

## THE DEVELOPMENT OF AN INCREMENTALLY EVOLVING MANAGEMENT MODEL FOR SMALL BRAZILIAN PRINTING COMPANIES BASED ON MASLOW'S THEORY OF THE HIERARCHY OF NEEDS

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### ABSTRACT

*Brazil's small businesses, particularly those in the printing and graphic communication industry, face management difficulties and are more vulnerable to external factors in the market. This paper aims to develop an incrementally evolving management model for these companies, based on an analysis of similarity to Maslow's Theory of the Hierarchy of Needs. In this analysis we first define the five stages of the management process, then we go into detail on each, defining the performance indicators, key processes, basic concepts, activities and the expected results for each stage, so as to put forward a proposal that can be tested in practice in the Brazilian printing and graphic communication market.*

**Keywords:** *Maslow, printing companies, small enterprises, management*

### 1. INTRODUCTION

Over 90% of Brazil's printing companies, which fall into the category of small enterprises, have management deficits. The development of simple, practical management tools will help make these companies more competitive in highly competitive markets.

#### *1.1 Small Enterprises (SEs)*

Small enterprises (SEs) play an important role in Brazil's economy. According to the Ministry of Labor's Annual Report of Social Information (*Relação Anual de Informações Sociais—RAIS*), and administrative registry, Brazil has some 6.3 million small enterprises that account for 16.2 million formal, non-agricultural, jobs. (SEBRAE & DIEESE, 2011)

In 2012, SEs accounted for 99% of establishments, 52% of formal jobs in privately-owned non-agricultural establishments, and 40% of the volume of wages paid to workers in these establishments. These figures are accompanied by a growth in the number of jobs where workers are formally registered in the Ministry of Labor with working papers, and in the average monthly wages earned by workers in these establishments. (SEBRAE & DIEESE, 2011)

However, many of these companies fail in the first years of existence. A study by SEBRAE (Brazil's Service to Support Sole Proprietorships and Small Enterprises) in the state of São Paulo, running data for 2008, found that 27% of companies registered in the State's Registry of Commerce (*Junta Comercial de São Paulo—JUCESP*) go out of business before completing one year. As shown in Figure 1, these numbers rise to 64% of companies closing before they complete 6 years of activity. Even those companies assisted by SEBRAE-SP, in other words those whose entrepreneurs stand out from the crowd, display figures that, while much improved over the rest, are still far from satisfactory. In the state of São Paulo, this premature closure of companies before one year of existence costs R\$ 16 billion in personal savings and loss of earnings, and leads to the extinction of 267,000 jobs. (SEBRAE, 2008)

#### *1.2 The Brazilian Printing Industry*

Brazil's printing industry is well-equipped and technologically up-to-date. Despite a fall in investment over the last three years (2011 to 2013), average investments for 2007 to 2013 came to approximately US\$ 1.3 billion, showing that the industry has constantly updated its machinery base, as shown in Figure 2 (ABIGRAF, 2014).

Brazil's printing industry is coping with countless pressures: technological pressures such as those caused by digital and virtual competitors like *e-books*, and the access to information on the Internet, as well as electronic tax invoices and bank bills ("*boletos*"); there are also market pressures stemming from overseas competition, above all from China.

The result of this pressure can be seen reflected in the industry's figures. A 2013 survey by the Economic Studies Department of the Brazilian Printing Industry Association (*Associação Brasileira da Indústria Gráfica—ABIGRAF*), shown in Table 1, found that Brazil's printing industry fell more markedly than the average for Brazilian industry as a whole. Output, according to the official statistics office, the Brazilian Institute of National Statistics and Geography (*Instituto Brasileiro de Geografia e Estatística—IBGE*) fell 6.7% as opposed to a slight rise in manufacturing industry: 1.5% (ABIGRAF, 2014).

With regard to employment, the printing industry ended 2013 with 20,600 establishments, employing 219,000 people, having lost 5,600 jobs during the year. Analysis of the industry's trade balance shows that exports came to US\$ 279.1 million while imports came to US\$ 548.64 million, generating a negative balance of US\$ 269.54 million. Data from the last four years are shown in Table 2 (ABIGRAF, 2014).

These data indicate that good management is essential for the survival of the printing industry because macro-economic conditions for the sector are unfavorable. Overall, however, the printing industry, which is mainly made up of small enterprises, is characterized by informal management practices that do not focus on results, and that lack training and capacity-building.

The present author has followed the Brazilian market as a consultant: there are only rare cases of success, which have much more to do with good-quality management than favorable market or strategic conditions. These cases of success are companies that value knowledge management and that have strong, influential leaders.

