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Article

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What do small business owner-managers do? A managerial work perspective

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Abstract

This article proposes management styles to small business owner-managers based on the two most important approaches to managerial work. The managerial work performance of small business owner-managers was analyzed from different perspectives. An important perspective, known as small business owner-manager behavior studies, is founded on the manager's functions (process approach) and roles (roles approach). This perspective is based on studies on the work of the manager of large businesses. Even if on the one hand this transfer of concepts from large to small business reveals problems, on the other hand it has proven to be a rich opportunity for research. This research applied a survey methodology that asked small business owners to answer a questionnaire. The results indicated that both approaches – process and roles – are useful to characterize the work of small business owner-managers. Four managerial styles were identified: (1) activity structuring (2) public relations (3) supervision and leading, and (4) conflict solver. Regarding the four different styles, we believe our paper can contribute to the development and improvement of specific theories about small business management, based on the study of the nature of managerial work.

Keywords: Small business owner-manager; Managerial work; Process approach; Roles approach

Background

The study of small business owner-manager behavior is one of the perspectives used to explain what the owner-manager does. Although it is an important element in terms of theoretical descriptions of small companies (Fillion, 1999), there is still insufficient information about managerial work in small businesses (Florén, 2006; Fuller-Love, 2006; O´Gorman et al., 2005) because most empirical studies on this topic have been conducted in large companies (Carlson, 1951; Carroll and Gillen, 1987; Eriksson et al., 2008; Konrad et al., 2001; Mintzberg, 1973; Stewart, 1976; Tengblad, 2006; Tengblad, 2012.

The term that indicates who is responsible for small enterprises is known by different names according to their attributes in the interests of the company: entrepreneur, owner, manager, entrepreneur-owner, entrepreneur-manager, owner-manager and entrepreneur-owner-manager (Jennings and Beaver, 1995). This article focuses on the individual owner, who establishes and manages a business with the main purpose of furthering personal goals (Jennings and Beaver, 1995), therefore in our paper the term owner-manager of small business is used. Thus, the purpose is to propose management styles to small business owner-managers based on the two most important approaches

to managerial work. Fells (2000) and Lamond (2003) demonstrated the theoretical link between functions (process approach) and roles (roles approach); Lamond (2004) shows the empirical link and, in a similar manner, this paper examines if small business owner-managers simultaneously recognize managerial functions and roles as descriptors of their activity.

The studies and research on managerial work demonstrate considerable effort towards understanding "what do managers do?", and as indicated by Mintzberg (1975) "without a proper answer, how can we teach management?" Subsequently, managerial work has been largely studied (Fondas and Stewart, 1994; Chapman, 2001; Gentry et al., 2008; Dierdorff et al., 2009). Studies have used different designations in the study of what managers "do" (Florén and Tell, 2012). In this article our understanding is initially derived from the studies on the management activities of the manager. Recently, the current validity of the traditional descriptions of managerial work has been questioned.

Many authors have written about changes in the organizational environment, in the labor and also in the market competition, consequently leading to significant changes in the managerial work (Kanter, 1989; Stewart and Fondas 1992; Chapman, 2001; Worrall and Cooper 2001; Semadar et al. 2006; Gentry et al., 2008), or even ideas such as "let's fire all the managers" (Hamel, 2011) and "we are all managers now" (criticism from Grey, 1999). In reality, according to the empirical research of Tengblad (2006) there are no evidences of a radical change in managerial work, so that "managers continued to be worried about their routine, day-to-day monitoring and maintenance of work processes, managing staff and processing information, to the exclusion of instigating change, developing staff and seeking new business opportunities" (Hales, 2002, p. 64). Therefore, the study of managerial work remains valid and important.

What does an owner-manager do in a small company? Some possible answers to this question can be found in the managerial literature. Is it possible to use the methods of large business in small business? The authors of the small business recognize that a small business is not a large business in a smaller scale and that it has its own and specific characteristics regarding its management process (Dandridge, 1979; Welsh and White 1981; Storey, 2004; Fuller-Love, 2006). Nevertheless, to explore the differences or to recognize the management specificities of the small business does not mean to claim that all knowledge produced in large business is inappropriate; in fact, a large part of the knowledge on large business is the starting point of small business research (Jones, 2005; Curran, 2006). Consequently, taking the managerial work reference to the research on small business is useful and fruitful. Hence, we are facing a great research opportunity for "research on managerial work has long traditions; but research on managerial work in small firms is still rather rare" (Andersson and Florén, 2008, p. 40). Thus, there is a research gap which deserves to be better investigated.

Research on managerial work shows two approaches: process approach and roles approach. Both approaches have its defenders and critics. Which approach would be the most useful to describe the work of a small business owner-manager? Instead of choosing one, this work investigates both approaches and analyzes the possibility they are correlated. The feasible combinations of these approaches, according to the choices of small business owner-managers in the questionnaires, will be defined in this work of managerial styles. Managerial styles are a usual pattern or preference in carrying out managerial activities. The contribution of this article regards creating managerial styles

from the opinion of owner-managers about their real practice on managing a small business.

The article is structured as follows: The first section describes the aim of the study. The following section presents the theoretical framework and discusses the main descriptions of managerial work as the research proposition of this study. Section 3 presents the research methodology, data collection and analysis techniques. Section 4 presents the data analysis. Section 5 presents the analysis of results, section 6 presents the discussion, and finally Section 7 draws the conclusions.

Theoretical framework and research proposition

This section presents a literature review on the main approaches to managerial work and a discussion on the suitability of their application in small business. Afterwards, the research proposition is put forward.

The literature has several research lines on the manager's role, the three main ones are: administrative, critical and humanistic. Although the importance of the critical and humanistic lines to assemble knowledge on the manager's role is acknowledged, the administrative line addresses more specifically the manager's everyday functions. This line considers various approaches, but two receive more attention from academics and are still valid despite their long-standing time: the process approach and the roles approach. The process approach is used to rationalize the manager's work by organizing the activities - operational and intellectual - in clusters performed by the managers, called functions. While the roles approach is a classification of the managers' daily activities performed in the companies by ten roles.

