



Management Model for Micro and Small Enterprises Supported by Maslow's Theory: An Option for Graphic Industry in Brazil

Luiz Botana, Pedro Oliveira Costa Neto

► To cite this version:

Luiz Botana, Pedro Oliveira Costa Neto. Management Model for Micro and Small Enterprises Supported by Maslow's Theory: An Option for Graphic Industry in Brazil. Bernard Grabot; Bruno Vallespir; Samuel Gomes; Abdelaziz Bouras; Dimitris Kiritsis. IFIP International Conference on Advances in Production Management Systems (APMS), Sep 2014, Ajaccio, France. Springer, IFIP Advances in Information and Communication Technology, AICT-439 (Part II), pp.138-145, 2014, Advances in Production Management Systems. Innovative and Knowledge-Based Production Management in a Global-Local World. <10.1007/978-3-662-44736-9_17>. <hal-01387858>

HAL Id: hal-01387858

<https://hal.inria.fr/hal-01387858>

Submitted on 26 Oct 2016

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution 4.0 International License

Management model for Micro and Small Enterprises supported by Maslow's Theory: an option for graphic industry in Brazil

Luiz Flávio Suarez Botana¹, Pedro Luiz de Oliveira Costa Neto¹

¹ Paulista University-UNIP, Graduate Program in Production Engineering, Dr. Bacelar St. 1212, São Paulo, Brazil

{flaviobotana@uol.com.br; politeleia@uol.com.br}

Abstract. Brazil's graphic industry is mainly composed by Micro and Small Enterprises (MSE), that are undergoing technological and market threats. The proposal of this study is to analyze the feasibility in elaborating a simple and practical management model, based on Maslow's Hierarchy of Needs Theory, for application on MSEs in the graphic branch. The feasibility analysis was performed through the similarities between humans and businesses: a method much used for the development of management tools. It has been revealed, in the analysis of prepositions for the development of a theory of motivation, a high similarity between the original text applied on humans and their interpretation for application in business, which opens doors for the development of the proposed management model.

Keywords: maslow, graphic industry, small enterprises, management

1 Introduction

The Micro and Small Enterprises have a relevant role in Brazil's economy, but due to its structure, lacks effective business management. Particularly in the graphic industry, whose structure basically consists of micro and small family companies with local operations, it is noticed that the abilities and knowledge of its owners is focused on technical and commercial aspects: lacking proper management. However, the development and implementation of a management model can suit the entrepreneurs needs and provide them with new business tools to enhance their competitiveness in highly competitive markets.

Thus, the objective in the present work is to discuss the feasibility of creating a simple and practical management model, developed in stages and allows the manager of a small or micro graphic industry to conduct their businesses more professionally and with more focus on results.

Micro and Small Enterprises in Brazil .

In Brazil the company size is set according to the number of employees. Within the industry branch, micro businesses have up to 19 employees and small businesses are those that have from 20-99 employees [1].

Micro and small enterprises (MSEs) have a significant role in Brazil's productive structure. In 2010 there were 6.1 million MSEs, which represents 99% of the total establishments in the country, and they account for 14.7 million jobs, representing 51.6% of the total employment, and 39, 7% of the compensation paid to formal employees in the non-agricultural private enterprises [1].

Another relevant aspect is the growth in numbers of MSEs and the increase of jobs in the 2000s. The number of stores rose from 4.2 million in 2000 to 6.1 million in 2010, with an average growth of 3.7% per year, and the number of jobs increased from 8.6 million to 14.7 million, with an average growth of 5.5% per year [1].

One issue that influences the quality an MSE management, is the scholar history of its owner. PNAD (National Household Sample Survey) 2009 showed that 39.9% of employers, regardless of property size, are illiterate, and have incomplete or complete primary education/ incomplete high school education. If we include those with complete high school education / incomplete higher education, this number rises to 75.9% [1].

The Brazilian Graphic Industry.