### 1.3 Small Enterprise Management

The high mortality rate among SEs demonstrates how necessary it is to improve the management of these companies; this topic has drawn the attention of countless studies. Turner, Ledwith and Kelly examined Project Management in Small to Medium-Sized Enterprises (Turner, Ledwith, & Kelly, 2010); Malhotra and Temproni discussed critical issues in introducing an ERP (Enterprise Resource Planning) system in small companies (Malhotra & Temproni, 2010); Jaworski analyzed the use of financial information in small business management (Jaworski, 2011); Kober, Subraamanniam and Watson studied the impact of adopting total quality management in small and medium enterprises (Kober, Subraamanniam, & Watson, 2012); Edvardsson and Durst analyzed the benefits of knowledge management in small and medium-sized enterprises (Edvardsson & Durst, 2013) and Kroon, Van de Voorde and Timmers examined high performance work practices in small firms (Kroon, Voorde, & Timmers, 2013).

However, it should be stressed that the analysis of studies and tools for measuring and managing performance shows completely different results for small versus large companies. Literature on the subject for small companies is superficial, and several traditional models that have been put forward do not work when introduced, whereas there is a vast, detailed literature on the issue of large companies. This proves there is a lack of models that will take into consideration the specificities, characteristics and needs of SEs (Taticchi, Tonelli, & Cagnazzo, 2010).

SEs therefore lack management, especially in their early years. Given the actual profile of such a company, the organizational structure is limited, and the decision-making process is very dynamic: there is direct, informal communication between the owner and his/her employees, while these workers are mostly encouraged to carry out multiple roles, despite often being totally unprepared to do so (Koh & Simpson, 2007).

The development of a management process, using simple tools, and evolving *pari passu* with the company, meeting its needs—which change over the company's lifetime—is an option to increase the chances of success of these enterprises, through streamlined, straightforward, and above all effective management.

Botana and Costa Neto examined whether it was feasible to develop such a model for small enterprises based on the similarity between companies and human beings, taking as their basis Maslow's Theory of the Hierarchy of Needs (Botana & Neto, 2014). They found it feasible, and perceived the possibility of applying it to SEs, paving the way for continuity of this process. The objective of this study is therefore to structure the incrementally evolving management model based on Maslow's Theory of the Hierarchy of Needs, using as their methodology the analysis of similarity to Maslow's texts and checking their applicability to small enterprises from Brazil's printing industry.

## 2. METHODOLOGY

### 2.1 *Defining the stages of evolving management*

The first step of this study is to analyze the similarity between human beings and companies through a reading of the texts of Abraham Maslow in his “Motivation and Personality” (MASLOW, 1954). We have constructed a table of similarities between the author’s text and its application to companies, taking as our starting-point chapter 4 of “A Theory of Human Motivation”, where the characteristics of each of the stages in the hierarchy of human needs are described in detail. This analysis will enable definition of similar stages to those Maslow describes for human beings to be applied in the case of companies.

### 2.2 *Developing Performance Indicators, Key Processes, Goals and Actions for each stage of evolving management*

We shall define the stages of the incrementally evolving management model, and treat each stage as a process, which may be defined as a structured set of sequential activities that are interconnected logically among themselves, in order to meet or exceed the needs and expectations of internal and external clients or audiences (de Oliveira, 2009).

For each of these stages the following aspects are defined: the inputs (which are the outputs of the previous stage), key processes, performance indicators, the goals, the activities to be performed, which are the critical success factors of the process, and the outputs that enable an advance to the subsequent stage of the evolving management. Finally we discuss the feasibility of practical application of the model to printing industry SEs, with their characteristics and specificities.

## 3. THEORETICAL UNDERPINNING

### 3.1 *Maslow's Theory of the Hierarchy of Needs*

Abraham Harold Maslow, an American psychologist (April 1, 1908 - June 8, 1970), became world-renowned for developing his Theory of the Hierarchy of Human Needs, also known as Maslow's Theory. Having begun by studying the behavior of primates, he later became interested in human motivation, which culminated in his theory, presented in detail in his *Motivation and Personality* (Maslow, 1954).

In the 1960s, having read certain management authors such as Peter Drucker, Maslow correlated his theories of motivation and personality to aspects of management. In 1965 he published “Eupsychian Management”, a book that was republished in 1998 under the title “Maslow on Management”, and his theory is widely cited in corporate management studies (Maslow, Stephens, Heil, & Bennis, 1998). Yoshio Kondo takes Maslow's Theory as his basis for a practical application of motivational work in Japanese companies (Kondo, 1991); Sharma and Jain include Maslow in their references for management and leadership models (Sharma & Jain, 2013) and Kwok cites Maslow alongside Elton Mayo, Mary Parker Follett and Chester Barnard among behavioral theories of management (Kwok, 2014).

Maslow's Theory is well-known in Brazil, both in academic circles where it is as a benchmark for beginning any discussion involving human motivation, and in the industrial context, where companies seek practical applications of it in order to improve labor relations with their employees. (Robbins, 2005)

#### 3.1.1 Levels of Need in Maslow's Theory

Maslow's Theory categorizes human needs into five levels; the theory posits that each need must be fully met before the next arises. The five levels of satisfaction of human needs follow a hierarchy.