Managerial work

In the literature addressing managerial work there are different denominations to classify studies concerning the topic (Hales, 1986; 2001; Snyder and Wheelen, 1978). Carroll and Gillen (1987) and Tsoukas (1994) used the term perspectives for different areas of study. Yukl (1989) used a managerial behavior approach and Snyder and Wheelen, (1978) interchangeably applied theory and approach. Considering this diversity, this research used the term approach for different areas of studies on managerial work.

The two main approaches cited in the literature are found in Fayol (1975) and Mintzberg (1973). Tsoukas (1994) called these two approaches functional and roles, respectively. Yukl (1989) called them managerial work and managerial behavior. Fells (2000) and Lamond (2004) called them process and roles approaches. Carroll and Gillen (1987) and O'Gorman et al. (2005) termed the approaches as classical and roles. Snyder and Wheelen (1978) called them process and role approaches. Therefore, in this article, the original studies proposed by Fayol (1975) are called the process approach and the original studies proposed by Mintzberg (1973, 1975) are called the roles approach. This denomination is in agreement with those by Fells (2000), Lamond (2004) and Tsoukas (1994).

It should be mentioned that there are other important approaches concerning studies on managerial work, such as Kotter (1982) regarding work agenda and leadership; Nadler et al. (1994) on organizational modelling; and Stewart (1963, 1967, 1982) on demands, restrictions and choices in managerial work. A new approach has emerged to

explain entrepreneurial processes. Harms and Schiele (2012, p. 96) state that "Sarasvathy (2001) identified two distinct approaches in describing entrepreneurial processes, namely, causation and effectuation. Causation has connotations of rational planning (ex ante), whereas effectuation is associated with (ex post) emergent strategies". According to Sarasvathy (2001, p. 249), "it is necessary emphasize that effectuation processes are not posited as "better" or "more efficient" than causation processes". Causation and effectuation are complementary approaches to different decisions and actions. Therefore, this paper addresses rational planning, in other words, causation processes. However, since our goal was to focus only on process approach and roles approach they were not included in this study.

The process approach was largely used in academic management books, prevailing over other approaches, and it remains relevant regarding the normative perspective description and the owner-manager's work functions (Carroll and Gillen, 1987; Reid 1995b; Fells, 2000; Smith and Boyns, 2005; Pryor and Taneja, 2010). At the same time, the roles approach is predominant in studies about the activities conducted by managers as well as in the method's application used by Mintzberg (1973), in structured observations and also in other contexts (Kurke and Aldrich, 1983; Pavett and Lau, 1983; Luthans et al., 1985; Florén, 2006; Tengblad, 2006).

A manager's work represents the dynamic and vital work for any and all organizations. It is this individual who determines whether our organizations meet our needs or just waste our talents and resources (Chapman, 2001; Drucker, 1981; Mintzberg, 1975). It is the quality of their work that will determine the continuity or not of the organizations (Drucker, 1981). Therefore, to study the manager's work is to investigate the fundamental component of the organizational success.

The process approach

The main point of the process approach is answering the following question: what are the activities that all managers carry out? (Carroll and Gillen, 1987; Stewart, 1967). First, this approach proposes to sort managers' activities into functions according to a set of principles (Koontz, 1980; Wren, 1994; Wren et al., 2002). Next, these functions are identified as belonging to a cycle, comprising a sequential process in terms of conception and a simultaneous process regarding operation (Chapman, 2001; Koontz and O'Donnell, 1978; Wren, 1994).

Over time the names of the administrative functions were changed, but the original purpose of proposing and debating managerial work assignments was kept. (Koontz and O'Donnell, 1978) recommended that coordination should no longer be treated as a separate function, but instead interpreted as the result of an effective implementation of other functions (Wren, 1994).

Given the different terminologies, this article uses the terms Planning, Organizing, Leading and Controlling to indicate the process approach (Dubrin, 2015, p. 5). Table 1 describes in detail the contents of these functions (Planning, Organizing, Leading and Controlling).

The roles approach

Mintzberg (1973) was the main supporter of the roles approach, also known as the school of daily work activities, belonging to the study area on how managers spend

Table 1 The process approach constructs

Process approach			
Managerial function	Variable	Construct	Description
Planning	P1	Preparation for the future	Thinks about the future, seeks information and analyzes the environment in which the company operates.
	P2	Establishment of goals	Evaluates and defines the company's mission, guidelines, goals and targets.
	P3	Establishment of courses of action and resources	Identifies, evaluates, and selects alternatives and means to accomplish goals.
Organization	O1	Establishment of workflows	Defines workers' attributions and conduct and behavior rules.
	O2	Provision to personnel's needs	Hires personnel, assigns workers' attributions and duties.
	O3	Provision to needs regarding tangible and intangible resources.	Allocates material goods throughout company or financial resources demanded by plan or budget.
Leadership	Ls1	Decision on work implementation	Decides and communicates to subordinates, implementation of plan and workflows. Relays rules and work routines.
	Ls2	Relationship with subordinates	Prompts actions verbally and in writing, responds to initiatives and requests from subordinates, directs, encourages, rewards, and reprimands subordinates, conducts meetings and interferes with interpersonal relationships to solve conflicts.
	Ls3	Dealing with people	Maintains contact with other people who are not subordinated, e.g., customers, suppliers, consultants, service providers or peers.
Control	C1	Monitoring of activity implementation	Evaluates progress of plan through visual, verbal contact, electronic, or written means.
	C2	Analysis of divergences	Compares what has been accomplished with plan and assesses reasons for divergences.
	C3	Provision of information	Provides remaining areas of company with information on plan implementation as it occurs and/or on later occasions (feedback).

