then, as an invitation to multimethod studies, mainly including the monitoring of changes over time.

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