According to Maslow these are the levels of human needs (following the established hierarchy):

- Basic or Physiological Needs (also called Survival Level Needs in some interpretations): These include items that guarantee the individual's survival and the preservation of the species. Needs included at this level are food, shelter, rest and reproduction.
- Safety and Security Needs: stabilizing or keeping what one has. Seeking protection against threat and deprivation. A struggle against danger. In this category we find issues of health and well-being, aspects of personal physical safety and financial security, and an effort to obtain protection against the unforeseen.
- Belongingness and Love Needs (or interpersonal needs): these have to do with humans' need to “belong”. They include aspects of emotional relationships. Intimacy, friendship, all kinds of social interactions, the making and maintenance of family ties and participation in organized groups such as clubs, trades unions, sports supporters' groups, musical and dance groups, and so on. At this level, the effects of deprivation, above all in modern times and in urban centers (depression, solitude and anxiety) are one important aspect.

- The Esteem Needs: After “belonging” to a group, the next step is for a person to “stand out” from the group. This set of needs involves self-confidence, the need for social approval and recognition, respect, prestige and consideration by the group, and the feeling of independence and autonomy.
- The need for self-actualization: the ultimate level of human motivation. This means achieving a person's utmost potential: doing what one wants, what one likes and what one knows how, exploiting all one's possibilities and constantly developing as a person.

The needs in Maslow's Theory of the Hierarchy of Human Needs are usually presented in the form of a pyramid, known as Maslow's Pyramid. However, it should be pointed out that Maslow himself never used this illustration to explain his theory; this way of presenting the levels, while highly didactic, should never be ascribed to Maslow (Serrano, 2014).

At the base of the pyramid are the basic needs, while self-actualization is at the apex, forming a series of steps or a “staircase” up the pyramid, as shown in Figure 3.

### 3.2 Business Plans

A good idea, a stand-out product or an innovative process are essential steps in the development of a new enterprise, but not sufficient in themselves. They need to be part of the structure of a business model in order to build on them so as to achieve a structured, long-lasting and profitable company.

One way to establish a relationship between a good idea and a prosperous company is to prepare a Business Plan or Model. Dolabela defines a Business Plan as a way of thinking about the company's future: where it is going, how to steer that course, and how to reduce uncertainty and risk. The Business Plan is not the company, but describing it so as to include opportunities for growth, its strategies and the pursuit of resource management, will make the company feasible. (Dolabela, 2008)

The business plan is also seen as a tool to describe and evaluate the business logic in start-up companies and in existing organizations (Veit et al., 2014); it is also defined as an abstract representation of an organization in the present and future, showing how it is structured and the goods and services necessary for it to attain its strategic goals (Al-Debei & Avison, 2010).

The Business Plan is often thought of as the half-way point between companies' strategies and their business processes, as shown in Figure 4. (Al-Debei & Avison, 2010).

The Business Plan is a tool that leads the entrepreneur to immerse him- or herself in his or her business, guiding his or her decisions. In the present study the role of the Business Plan is to validate the incrementally evolving management model for small companies, paving the way for the analysis of similarity to Maslow's theory.

### 3.3 Process Mapping

A process is a structured set of sequential activities bearing some logical relationship among themselves, carried out in order to meet or exceed the needs and expectations of internal and external audiences (de Oliveira, 2009).

Each process may be understood as a single cell that should add value to the product/service, turning its inputs (usually raw materials, information and energy) into outputs (products, services and information) within specifications that meet customers' expectations. A set of sub-processes makes up a larger process that meets the needs of the company's external customers (de Oliveira, 2009).

Process Management is a basic tool to improve company's management. For example, Brazil's National Quality Foundation (*Fundação Nacional da Qualidade*), in its Excellence in Management Model (*Modelo de Excelência da Gestão—MEG*), adopts 'Being Guided by Processes and Information' as a 'Fundamental of Excellence in Management' for world-class companies. (Fundação Nacional da Qualidade, 2009).

ISO 9000 also adopts the management by processes model to structure the set of standards and procedures that lead to awarding of ISO 9001 certification, as shown in Figure 5.

To be correctly described, the inputs and outputs of each process must be well-defined, as well as their goals and key activities: this is in order to guide a clear management of each process individually and to ensure consistency between the management of the process individually and the management and results of the overall process of catering to the external client.

In this project, every stage of the evolving management will be treated as a process, and the outputs of each stage will be the inputs for the subsequent stage in the process.

#### 4. RESULTS AND DISCUSSIONS

SEs are intrinsically characterized by a scarcity of financial resources and a tendency to simplify their management process (Koh & Simpson, 2007). All business plans to be prepared for an SE need to take these characteristics into consideration. The present incrementally evolving management model lends itself to this context in that it leads the manager to divide the management process into stages, prioritizing actions in accordance with the strategic moment of the company. In this model the manager prioritizes the application of the scanty financial resources and simplifies the management process because the focus will be on one process only at a time.

##### 4.1 Similarity Analysis

In order to apply our similarity analysis we have selected excerpts from Chapter 4, "A Theory of Human Motivation", from Maslow's book "Motivation and Personality", where he presents the structure of the steps in the hierarchy of needs, and we have written a text that is its complement, about companies rather than human beings, characterizing the correlations we have found. See below.