Source: prepared by the authors from (Analoui 1995); (Bateman and Stell 1998); (Carrol and Gillen 2002); (Giglioni and Bedeian 1974); (Kirsch 1996) and Koontz and Bradspies (1972); Koontz and O'Donnell (1978); Koontz, O'Donnell and Weihrich (1986); Lamond (2003); Lamond (2004); Machado-da-Silva, Vieira and Dellagnelo (1998); Neinaber and Roodt (2008); Oshagbemi and Ocholi (2005); Ouchi and Maguire (1975) and Yukl (1989)

their work time (Stewart, 1967). This approach derives from the studies of Carlson (1951), Sayles (1964), and Stewart (1963, 1967) and was influenced by Barnard (1971) and Simon (1979), Mintzberg (1973), Williamson (1995), and Wren (1994).

Between (1960; 1970), Mintzberg (1973, 1975) carried out several studies on managerial work (Raufflet, 2005). This author determined that four assumptions on this topic were, in fact, nothing more than myths, namely managers are systematic and reflective planners, effective managers do not perform regular tasks, managers need to accumulate information that is more satisfactorily obtained through a formal system.

Mintzberg (1973, 1975) defined managerial work as a set of activities supported by the formal authority of the manager. The sequence starts with the development of interpersonal relationships, which leads to a network of contacts and access to information, assisting managers in decision-making and strategy formulation. These three groups (interpersonal, informational and decisional roles) represent ten types of roles

played by managers in their daily work routines. However, these roles can change their importance in accordance with the manager's hierarchical position in the organization, and according to environmental factors they are determined by the manager's personal characteristics and variations due to temporal, cyclical or sporadic factors (Mintzberg, 1973). The roles approach still is valid to describe the owner-manager's work (Tengblad, 2006; Lussier and Achua, 2015, p. 11). The contents of these roles are described in detail in Table 2.

Research proposition

Previous discussions indicated that studies linked to process and roles approaches have produced extensive literature over the last decades. Nevertheless, these approaches have investigated aspects of large business, which were studied empirically and independently.

In the initial proposal, the roles approach was distant from the process approach, instead of proposing reconciliation (Reid, 1995a; 1995b). According to (Carroll and Gillen, 1987), the ten roles of Mintzberg (1973) illustrate how managers spend their time, but do not propose activities to the manager. In an empirical research using the roles approach, the results were ambiguous and varied, showing that the roles isolate tasks and associate them to a particular behavior of the manager and not to the management of the organization (Carroll and Gillen 1987; Lamond, 2004).

Thus, the roles approach does not substitute the process approach, but consists of autonomous and independent layers of a managerial process (Carroll and Gillen 1987; Fells, 2000; Lamond, 2004; Wren, 1994). Furthermore, there is an overlap in the descriptions of activities between process approach and roles approach, for example, the leading function and leader role or the controlling function and monitor role. Therefore, these possible complementarities should motivate attempts to integrate the two approaches, since together they could better clarify what the manager does. While the process approach is focused on abstract aspects, the roles approach is focused on observable aspects (Carroll and Gillen 1987; Lamond, 2004; Stewart, 1982; Teixeira, 1981).

A question arose from the literature concerning large business when compared to the reality of small business: if combined, could these two approaches explain, at least in part, what does the small business owner-manager do? Or are the explanations so intertwined to events in large business that no efforts are seen between the reality of a large company and the reality of a small business?

Therefore, the possibility of integrating the four functions of the process approach and the ten roles of the roles approach is questioned in order to describe the work of the small business owner-manager, as seen in Fig. 1.

This question is included in the research proposition as follows: do small business owner-managers simultaneously recognize managerial functions and roles as descriptors of their activity in the company management?

Methods

This section describes the design of the survey research. The research comprises a quantitative and descriptive survey focused on its technical procedures (Forza, 2002).

Table 2 The roles approach constructs

Roles approach			
Role	VAR.	Construct	Description
Figurehead	F1	Participation in social affairs	Participates in external events, e.g., award-granting ceremonies or professional class meetings.
	F2	Attention to visitors	Meets with non-customers visiting the company.
	F3	Promotion of social events	Conceives and sets up social events to promote the company's image or products.
Leader	L1	Guidance in activity implementation	Defines work targets and communicates commands and instructions to subordinates.
	L2	Relationship with subordinates	Criticizes, praises, and motivates subordinates.
	L3	Exercise of authority	Makes sure that subordinates fully understand instructions as well as accept and follow them.
Liaison	Li1	Internal relationships	Develops activities to maintain a set of formal and informal relationships within company.
	Li2	External networks	Establishes external professional networks.
	Li3	Dissemination of internal information	Relays important external information to employees.
Monitor	M1	Information gathering	Identifies and collects information relevant to company.
	M2	Monitoring of internal operations	Assesses company performance in order to make adjustments and changes.
	M3	Monitoring of external events	Verifies what competitors are doing and monitors events in exterior environment.
Disseminator	D1	Information selection	Sorts out which relevant information will be shared with subordinates.
	D2	Information sharing	Shares relevant information with subordinates.
	D3	Confirmation of information reception	Makes sure that subordinates obtain information relevant to task completion.
Spokesman	S1	Preparation of reports	Grants interviews, makes speeches or provides company information to external audiences.
	S2	Communication in company's name	Speaks about company's history or situation at events or meetings.
	S3	Representation of sector	Claims benefits for companies in the same sector.
Entrepre-neur	E1	Promotion of improvements	Changes workflows to improve productivity.
	E2	Proposition of opportunities	Seeks innovations that can become projects in the company.
	E3	Implementation of new projects	Directs implementation of improvement or change in products, services, and management/production methods.
Disturbance handler	Dh1	Solution of routine conflicts	Solves subordinates' conflicts deriving from everyday situations.
	Dh2	Solution to sudden conflicts	Solves subordinates' conflicts deriving from unexpected situations.
	Dh3	Solution of impasses	Solves impasses between subordinates and other people.
Resource allocator	Ra1	Scheduling of commitments	Schedules personal and subordinates' commitments.
	Ra2	Evaluation of budgets	Decides on company's investments (analyzes and selects projects that demand application of financial resources).
	Ra3	Allocation of resources	Allocates financial, material, and physical resources to maximize company's efficiency.