The graphic industry is an influential segment in Brazil, with gross income of R\$ 44 billion annually and employing 225,000 people in 2012. This industry segment has strong participation by the MSEs. A total of 20,631 companies in 2012, 90.1% are micro and 8.5% are small. The remaining 296 companies are medium or large companies. Economically the graphic industry represents 0.4% of GDP (Gross Domestic Product) of the country, representing 2.2% of the manufacturing industry [2].

This profile of the Brazilian graphic industry is not peculiar. Compared with the European printing industry, the structure is quite similar. The European printing market consists of 121,000 firms that had income of 88 billion euros in 2010, and 714,000 employees. Among the total number of companies in Brazil, 95% have standards that classify them as micro and small [3].

The Brazilian graphic industry presents indicators that concern the sector managers. Although the physical production of the manufacturing industry had a growth perspective in 2012 of 1,2% for the year of 2013, the graphic industry beckoned with a fall of 5,6% [2].

Furthermore, Brazil's graphic industry's trade balance has decreased in the past recent years. In addition, the commercial income the industry fell from 64.4 millions positive dollars in 2006 to a negative of 269,5 millions of dollars in 2013. This decrease was particularly accentuated since 2010.

Another relevant aspect of Brazilian's graphic industry is a decrease in the level of investment in machines and equipment, which has been dropping since 2008. A descent of 12% in 2012 and 3% in 2013 [2]

The scenario presented is decreasing the confidence for graphic businessman, now standing on the lower level of the last 4 years according to data from the periodic

survey conducted by CNI (National Confederation of Industry). Overall, confidence in graphic entrepreneur is lower than average, and has decreased in the last 3 years.

2 Methodology

In applying the similarities between human and business, the feasibility of elaborating a management model with the same structure of the Hierarchy of Needs Theory by Maslow, the results will be analyzed for application in the management of Brazilian MSEs in the graphic area. A SWOT analysis was applied to the Brazilian Graphic Industry in order to sustain the tests, performed through the analysis of 16 "propositions about motivation that must be incorporated in any realistic motivation theory" proposed by Maslow in the "Preface to the Theory of Motivation" of his work *Motivation and Personality* [4].

Adopting the similarity between businesses and humans has formed the basis for various applications in the business world. Ichak Adizes presents the Managing Corporate Life Cycle methodology [5], using the behavioral similarities of living organisms and organizations, furthermore, applying a terminology completely related to the human being's life cycle. Jair Moggi also developed the cellular model on business management based on this type of similarities, citing some human characteristics as organizational characteristics that enterprises are seeking to incorporate on their everyday [6]. In this case, the similarities were stated by the authors by reasoning over the existence of a strong, medium or low relation between Maslow's citations and MSEs reality.

The recognition of the Hierarchy of Needs Theory of Maslow and its accessible information, altogether with the fact that it deals with the organization of motivations in steps, reveals an interesting adequacy for use in small companies, object of this study.

3 Theoretical Foundation Applied

Maslow's Hierarchy of Needs Theory.

The Hierarchy of Needs Theory was developed by Abraham Maslow (1908-1970) and presented the concepts in his book *Motivation and Personality* (1954). Although it is a theory challenged many times, it is the most used by the business branch.

Maslow's theory classifies human being's needs in five levels, and the basis of the theory is that each level of need must be fulfilled before the next, following a hierarchy.

Maslow defines the following levels of human's needs:

- Basic/physical needs: items that assure the individual's survival and the preservation of the species. The needs attributed to this level are food, shelter, rest and reproduction.

- Safety needs: stability and maintenance of possessions. It is the search for privacy and protection from threats. This level includes health and well being, physical and financial safety and protection from the unexpected.
- Social needs or association needs: attributed to the need to 'belong'. The aspects included are relationships based on emotion, intimacy, friendship and social interactions, formation and maintenance of family and participation in organizational groups.
- Self esteem or status needs: this level includes self confidence, the need for social approval and acknowledgment, respect, prestige, and the consideration of a group, in addition to the feeling of independence and autonomy.
- Self realization needs: is the highest level of humans' motivations. Consists in enjoying to the fullest the human potential; to do what one wants, what one likes what one knows.