Similarity of quotations from Maslow when applied to a company:

Quotation from Maslow	Similarity - Company
<b>PHYSIOLOGICAL NEEDS</b>	
"... in the human being who is missing everything in life in an extreme fashion, it is most likely that the major motivation would be the physiological needs rather than any others."	Physiological needs—if these are not met the individual will die. As is "bread" to the man, so is "money" to the company, expressed by Cash.
"A person who is lacking food, safety, love and esteem would most probably hunger for food more strongly than for anything else."	When a company has problems with technology, productivity, meeting needs, and cash, it will probably focus on CASH FLOW.
"Another peculiar characteristic of the human organism when it is dominated by a certain need is that the whole philosophy of the future tends also to change... Freedom, love, community feeling, respect, philosophy, may all be waved aside as fripperies that are useless, since they fail to fill the stomach. Such a man may fairly be said to live by bread alone."	At moments of Cash crisis, commercial and industrial issues tend to be pushed into the background if they affect a company's cash generation. Such a company may fairly be said to live by bread (i.e. cash) alone."
"But what happens to man's desires when there is plenty of bread and when his belly is chronically filled?"	When its cash position is balanced (or solved), its other problems arise once more (industrial and commercial issues).
"...gratification becomes as important a concept as deprivation in motivation theory, for it releases the organism from the domination of the relatively more physiological needs, permitting thereby the emergence of other more social goals."	The company is no longer obsessed with its own survival and can pursue a better level of organization in order to improve its results.
<b>THE SAFETY NEEDS</b>	
- Security	Security, Stability and Protection -> PROFIT (Operating Profit)
- Stability	
- Dependency	
- Protection	
- Freedom from Fear, from Anxiety and Chaos	Freedom from Fear and Chaos, Structure, Order, Law, Limits -> Productivity and Cost Control.
- Need for Structure	
- Order	
- Law	
- Limits	

“All that has been said to the physiological needs is equally true, although in less degree, of these desires. The organism may equally well be wholly dominated by them. They may serve as the almost exclusive organizers of behavior, recruiting all the capacities of the organism in their service, and we may then fairly describe the whole organism as a safety-seeking mechanism.”

“We may generalize and say that the average child and, less obviously, the average adult in our society generally prefers a safe, orderly, predictable, lawful, organized world, which he can count on and in which unexpected, unmanageable, chaotic, or other dangerous things do not happen, and in which, in any case, he has powerful parents or protectors who should shield him from harm.”

“Just as a sated man no longer feels hungry, a safe man no longer feels endangered.”

“Other broader aspects of the attempts to seek safety and stability in the world are seen in the very common preference for familiar rather than unfamiliar things.”

“Otherwise the need for safety is seen as an active and dominant mobilizer of the organism's resources only in real emergencies.”

The company needs the security of profitable operations, stemming from a productive factory and controlled administration.

- Overheads under control
- Suitable productivity
- Guaranteed quality.

All of these are internal aspects and therefore under control (i.e. secured).

Management is controlled and profitable.  
Leaders are dependable  
The factory is “in hand”. Control of the production chain.

A profitable company provides the necessary support for the company's prosperity.

Profitable and controlled management provides the company with predictability. We tend to have the entire process under our control.

At bad times the shareholders' equity installed and the operation is ready to resume as quickly as possible.

#### THE BELONGINGNESS AND LOVE NEEDS (SOCIABILITY)

“If both the physiological and safety needs are fairly well gratified, there will emerge the love and affection and belongingness needs, and the whole cycle already described will repeat itself.”

“Now the person will feel keenly, as never before, the absence of friends, or a sweetheart, or a wife, or children. He will hunger for affectionate relations with people in general, namely, for a place in his group or family, and he will strive with great intensity to achieve this goal.”

“... the deep importance of the neighborhood, of one's territory, of one's clan, of one's own “kind”, one's class, one's gang, one's familiar working colleagues.”

When the cash-flow and profit needs are satisfied it is time to focus on relations that will enable these variables to remain sound for a long time.

This is when the company's Commercial Department will try to be more selective, strengthening ties with customers that will allow win-win relations, and separating out those that do not, thus setting up a sound CUSTOMER BASE

The overarching objective at this moment is loyalty-building, where partnership goes beyond mere commercial limits

#### THE ESTEEM NEEDS

“All people in our society have a need or desire for a stable, firmly based, usually high evaluation of themselves, for self-respect, or self-esteem, and for the esteem of others.”

At this stage the company wants a certain degree of prominence in the industry in which it operates. It wants to be perceived and seen as a “top” company, in which TECHNOLOGY plays a major role in the Company's decision-making

Two subsidiary sets:

1)

- Desire for strength
- for achievement
- for adequacy
- for competence
- for mastery
- for confidence in the face of the world
- for independence
- for freedom

2)

- Desire for reputation
- for prestige
- for status
- for fame and glory
- for dominance
- for recognition
- for attention
- for importance
- for dignity
- for appreciation

“Satisfaction of the self-esteem need leads to feelings of self-confidence, worth, strength, capability, and adequacy, of being useful and necessary in the world.”