Table 2 The roles approach constructs *(Continued)*

Negotiator	N1	Negotiation of cooperation	Persuades other people to combine forces around company's projects.
	N2	Negotiation of agreements	Negotiates agreements with labor, governmental and legal entities and organizations.
	N3	Negotiation of transactions	Negotiates commercialization of products and services or contracts with other companies.

Source: Prepared by the authors from Mintzberg (1973 and 1975), (Anderson et al. 2002) and Pearson and Chatterjee (2003)

Data on the views of small business owner-managers were collected and processed by statistical analysis.

Selection of participating small business

When selecting the participating business, the characteristics of the target population were taken into account in order to meet the aims of the study (Fink, 2003; Fink and Kosecoff, 1998). The following characteristics were defined for the sample: companies classified as small business, belonging to the target population and to the metal and machine manufacturing industry, as well as independent from large companies.

The number of employees was the criterion used to define the size of the company. According to the European Commission (European Commission, 2014, p. 10), a micro enterprise has fewer than 10 employees, a small enterprise has fewer than 50 employees and a medium enterprise has fewer than 250 employees. The total staff of a company includes full time workers, temporary staff, outsourced staff and members of the owner's family. In order to determine whether the companies belong to the metal and machine manufacturing industry sector, criteria established by the IBGE - *Instituto Brasileiro de Geografia e Estatística* (Geography and Statistics Brazilian Institute), CNAE - *Classificação Nacional de Atividade Econômica* (National Classification of Economic Activity) were followed, which adhere to international parameters (Concla, 2008).

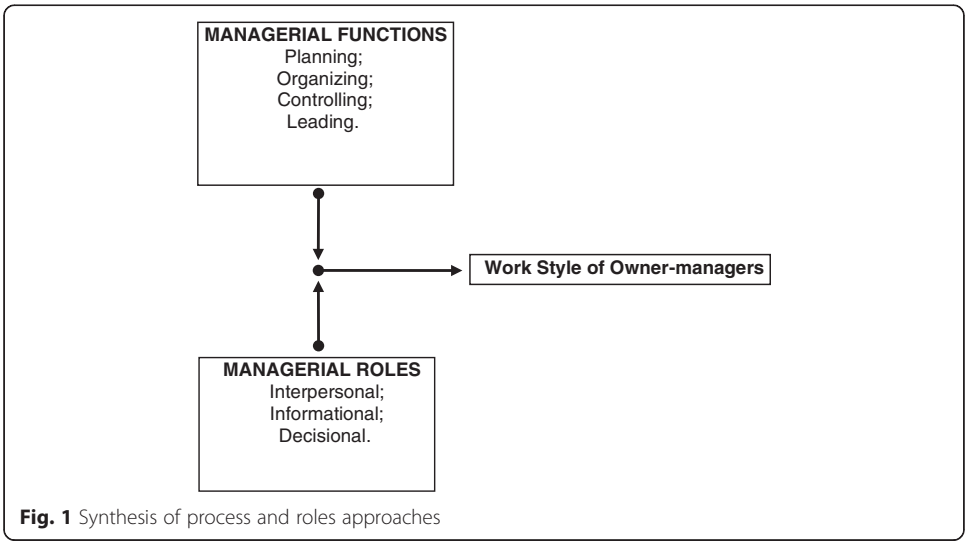

Fig. 1 Synthesis of process and roles approaches

The sector selected for this study was the metal and machine manufacturing industry in five cities in the State of São Paulo, Brazil. This Brazilian State was chosen for this study because of its importance to the country's economy. It is the most populous and industrialized Brazilian state among the 27 states; São Paulo alone accounts for more than 33 % of Brazil's Gross Domestic Product (GDP). Its population exceeds 41 million, if it were a country it would be among the 40 most populous in the world and its economy would be among the five largest in South America, surpassing countries like Argentina and Uruguay. The educational institutions in this state are among the most important in the country and occupy a prominent position worldwide. The State of São Paulo has a diversified economy, with several consolidated industrial segments, especially the manufacturing industry, of which the state concentrates 43.1 % of the national value (IBGE, 2013; SEADE, 2007; 2009). In this segment, the metal-mechanic sector is very important as it is one of the pillars of the Brazilian economy with great social relevance because it generates employment and income (Santamaria, 1994).

Constructs

In order to outline the questionnaire, two sets of constructs were prepared based on a literature review. In addition, an equal number of questions and a similar measurement scale were used. Thus, the study included three questions for each research topic of interest (four managerial functions and ten managerial roles) and the seven-point Likert scale to collect the owner-managers' responses. Table 1 lists the constructs used when defining the questionnaire to collect data related to the process approach.

Besides the contents in Table 1, the pioneering study of Mahoney et al. (1965) on the categories of managerial work functions, as well as a questionnaire used by Lamond (2004) were consulted. The latter author studied the possibility of combining the process and roles approaches. The aim of the questionnaire was to understand the activities performed by managers by surveying 60 managerial behaviors, divided into two situations: (a) how managers would like to carry out their duties, and (b) how they are actually performed.

Table 2 shows the constructs used in defining the questionnaire for the roles approach. This section of the questionnaire was formulated from the studies of Mintzberg (1973; 1975) on the evaluation of works and scales devised to collect data on the ten managerial roles, from Anderson et al. (2002) and Pearson and Chatterjee (2003). The questionnaire used by Anderson et al. (2002) was available in the article they published, whereas the questionnaire used by Pearson and Chatterjee (2003) was not available in their article – the reason why a copy was requested via email, which was received in early March 2009.