The broad recognition of the Hierarchy of Needs Theory as an instrument for the study of human motivation is attested by the amount of articles that base their conclusions on this Theory. Ferreira et al [7] studies the correlation between the educational level and the perception of motivational factors of Maslow's theory at the workplace. Kotliarov built a mathematical model of Malsow Theory on a basis of special non-continuous functions[8] and Saeednia et al developed a reliable scale measuring basic-needs-satisfaction for adults[9].

SWOT analysis of Brazil's Graphic Industry.

The internet changed the way companies buy, sell and produce. For the graphic industry, in addition to these changes, one more intense was the change in communication, for the core business of the graphic industry is written communication.

Websites, digital documents, emails and ecommerce affected the structure on communication, and consequentially, the traditional structure of the graphic industry. Products that were purchased in print shops can nowadays be printed on personal printers [10]

The graphic industry has also been undergoing technological transformations considered disruptive, such as the digital processing of images and digital printing growing in the graph market, in quantity and value [3], and recently the development of 3D printing.

This new area of business forces the entrepreneurs to rethink the sector's strategies. The SWOT analysis of strengths , weaknesses, threats and opportunities [11] applied to the graphic industry shows the references needed to guide, through new strategies, the Brazilian graphic entrepreneur.

STRONG POINTS

- Installed capacity adequate in quantity and technology, being compatible with the existent technology.

- County's political economical structure is stable and banking system is strong.

WEAK POINTS

- Technical knowledge of employees in the graphic industry is low. In 2009, 86% of graphic employees had a maximum education of complete High School [12].

- "Cost Brazil" is an additional cost for business owners, much higher than the other countries in emerging markets [13]
- There are few institutions of the area's technical education. In 2014, there is only one college that graduates graphic technicians.

THREATS

- Digital technology, especially on the promotional and editorial markets, that is, the substitution of graphic products by alternatives that dispose the use of paper.
- Increase in the Chinese importation in 2013. One fourth of the product importations in the graphic branch come from China [2].
- Ambient list views on the use of paper

OPPORTUNITIES

- Brazil has a large and expanding domestic market. Its importations represents less than 15% of the GDP, a percentage smaller than most other emerging markets [13].
- The increase in consumption directly affects the packaging market, that tends to be the less affected by technical threats suffered by the graphic industry.
- Digital impressions and technology that allows access to a new market not attained by printed products.
- There are clear signs that the global economic conditions are improving. As a consequence the graphic industry is planning to reinvest in the next few years.[14]
- The graphic industry ceases to focus on products to now focus on services. It is clear that there is a high demand for new solutions and new business models that better attend the clients' needs. [14]

The results verified by SWOT analysis on the Brazilian graphic industry's data and profile, is a strong indicator that the small enterprise that uses traditional resources, do not have the competence and structure to execute modern management strategies to face the threats posed by the current strategic environment.

Turner et al [15] had similar results in the analysis of Product Management Institution (PMI) tool for European micro and small enterprises. It was suggested that the development of a "micro-lite" version of PMI, easier and less bureaucratic for small projects, using informal management techniques. Therefore, the use of tools structured specifically for small enterprises, facilitating their strategic work, can be useful for the survival and prosperity of this type of business.

4 Discussions and Results

To verify if the use of similarity would be consistent applied on companies, an analysis was performed on Maslow's 16 citations from chapter 3 (Preface to Motivational Theory) of his book "Motivation and personality" [4], where the author presents a series of "propositions on motivation that should be incorporated in any realistic motivation theory", and searched for a text as coherent as the one presented, having

The object of the methodology as an enterprise rather than a human, and characterized the corresponding correlations, as presented on Chart 1.