“But thwarting of these needs produces feelings of inferiority, of weakness, and of helplessness.”

“The most stable and therefore most healthy self-esteem is based on *deserved* respect from others rather than on external fame or celebrity and unwarranted adulation.”

Two perspectives

1)

- Self-reliance
- Acknowledged competence
- Mastery of Technology

2)

- Outstanding position in corporate circles
- Award-winning
- A market benchmark

In the corporate world, and above all in the industrial world, a modern installed capacity is a weighty element in the self-esteem issue, associated with feeling “useful and necessary in the world.”

Likewise, not being “*up to date*” may mean being “inferior and useless.”

In the corporate world, self-esteem is not always the most visible element!

#### THE NEED FOR SELF-ACTUALIZATION

“What a man *can* be, he *must* be.”

“Self-actualization refers to man's desire for self-fulfillment, namely, to the tendency for him to become actualized in what he is potentially.”

“At this level, individual differences are greatest.”

A company must accomplish its mission!

Self-actualization is when the company fulfills its vocation sustainably.

In this aspect, companies may have completely differing goals. Strategic INNOVATION—whether technological, commercial or in its processes—starts to loom large in the entrepreneur's view

Based on the above similarities, the most popular didactic presentation of the Theory of the Hierarchy of Needs, also known as Maslow's Pyramid, could be redrawn to contain the phases of the incrementally evolving company management model, as we do in Figure 6

Each of these stages of the Incrementally Evolving Management Model will be addressed as a process, and therefore will show goals, the steps necessary to attain them, and a performance indicator. The key process and the basic entrepreneurial concept of each of these stages will also be added.

#### 4.2 Detailed description of each Stage of the Management Model

##### 4.2.1 Stage 1 – Cash flow / Survival

The initial stage of Maslow's Hierarchy is meeting basic physiological needs to ensure the survival of the individual and the preservation of the species. From a corporate point of view, the factor that threatens the survival of the business is Cash Flow.

In order to survive, a company must balance its payments and revenues. This balance must come from the normal operating routine of the company, where revenues come from sales, while the outgoings are the payment of salaries, purchases and other expenditures necessary for sustaining the operation. If the company is forced to borrow external resources in non-strategic fashion, the first signs appear that the cash flow structure may be at risk.

The performance indicator at this stage is cash flow, and the key process is the Financial process. This is one of companies' most basic controls, and a company's primary attention must go toward maintaining positive present and future cash flows as working capital. It is essential to predict future cash problems because this enables negotiations with suppliers, banks and customers in more favorable conditions for the company than if they were addressed as an emergency.

The key concept at this stage is austerity in dealing with financial issues. The company's financial section abandons its more passive role as complying with assumed commitments, in order to play a more decisional role in the financial processes.

This is certainly not a moment of tranquility for companies, and their goals will always aim at the business's financial autonomy by setting up a cash flow that is independent of outside resources.

Typical actions at this stage are a stricter control of expenditure; the suspension of investments except in the case of emergencies or virtually immediate profits; possible renegotiation of debts and restructuring of commercial processes in order to achieve a medium-term balance between payments and revenues.

This stage is deemed past when the cash flow is positive and increasing.

Chart 1 shows a summary of activities at this stage.

##### 4.2.2 Stage 2 – Profit / Security

After physiological needs have been met in Maslow's Theory, the next stage to be overcome is Security. Security needs have to do with stabilizing or keeping what one has. Seeking protection against threats and deprivation. For companies, stable profits play the role of providing the business with more security.

A company will be secure and healthy if it can set up and maintain an organizational, commercial and industrial structure that can produce goods and services at costs lower than what its clients are prepared to pay for them.

In the previous stage, when trying to improve cash flow, some of the actions undertaken by the company also helped improve profitability. After all, this is a gradually evolving process and actions taken at one stage ought not to jeopardize later stages. What changes is the focus. Without losing what was achieved in the preceding stage, the next step is to analyze the corporate structure to verify and ensure its ability to generate profit.

The performance indicator at this stage is Profit, and in order to evaluate it accurately the company must have a well-constructed system for examining incomings and outgoings, above all for studying its own overheads, and a method for checking results in order periodically to verify whether it is profitable, and carry out actions to improve the situation when necessary.

The key process at this stage is Production, since the way production is structured and operates will define the company's cost basis, while productivity defines the effectiveness of revenues. Production is where products/services are executed and where most financial resources are consumed. In order to understand the origin of a company's profit or loss, therefore, the Production processes must be controlled and audited.

The key concept at this stage is Productivity and the company's efforts should focus on tasks that optimize the efficiency of the industrial operation. Actions focusing on improving machinery set-ups, increasing operating speeds, reducing downtime and raw materials losses are the basis of the company's work at this moment. The



company should also use a systemic methodology to address Production errors, identifying defective points in the process and solving them effectively.

In HR the focus should be on leaders. Ensuring a good team of leaders in the production areas is a critical success factor in this stage. The technical capacity-building and the management of the current leaders is assessed; if problems are found in professional posture, then possibilities of training in techniques, in management, in culture-assimilation are evaluated; and if improvements are found unlikely, replacement of the leaders is considered.