Data collection and sample characteristics

After the three pre-tests, the questionnaire was applied personally or sent by email to collect data from 25/09/2009. The average reply time from the first contact to receiving the questionnaire was 20 days. The shortest time was 1 day and the longest 66 days. The period in which most responses were received, 20 %, was the second week of November. By the end of that month, the number of responses had reduced. Therefore, the last contacts were made with the remaining companies and data

collection ended on 18/12/2009, thus the data collection process was from September to December 2009. The sample was defined by convenience and was non-probabilistic. Despite such limitation, the convenience sample was shown to be relevant for the purposes of this article, once all companies of the target population were contacted. Moreover, historically, the sector of the companies included in this article have no tradition of participating in scientific research; during the data collection period several leaders mentioned it was the first time they took part in an academic research. The low participation in academic research of companies from the metal-machine manufacturing industry required the researchers to implement different means of data collection, according to the manager's preference (via internet or in person). By doing so, this study succeeded at diminishing the barriers of collecting data while also proposed theories for small business in this sector.

During data collection, the objective was to reach a representative amount of companies of the target population, which totaled 228 companies, as seen in Table 3.

To process the data 70 questionnaires were applied. 30.7 % represented the population, as shown in Table 3. This set of companies encompasses several segments of the target population. Of this total, 30 % presented annual revenue of 240 thousand reais (the Brazilian currency) in 2008, 47 % presented annual revenue from 240 thousand reais to 2.4 million reais, and 23 % presented revenue of over 2.4 million reais. Eighty percent of the participants were company owners. The average age of the participants was 45, of which 37 % had finished secondary school or a technical course, 36 % had undergraduate diplomas and 17 % had completed a post-graduation course. The companies had been open for an average of 17.6 years, the newest company one year and the oldest 56 years. The average staff number was 33.5 employees, the company with the fewest employees had only 1 and the largest company had 236. Table 4 shows a summary of the characteristics of the study, considering EU classification (European Commission, 2014, p. 10), divided into three groups of employees: up to 9 (26 micro enterprise), 10 to 49 (29 small enterprise) and 50 to 249 (15 medium enterprise).

Results

According to the results regarding variables of the four functions of the process approach, constructs showed average values above 4.0. The lowest average was 4.7 (SD = 1.6) for the third variable of the Organization construct, and the highest average was 5.9 (SD = 1.0) for the second variable of the Planning construct. With respect to the roles approach, the Figurehead and Spokesman constructs presented

Table 3 Final sample distribution

City	Target population		Answers (valid)			
	Number	Percent	Number	% (answers)	% (city)	% (population))
Américo Brasilense	12	5.3	3	4,3	25.0	1.3
Araraquara	61	26.8	14	20,0	23.0	6.1
Matão	31	13.6	4	5,7	12.9	1.8
São Carlos	102	44.7	47	67,1	46.1	20.6
Sertãozinho	22	9.6	2	2,9	9.1	0.9
TOTAL	228	100 %	70	100 %	–	30.7 %

Table 4 Three groups from the number of employees

	Number of employees			
	<10	10-49	>249	∑
Amount	26	29	15	70
Billing				
<240 thousand (reais)	24,29 %	4,29 %	1,43 %	30,00 %
>240 thousand < 2,4 million (reais)	12,86 %	30,00 %	4,29 %	47,14 %
>2,4 million	0,00 %	7,14 %	15,71 %	22,86 %
∑	37,14 %	41,43 %	21,43 %	100,00 %
Life Span of SB				
1-5 years	10,00 %	7,14 %	0,00 %	17,14 %
6 - 10 years	4,29 %	2,86 %	5,71 %	12,86 %
>11 years	22,86 %	31,43 %	15,71 %	70,00 %
∑	37,14 %	41,43 %	21,43 %	100,00 %

the lowest averages. The three variables of the Figurehead construct had averages of 3.3, 3.9, and 3.0 and for the Spokesman construct, they were 3.6, 3.6 and 4.1. In this approach, responses with a frequency equal to or above 5 prevailed, and some of the 'very rarely' and 'rarely' options of the Planning, Organization and Control constructs remained without frequency scores. It was observed that the values were scattered among the seven categories, with values predominantly equal to or higher than 5 (several times), except for the Figurehead, Spokesman and Negotiator constructs, which had at least one of the response items with the highest frequency of 'sporadically' or did not yield values lower than 5.

This section provides an overview of the data on the forty-two constructs, divided into fourteen groups, representing the four managerial functions and the ten managerial roles. The next section will analyze the data used to obtain the results.

The factor analysis technique was chosen for processing the data after analyzing the results of a survey on statistic techniques applied by the main researchers working on the subject, such as: Lau and Pavett (1980), Pavett and Lau (1983), Lubatkin and Powell (1998), Lubatkin et al. (1999), Konrad et al. (2001), Gottschalk (2002), Anderson et al. (2002), Pearson and Chatterjee (2003), Khandwalla (2004), Mellahi and Guermat (2004), Mahoney et al. (1965), Lau and Lim (2002) and Lamond (2004). The purpose of this technique is for an exploratory and not confirmatory analysis, we did not focus on generating inferences to the population, but rather on contributing to the proposition of a managerial style model, therefore, an Exploratory Factor Analysis (EFA) was used.

Processed by extracting key components and to better interpret the variable weights in factors, an orthogonal factor rotation using the Varimax method was used, in which significant weights were high and all others were close to zero, i.e., the objective is to maximize the variation between the weights of each factor, hence the name Varimax (Hair JR et al., 2006).

The Eigenvalues were used to extract the number of factors which had values greater than one (KAISER, 1958) and a chart known as the Scree Plot was used to assist in this definition. After using the simulations with different numbers of factors to search for a

better solution, four factors were reached, since from the fifth factor onwards the load values were below 0.6.