Chart 1: Similarities between the application of Maslow's Theory for human beings and enterprises

Maslow Citations	Enterprise similarities
"the individual is an integrated, organized whole" ... "It means the whole individual is motivated rather than just parts of him". (INDIVIDUAL AS A WHOLE)	The company is an integrated organized whole. The analysis of the company's motivation should be applied to it as a whole and not in parts. HIGH SIMILARITY
"The particular desires that pass through our consciousness dozens of times a day are not in themselves so important as what they stand for, where they lead, what they ultimately mean upon deeper analysis." ... "We may then assert that sound motivation theory cannot possible afford to neglect the unconscious life." (ENDS AND MEANS)	The analysis of the company's activities must become focused on the people involved in the act, rather than on the act itself. The company's motivation analysis will not be consistent if the company's culture is neglected. MEDIUM SIMILARITY
"...the primordial and fundamental human desires do not differ as much as their daily conscientious desires" ... "Human beings are more similar that we initially thought." (DESIRE AND CULTURE)	Companies are more alike that they seem, if its primordial and fundamental needs are considered. HIGH SIMILARITY
"We will emphasize that is it uncommon and not common, that a conscientious act or desire has only one motivation,". (MULTIPLE MOTIVATIONS)	The company's actions do not occur due to isolated interests, but by a group of them. MEDIUM SIMILARITY
"A coherent motivational theory should assume a posture that the motivation is constant, endless and complex, and consider that it is na universal characteristic of practically all particular organisms states". (MOTIVATIONAL STATES)	The motivational aspects of a company can be manifested in various ways, by different people in different situations. It is not the isolated facts that create a general state of motivation for the company. MEDIUM SIMILARITY
Two facts: (1)the human being will not be satisfies, except in some moments of his journey; and (2) the desires seem to be organized in a hierarchy of prepotencies. (RELATIONSHIPS OF MOTIVATIONS)	Companies were born to grow and prosper. Independent of the situation, the company will always be trying to improve its performance and results. HIGH SIMILARITY
"We must give up once and for all the concern in producing lists in atomistic style, of needs and motivators " (LIST OF MOTIVATORS)	There is no specific formula to attain success in a company. HIGH SIMILARITY
"It is only the fundamental targets that remain constant throughout the flow that exerts a dynamic approach on	What is common in companies is the goals to be met in order to ob-

psychological theory”. (CLASSIFICATION OF MOTIVATIONAL LIFE)	tain success. MEDIUM SIMILARITY
“The study of motivation does not nullify or negate the study of situational determinants, but supplements them. Both have their place in a broader structure” (THE ENVIOROMENT)	The concept applies literally on the analysis of a company's motivation. HIGH SIMILARITY
“Any theory of motivation must take into account not only the fact that the body behaves in the ordinary way, as an integrated whole, but must also consider that sometimes this does not occur, particularly in difficult times” (INTEGRATION)	Strange behaviors towards the company's culture, particularly in difficult times, should be faced as acceptable variations on the management process. MEDIUM SIMILARITY
"Not all behaviors and reactions are motivated, at least not in na ordinary sense of search for satisfaction of needs, that is, the search of what one lacks and/or needs.. (UNMOTIVATED BEHAVIOR)	There are isolates actions. Not all that is decided by the company is 100% coherent with its culture and with the fulfillment of its needs. MEDIUM SIMILARITY
"In the whole, we search consciously for what is conceivably reachable. The attention given to this reach possibility factor is crucial for understanding the differences in motivation in between classes”. (POSSIBILITY OF REACH)	Companies will advance in their management within their possibilities, that vary with time. HIGH SIMILARITY
In regards to the ID, the ego controls the path access to mobility, but shifts between desire and action, the procrastinating factor of thought, during which one makes use of experience residues accumulated on the memory. (INFLUENCE OF REALITY)	The company's actions also suffer from external factors, in addition to cultural and motivational internal factors. MEDIUM SIMILARITY
"any theory that is worthy of attention should be able to deal with the elevated capacities of the strong and healthy human, as well as defensive maneuvers of handicapped spirits. (KNOWLEDGE OF HEALTHY MOTIVATION)	A management model should be developed to be applied in different companies from different branches and in different situations. HIGH SIMILARITY