This stage is deemed overcome when the company's profitability is positive and consistent.

Chart 2 shows a summary of activities at this stage.

#### 4.2.3 Stage 3 – Client base / Sociability

The next stage in Maslow's Theory is meeting affective needs, i.e. human beings' need for "belongingness." They include aspects of emotional relationships. This belongingness is clearly reflected in the case of a company in its need to set up and maintain a sound customer base.

This customer base is what will provide an idea of continuity in the cash flow results and profits of the company, which must be able to recognize and meet customers' needs, and possess the efficiency to be able to do so at a suitable price, within a reasonable time frame and with appropriate quality. The more sound, the larger and the more loyal this customer base is, the stronger will be the guarantee that the results achieved will probably continue or improve.

The goal at this stage will be more than the usual sales process. The goal is to achieve a strong and lasting commercial relationship which will provide the company with the stability it needs in order to "belong" to the market.

The performance indicator at this stage is Sales, and the pursuit of results involves improvements in the volume and quality of sales made. Two aspects are discussed as important concepts at this stage: one is Market Share, the analysis of the slice of the market in the company's power, which is suitable for end-user-type products, for commodities, and for more restricted markets. The other option is what Philip Kotler defined in "Defining Marketing for the 21st Century" as Pocket Share, the share of purchases in its area that target customers are directing to any given company. The company needs to monitor the individual sales to these clients, in order clearly to prepare the client's profile and understand and analyze the chances of initiating sound relationships with each (Kotler, 2000).

The key process in this stage is the Commercial process, focusing on enhancing the quality of the company's customer portfolio, increasing the participation of clients with whom it has stable and sound relations, by carrying out long-term contracts. Steps to achieve these goals involve restructuring the company's commercial policies and retraining its Sales team, because this new focus will change the basic concepts of companies' commercial processes.

A critical factor in the success of this stage is good support by the commercial staff. The system for sending Estimates must be correctly structured and the information databases must always be accurate and kept up-to-date. Personnel working in these areas must be technically competent and also require good notions of customer service because they will be dealing directly with clients; Post-Sales will take upon itself the responsibility for serving clients after the order has been made, thus releasing sales staff to carry out prospecting and sales.

This stage is deemed completed when the company has a customer profile in which the major share is made up of clients with stable longstanding relations.

Chart 3 presents the summary of the Stage.

#### 4.2.4 Stage 4 – Technology / Self-esteem

The fourth Stage in Maslow's Theory is Esteem, the pursuit of differentiation. Respect, Prestige, Independence and Autonomy are needs that, when met, make people feel they stand out within their group. This makes them feel comfortable, even powerful.

These needs apply absolutely to companies, and in business the concept of the Competitive Advantage is widely used to show that the company is able to operate in a unique, special way; in industry, competitive advantages are

usually linked to Technology, which is the knowledge base used by companies to create new products/services for their clients or to achieve performance above the normal market standard.

The performance indicator at this stage is Operational Efficiency, the relationship between operating costs and the results obtained the operation.

Improvement in Operational Efficiency entails a strategy involving all the areas of the company. But in this stage what gives leverage is the review of the strategic focus on creating or extending the company's competitive advantages, where technology plays a fundamental role, in that the financial, productive and commercial processes are now mature, having been addressed in the previous stages.

The key process in this stage is Engineering. Production Engineering Studies are applicable in the sub-areas in this stage: Product, Processes, Quality, Logistics, Organization and Sustainability, leading the company to reinvent itself technologically, moving to higher levels that would have been impossible to attain merely by continuous improvements of the existing processes. In the specific case of the printing industry, some issues increase the importance of this topic. The world of communications has undergone major change. The Internet has revolutionized the way people and companies communicate with each other and how they obtain information and knowledge. This has struck at the heart of the printing industry, which needs to rethink its strategy in this new environment.

The result of these studies should be a review of the company's industrial structure, an analysis of future trends and a consequent redirecting of its investments, which should be compatible with the company's financial capacity, since poor decisions at this stage could be critical and force the company several stages backwards in its management process.

Successful implementation of these engineering analyses will lead to a cost reduction per piece produced, and therefore an increase in the operating profitability, closing the present stage

Chart 4 shows a summary of activities at this stage.

#### 4.2.5 Stage 5 – Innovation / Self-realization

The last stage in Maslow's Theory is self-actualization, when one does what one wants to do, likes to do, and knows how to do, exploiting all one's capacities and practicing self-actualization continuously. This is reflected in a company's vocation.

Having moved past all the previous stages the company is now in a privileged position. This is the point at which the company may concentrate only on itself and think not only of its profits but of its vocation as well, as expressed through its mission, and dedicate itself entirely to achieving this. The best way for a company to do this is through Innovations that will make a difference to its customers' lives. This is Self-Actualization for companies.

At this stage there is no specific performance indicator. What one expects is that the company will be able to maintain the performance in all the indicators established at earlier stages, and still manage to innovate and fulfill its calling.