The Bartlett's test of Sphericity and the Kaiser-Meyer-Olkin (KMO) adequacy measurement test were used to verify the usefulness of the factor model. The Bartlett test at a significance level of 0.05 and df = 861 resulted in a Chi-Square equal to 2076.3 and rejection ($p < 0.05$) of the null hypothesis that the population correlation matrix was an identity matrix, i.e., that the variables were not correlated in the population. Thus, it was accepted that few factors could represent a large fraction of data variability. The KMO test results showed a statistical value (KMO) of 0.648. High KMO values, usually above 0.6, indicate that pairwise correlations can be explained by other variables, and therefore the results of the factor analysis in question are considered appropriate (Malhotra, 2001).

The Harman's single-factor test was applied in order to verify the incidence of problems due to the common method variance (i.e. the variance that is attributable to the measurement method rather than to the constructs the measures represent) (PODSAKOFF et al., 2003, p. 879). This test is "one of the most widely used techniques that has been used by researchers to address the issue of common method variance is what has come to be called Harman's one-factor (or single-factor) test" (PODSAKOFF et al., 2003, p. 889). The results of the Harman's single-factor test pointed to the Eigenvalue of 10.808 and to Explained variance of 25.73 %, the lowest value of 50 % indicated the lack of bias common method, that is why the data was considered satisfactory to carry out this exploratory factor analysis.

The factor analysis results indicated the occurrence of four factors. Each factor grouped a set of constructs highly correlated to each other and weakly correlated to constructs of other factors, thus indicating that the owner-managers under investigation had valued managerial functions and roles in four different ways. Table 5 shows the profiles, variables and loads of the factors identified in the factor analysis.

The values showed a positive correlation for all factors and were high in the Factor A Eigenvalue (10.808) (as for the rest, Factor B (3.848), Factor C (3.222), and Factor D (2.546)). We also observed that Factor A explained 25.73 % of data variation; Factor B, 9.16 %, Factor C, 7.67 %, and Factor D, 6.06 %. Subsequently, the Cronbach Alpha Test was applied and provided the following results: 0.838, 0.789, 0.862, and 0.877. Considering these results and taking into account the purpose of this study, these values were deemed acceptable. Below, we present the profiles of the four extracted factors. Despite the low percentage of explained variance for factors C and D, these factors were inserted because of their eigenvalues well above 1.00, meaning that factors with low variance retained relevant information. Of the 42 variables, Tables 1 and 2, only 22 were selected to compose the four styles.

Analysis of results

The factor analysis results indicated that it is probable that the small business owner-managers in question performed work consistent with the managerial functions and roles. However, concerning the roles, the generated factors did not correspond to the three groups proposed by Mintzberg (1973): interpersonal, informational and decisional. In view of the four factors generated by statistical analysis, it is proposed that these elements

Table 5 Profile of constructs explained by factor analysis

Constructs	Factor A	Factor B	Factor C	Factor D
P2	0,617455			
P3	0,617455			
O2	0,617455			
Ls1	0,617455			
C1	0,617455			
C2	0,617455			
F1		0,664758		
S1		0,643767		
S2		0,723488		
S3		0,703547		
L1			0,669875	
L2			0,751812	
L3			0,744203	
Li3			0,609515	
M1			0,666348	
M2			0,799069	
M3			0,796885	
D1			0,717400	
D3			0,657799	
Dh1				0,835684
Dh2				0,869441
Dh3				0,793780
Eigenvalue	10.808	3.848	3.222	2.546
Explained variance (≅48.56 %)	25.73 %	9.16 %	7.67 %	6,06 %
Cronbach alpha	0.838	0.789	0,862	0,877
Expl.Var. (sum of squared eigenvalues)	7.154	4.128	5,609	3,533

define owner-managers' managerial styles when dealing with everyday events at their companies. The opinion or managerial position used by owner-managers with respect to corporate events can be attributed to style.

Managerial style was formulated from the argument of (Grigerenko and Sternberg, 1995) and (Sternberg et al., 2008), as one usual pattern or preference in carrying out activities and from Lamond (2004), as a description of one set of preferences expressed by the owner-manager, when the contents of the process and roles approaches are exposed. So, managerial style is understood as one set that mirrors the day-to-day activities expressed by the owner-manager (predominant set of constructs presented in Tables 1 and 2) to conduct the daily activities and interacting with other persons, with specific characteristics to differentiate it from other standards of conduct.

In Factor A, shown in Table 6, there are only process approach constructs, indicating consistency between the Planning and Control concepts and to small business owner-managers with respect to these functions. Factor A points to a means of structuring activities, mainly characterized by simplified execution of the managerial function cycle.

Factor B, shown in Table 5, comprises four constructs associated with the Figurehead and Spokesman roles, indicating complete adhesion to public relations activities, a term

Table 6 Characterization of the managerial styles of small business owner-managers

Style	Approach	Function or role	Construct
Activity Structuring	Process	Planning	goals
			Establishing procedures and resources
		Organization	Provision to personnel' s needs
		Leadership	Decision on execution of work
		Control	Supervision of activities
			Analysis of deviance
Public Relations	Roles	Figurehead	Participation in social events
		Spokesman	Preparation of reports
			Communication on behalf of company
			Sector representative
Supervising and Leading	Roles	Leader	Guidance on task execution
			Relationship with subordinates
			Exercise of authority
		Liaison	Dissemination of internal information
		Monitor	Information gathering
			Supervision of internal operations
			Monitoring external events
		Disseminator	Information screening
			Assurance that information is properly received
Conflict Solver	Role	Disturbance handler	Guidance on task execution
			Relationship with subordinates
			Exercise of authority

chosen to label this style. Factor B reveals owner-managers' acknowledging the importance to their companies taking a stand concerning the external environment, whether by building social networks or disseminating relevant information.