Out of all 16 prepositions presented by Maslow in this text, only two (absent in chart 1) did not find similarities when applied on companies: "Hunger as a Paradigm" and "Motivation and Animal Info". All other 14 prepositions had similarities, seven being high, which means that the concept presented by Maslow, having as its center study humans and their motivation is perfectly applicable when one thinks on the company and its success as a new central focus.

5 Conclusions

The application of the similarity method showed a high connection between Maslow's Hierarchy of Needs concepts, having as a central object a company rather

than a human. It is believed that the use of this theory's concepts as a management model is adequate for small companies, for these concepts are easy to understand and have a high practical application that can be implemented in steps.

Furthermore, with basis on what was exposed, the development of a management model that is simple and practical and can be applied in steps was initialized, focusing on MSEs for testing on the Brazilian graphic industry. We hope to present this model for application in a next publication.

6 References

1. DIEESE, Work Catalogue on micro and small enterprises: 2010-2011. 4. Ed. /Brazilian Service of Support for Micro and Small Enterprises (Org.); Inter-union Department of Statistics and Social-Economical Studies [responsible for the elaboration of the research, texts charts and graphs.] – Brasília, DF; DIEESE, 2011
2. ABIGRAF – Numbers of the Brazilian Graphic Industry in 2012 – Brazilian Association of Graphic Industry – Social-economic Studies – DECON. 2013
3. INTERGRAF – European Graphic Industry: Facts and Numbers – Laetitia Reynaud – Intergraf, 2013
4. MASLOW, Abraham – Motivation and Personality – 1954 - http://www.crarj.org.br/site/leitura/textos_class/traduzidos/motivation%20and%20personality/publicacao/index.html – Access in march 24th, 2014.
5. ADIZES, Ichak – Life Cycle Corporations: how and why companies grow and die and what to do about it – 2nd edition – São Paulo – Pioneira, 1993
6. MOGGI, Jair – Live Management! The cell as an organization model – 1st. edition – São Paulo – Editora Gente – 2001
7. FERREIRA, André; DEMUTTI, Carolina M.; GIMENEZ, Paulo Eduardo O. - “Maslow's Theory of Needs: The influence of the educational level over the perception on the work environment” – XIII SemeAd – Administration Seminars – ISSN 2177-3866 – September de 2010
8. KOTLIAROV, Ivan – Mathematical Formalization of Theories of Motivation proposed by Maslow and Herzberg – Fractal: Revista de Psicologia, v.20 – n. 2, p. 341-346, Jul./Dez. 2008
9. SAEEDNIA, Yadolla; MD NOR, Mariani - Measuring Hierarchy of Basic Needs Among Adults – Procedia Social and Behavioral Sciences – World Conference on Psychology and Sociology – 2012
10. WEBB, Joseph W. – Renewing the Printing Industry: Strategies and Action Items for Success – Second Edition – Strategies for Mangement, Inc., and WhatTheyThink
11. PORTER, Michael E. – Competitive Strategy: Techniques for the analysis on industry and competition – 5ª. Ed. – Rio de Janeiro: Campus, 1991
12. ARAUJO Jr., José Pires de – The importance of the strategic view of internal resources of the company. – Revista Tecnologia Gráfica – Ed. 77, 2011.
13. HSM Management, no. 82 – year 14 volume 5, Dossiê BRIC – October 2010.
14. Drupa Global Trends, Messe Düsseldorf, Feb. 2014.
15. TURNER, Rodney; LEDWITH, Ann; KELLY, John - Project management in small to medium-sized enterprises: Matching processes to the nature of the firm - International Journal of Project Management 28 (2010) 744-755