Neither is there any outstanding key process. At this stage the company operates correctly and harmoniously. What stands out is the collectivity of the company rather than any specific area. The goal can be summarized as Innovating with Results. What was achieved at earlier stages must be maintained. Possibilities for innovation arise as new possibilities, new markets or even new business.

Innovation involves a more direct relationship with customers' projects. Participating more closely in their lives and helping them create their future. When it understands clients' projects, the company will be able to help make them happen. And the company will know when to act in accordance with its vocation.

Actions at this stage can be summarized in a single point: Project Development. The company will seek those of clients' projects that fully exercise its vocation and to achieve them it will gear its best in human, technological and financial efforts. Chart 5 shows a summary of activities at this stage.

#### 4.3 Application of the Model to Small Businesses

The management model is applicable to any kind of company, but the focus of the present study is application to small businesses from the printing industry, which are usually family-owned and managed, and operate in a local context.

Because the process gradually evolves and takes place by stages, it fits perfectly into the PDCA (Plan-Do-Check-Act) cycle, where the completion of each stage of the evolving management process corresponds to a complete turn of the PDCA circle.

However, before starting the process it is important to check what stage the company is at so that the PDCA cycle may begin to be applied from that point onwards.

The flow chart given in Figure 7 shows the verification algorithm to be followed from the initial stage of the management model. Note that even when the goals of a stage are being achieved, the key processes and the main concept must also be checked to see whether they are being applied correctly, in order to avoid mis-assessment in cases where the results spring from external factors unrelated to management. Where this happens, possible inconsistencies must be investigated and deviations from the management process must be corrected in order to ensure the maintenance of results even in less favorable external situations.

After defining what stage the company being analyzed is currently at, apply the PDCA cycle to the process:

#### Plan

- Check the Performance Indicator, which must be technically correct and consistent, with accessible up-to-date data.
- Top management will establish goals for the Performance Indicator: the goals must be communicated to everyone involved in the process.
- Check the key process structure in order to make sure that management, the organizational structure, human resources and existing procedures are suitable for introducing the action plans.

#### Do

- Participatory preparation of the Action Plan to achieve the goals set by the Top Management, using a Problem Solving and Analysis Methodology and quality tools.
- If the team preparing action plans is not suitably trained to carry them out, specific training must be given in these activities.

#### Check

- Analyze the Performance Indicator to check whether the actions taken have been effective and to identify critical factors involved in the actual result obtained.

#### Act

- If the goals have been achieved coherently and consistently, the company is ready to move on to the next stage;
- If the goals have not been achieved, the plan must be reviewed, and new activities and training actions put in place, and the cycle must be restarted until the goals are achieved.

### *4.3 Some changes to the implementation process of the model*

The practical application of the management model must, in order to ensure effective results, take certain aspects into consideration.

#### 4.3.1 Overlapping stages

In practical terms, the stages must not be considered as separate, isolated elements. The following stage does not necessarily begin when the preceding stage has been completed, nor is it very clear where the transition point is; thus stages may coexist for a period. Everything should be seen as, and analyzed as, one large process.

For this reason a company at a given stage may take decisions concerning later stages. The essential thing is to keep focus on, and prioritize, issues that directly involve the variables that are relevant to the current stage.

Figure 8 shows a more realistic representation of the pyramid of evolving management, with irregular shaping of the stages.

#### 4.3.2 Forwards and Backwards Steps

Because the model is an incrementally evolving one, it takes as a premiss that companies share the goal of improving results, and take steps in order to do so. However, in practice, there may be forward steps and backward steps that are the result of the quality of planning and execution of actions.

Certain aspects may force the process backwards:

- Poorly planned or poorly executed actions affect the earlier stages, leading the company to take several steps backwards in order to move forward again in its evolution.

- Actions from the early stages that are abandoned when the company is in the later stages, such as a Company that is at a stage where it is focusing on Technology, but fails to maintain attention on its cash flow and invests rashly in novelties. Depending on the amounts involved, the company may even have to go back to the first stage.

#### 4.3.3 The role of leadership

The leader is an opinion leader, and his or her performance in this process is a critical success factor. The leader must be aware of the stage at which the company presently stands and of what must be done in order to improve. His or her actions and messages to the team will be the real drivers of change.

Edgard Schein writes that one of the most obvious ways of examining a company's culture is “what the leader demands” (Schein, 2009). Employees react positively to these demands, because people normally like to stand out and be noticed by their workplace leaders. Therefore if the leader explains, teaches and demands the items in the model, this will increase the likelihood of results being achieved.

The leader's major role is to be an educator: within the process of improving a company, this task is critical.

#### 4.3.4 It is the company that will determine the final stage

The process of evolution of management, when applied in practice, takes on the features of the company. There are many companies that may not intend to grow so much that they become totally innovative companies or high-technology companies. That choice falls to the company itself. It is part of its strategy.

It is therefore the company itself that will determine the end-point of this process. When it feels comfortable with the strategic position it occupies, it may decide not to continue any further. It may simply wish to maintain the position it has achieved, possibly in order not to run any risks.