In Factor C, shown in Table 6, there are only interpersonal and informational roles indicating a managerial style of collecting external information relevant to the company, information screening and dissemination to employees, and instruction and verification that the information disseminated has been understood by the interested parties. In essence, owner-managers take on a style of monitoring external information and instructing their subordinates on how to deal with it. Owner-managers do not make all information available to workers; they only communicate what has been screened.

Factor D, shown in Table 6, comprises only elements of the disturbance handler role. There is widespread understanding that small business owner-managers spend most of their work time in solving problems, which may explain identifying with this role. Owner-Managers are conflict and impasse solvers; they are the ones that have the authority to get activities going when workers disagree.

The results presented the style factors, shown in detail in Table 6. The contents of these styles point out that the owner-managers possibly perform the four administrative functions on a daily basis in the process approach and seven out of ten roles in the roles approach. Taking this into account, the research proposition of a relationship between the process and roles approaches with the work carried out by the manager of a small company can be accepted. This result corroborates the propositions of Lamond

(2004), Parker and Ritson (2005a; 2005b) and Pryor and Taneja (2010), which are used not only by Henri Fayol's process approach, but also by Henry Mintzberg's roles approach to describe the manager's activities at high hierarchical levels. Considering this, the two approaches should be seen as complementary and non-exclusive. Moreover, the result corroborates the studies carried out by Hales, (1986), Fells (2000) and Lamond (2003; 2004), which indicate that the description of the managerial activities of the small business owner-manager is more effective when combining the process and roles approaches.

Of the 42 constructs revised (Tables 1 and 2) and used in this field study, only 22 (Table 6) were rated as important by the owner-managers analyzed. This fact suggests that small business owner-managers pick and choose managerial work contents. In addition, it was shown that the selected constructs were rated differently regarding importance, which allowed the composition of four styles (Table 6). These styles have been labeled as: (1) activity structuring; (2) public relations; (3) supervision and leading; and (4) conflict solver, bearing in mind the extension and purpose of their constructs.

Discussion

The first style comprises the four managerial functions of the process approach. However, instead of representing the aspects set down by Fayol (the conception of wide-ranging formal processes to organize the management of large numbers of employees and extensive resources) and extending the scope of managerial action beyond the small business owner-manager's workplace presence, this style depicts the structuring of activities within the limits of managers' physical and visual coordination. In small companies this structure depends greatly on their owner-managers' will power, because they are the ones who decide when and what can be done. The first priority of activity structuring is usually to meet customer needs, therefore it mirrors what companies should establish to meet their commercial aspirations at that moment. To this end, goals and courses of action are defined, even in the absence of a systematic process (in a similar way, Verreynne, 2006, p. 220) asserts that "small business owner-mangers can expect little benefit from employing highly rational processes", as well as the exercise of coordination based on the owner-manager's workplace presence and authority through direct relationships with subordinates. The "activity structuring" style points to the importance of the process approach, thus mitigating negative criticism; the Planning and Control managerial functions are important to small business owner-managers. The maxim, often heard in the business milieu, that nothing important happens in a small company without its owner-manager's consent seems to find grounds in that style. Activity structuring describes the establishment of ends, means and resources, as well as the beginning of implementation and monitoring of relevant business activities.

The public relations style indicates that small business owner-managers relate to the external community. However, most of the time they do so unintentionally. Contact is usually initiated externally, because owner-managers do not recognize the advantage of organizing these activities. Due to involvement in internal activities, at first they do not perceive how using this style benefits their companies because this advantage is usually of a subjective nature. The public relations style depicts owner-managers' acknowledgement of social networking and external communication as important to the management of small companies. Setting up professional networks has often been neglected,

probably reflecting a desire of non-intervention in technical and business aspects by third parties. Accepted social networking indicates the need to communicate and to advocate relevant community issues.

The third style, supervising and leading, represents the professional relationships in small companies from the metal and machine manufacturing industry. Their owner-managers are concerned that communicating relevant information to subordinates for the activities to be appropriately performed, most of this information is of a technical nature. Therefore, concerns about employees' social and motivational aspects are lessened and coordination is conducted by the owner-managers themselves. The content of the supervision and leading style is very similar to the roles suggested by Mintzberg (1973), i.e., interpersonal and informational, relationship construction, as well as information gathering and dissemination. However, it has a different meaning, since here managers seem to invert the action logic of managerial roles by having information acquisition feed the relationships with their subordinates.

In the fourth style, owner-managers deal with routine and unexpected problems, thus the need to search for new solutions, however within the constraints of existing resources. Activity performance in this style shapes how the culture of a small company is manifested. As its manager makes a decision on a given issue, he or she sets a pattern of internal behavior, which becomes the reference for similar situations. The problem solver style is present in owner-managers who see the management of a small company as repeated problem-solving. This style specifically portrays conflicts among employees as knots to be untied so that activities can flow as usual.

In order to verify the implication on the company size, considering the number of employees, for the construction of styles, the comparison of results with two different groups of companies was carried out: (i) up to 10 employees, (45 companies) and (ii) with companies with more than 21 employees (45 companies). In general, by the leaders' choice of constructs, it can be stated that the sample results of the group (i) is quite close to the results of the total sample. Observing how styles are formed in the three groups, in terms of style to structure the activities, the leaders of the groups (ii) emphasizing more organizations and both emphasize the control; regarding the public relations style there is no difference; concerning the supervising and leading style both emphasize the entrepreneurial and negotiating activities; regarding the solving conflicts style, both are exactly the same, according to Table 7.

In short, the main objective of this study was to demonstrate that managerial functions and roles can be used in an effective manner to describe the work of small business owner-managers from the metal and machine manufacturing industry. It is suggested that this set of styles is consistent with the realities of small companies. Although the styles are represented in a static manner, they are in fact dynamic. The evaluation formats of the managerial styles are influenced by the conditions of the companies and characteristics of the managers. Thus, it means there is a style that depicts with greater reliability the owner-managers' style preference, however these preferences (style) are not mutually exclusive, the owner-managers may use more than (one, two, three?) simultaneous style, which are determined by several factors, such as the company's organizational development stage, based on the theory of small company's organizational life cycle (OLC). Additional details on this theory can be found in the papers of Churchill and Lewis (1983), (Dodge et al. 1994) and Greiner (1998).

Table 7 Analysis of managerial styles (4 factors: A, B, C and D) considering three groups of employees (<=21, total and > =10)

		VARIABLE	Employees			CONSTRUCT
			<=21	Total	>=10	
PROCESS APPROACH	Planning	P1				Preparation for the future
		P2	A	A		Establishing goals
		P3	A	A		Establishing courses of action and resources
	Organization	O1	A		A	Establishing workflows
		O2		A	A	Provision to personnel's needs
		O3				Provision to needs regarding tangible and intangible resources.
	Leadership	Ls1	A	A	A	Decision on work implementation
		Ls2	A			Relationship with subordinates
		Ls3				Dealing with people
	Control	C1	A	A	A	Monitoring of activity implementation
		C2	A	A	A	Analysis of divergences
		C3				Provision of information
ROLES APPROACH	Figurehead	F1		B		Participation in social affairs
		F2			B	Attention to visitors
		F3	B			Promotion of social events
	Leader	L1	C	C	C	Guidance in activity implementation
		L2	C	C	C	Relationship with subordinates
		L3	C	C	C	Exercise of authority
	Liaison	Li1				Internal relationships
		Li2			C	External networks
		Li3	C	C		Dissemination of internal information
	Monitor	M1	C	C	C	Information gathering
		M2	C	C	C	Monitoring of internal operations
		M3	C	C	C	Monitoring of external events
	Disseminator	D1	C	C	C	Information selection
		D2			C	Information sharing
		D3	C	C	C	Confirmation of information reception
	Spokesman	S1		B	B	Preparation of reports
		S2	B	B	B	Communication in company's name
		S3	B	B	B	Representation of sector
	Entrepreneur	E1				Promoting improvements
		E2			C	Proposition of opportunities
		E3			C	Implementation of new projects
	Disturbance handler	Dh1	D	D	D	Solution of routine conflicts
		Dh2	D	D	D	Solution to sudden conflicts
		Dh3	D	D	D	Solution of impasses
	Resource allocator	Ra1				Scheduling of commitments
		Ra2				Evaluation of budgets
		Ra3				Allocation of resources
	Negotiator	N1			C	Negotiation of cooperation
		N2				Negotiation of agreements
		N3				Negotiation of transactions

Finally, we present directions for future studies and the limitations. As this study considered small companies as a homogeneous group, we recommend further research to investigate how the organizational life cycle stage or groups of employees (such as up to 99 and 100 to 500) affects this characterization of management style, to identify how the importance attributed to the styles by owner-managers changes as companies change their stage. In addition, we recommend complementary research to compare the results obtained for the metal and machine manufacturing industry in this study to those of other sectors, especially regarding the eighteen constructs that were not included in the styles.

One limitation in this study is the sample convenience, another is the very small sample size, and a third limitation is the single country context. Brazil is the biggest country of South America and the fifth biggest of the world in land area, which includes one

of the largest ethnic and cultural diversities of the world. In 2013, it was the ninth in population, with an estimated 200 million people and the seventh world economy, with GDP (Gross Domestic Product) of $ 2,246 trillion World Bank (2015). According to the World Trade Organization (WTO) data it was the 21st in export and the 20th in import. It is part of the group of countries with emergent economy, known as BRICS (Brazil, Russia, India and China, including South Africa). Therefore, in spite of this limitation, Brazil is a representative country for the course of these types of studies.

Conclusions

This study investigated managerial work and proposed the description of managerial styles of small businesses owner-managers based on the process and roles approaches. Our results indicate that the two approaches are reconcilable, in agreement with the authors of process approach proposals, such as Carroll and Gillen (1987), Fells (2000), and Lamond (2004), who state that the process approach is valid to describe the work of small business owner-managers. The results also point to the separation of constructs of managerial functions and roles, suggesting that descriptions of the two approaches are conceptually different. Thus, instead of overlapping, they appear to represent complementary descriptions about the work of small business owner-managers as interpreted by the owner-managers themselves. This result represents a step towards confirming the integration of managerial work descriptions, a proposition also claimed by Mintzberg (1997; 2010).

These findings show a suggestion of the description of managerial work as a set of four styles, which are valued differently by different small business owner-managers. Besides these theoretical contributions, on the practical side, refining this set of forty-two constructs down to just twenty-two makes way for training procedures that are better suited to the reality of small companies. Furthermore, grouping functions and roles into styles favors management development in Small and Medium-sized Enterprises (SMEs), as the managers of these companies learn, mainly, by experience when performing daily activities (Coetzer et al., 2011).

It was not our intention to extrapolate the results to other populations, but rather to seek administrative and managerial standards in companies that comprise the industrial region of the metal-mechanical sector, which have their own characteristics and are derived from a traditional sector.

Competing interests

J.O., E.E.F. and D.R. prepared the background. J.O., M.S.N. and A.S.F. designed the methods. J.O., E.E.F., D.R, M.S.N. and A.S.F. carried out analysis of results and discussion. J.O. and E.E.F prepared the conclusions and the manuscript. J.O., E.E.F., D.R., M.S.N. and A.S.F. give final approval of the version to be submitted and any revised version. The authors declare that they have no competing interests.

Authors' contributions

J.O., E.E.F., M.S.N., A.S.F. and D.R. designed this study, analyzed the data, and wrote the paper. The authors declare that all authors have read and approved the final manuscript.

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