If this is the case, the only concern that might exist is whether it has a strategy to maintain the position achieved, in order not to slip backwards.

## 5. CONCLUSIONS

Brazil's small businesses suffer from management deficiencies brought about by their own structures and the qualifications of their managers, which shows a gap that can be bridged by a management model that is simple and practical enough to be understood by many managers and that will provide sustainable results for the companies.

Examining the situation in terms of its similarity to Maslow's Theory of the Hierarchy of Needs led us to construct an incrementally evolving management model that allows small companies to focus their strategy on specific points, which, having yielded convincing results, pave the way towards new objectives, leading the company to grow in a healthy and consistent fashion.

Projects of this type tend to be long-lasting insofar as they act upon all the vital aspects of the organization, changing procedures and cultures, and requiring effective results so that stages are overcome.

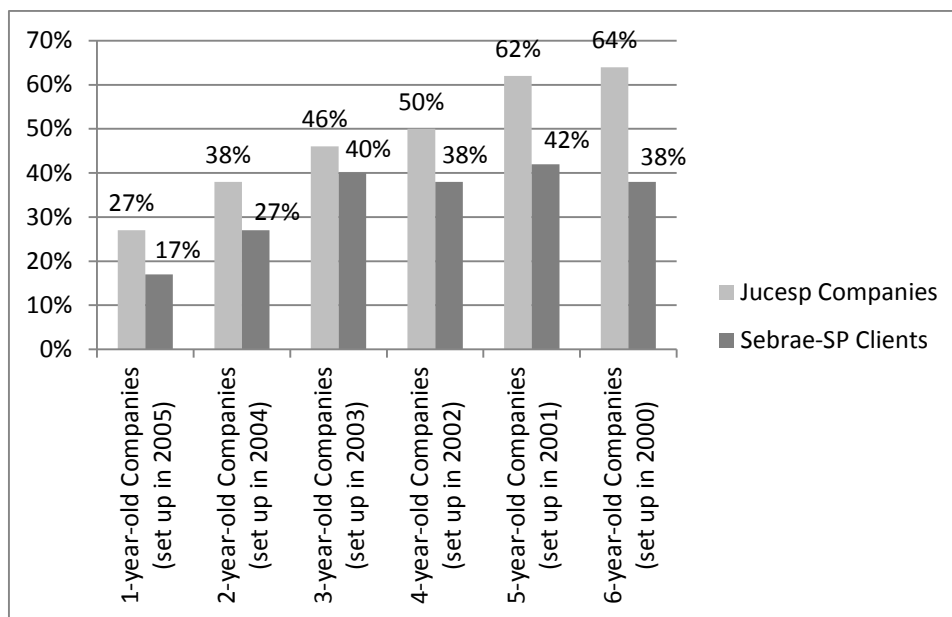
The next step will be the practical application in small Brazilian printing companies in order to verify the results obtained and ratify the model as an effective management instrument for this type of company.

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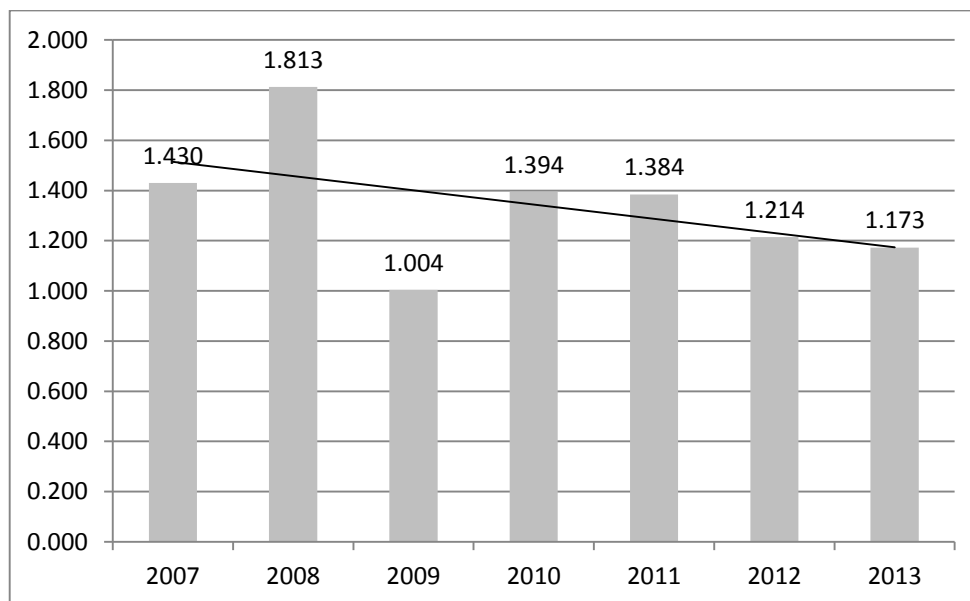
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**Figure 1:** Comparison between failure rates of companies registered with JUCESP and companies that clients of SEBRAE-SP. Source: SEBRAE-SP Small Business Observatory



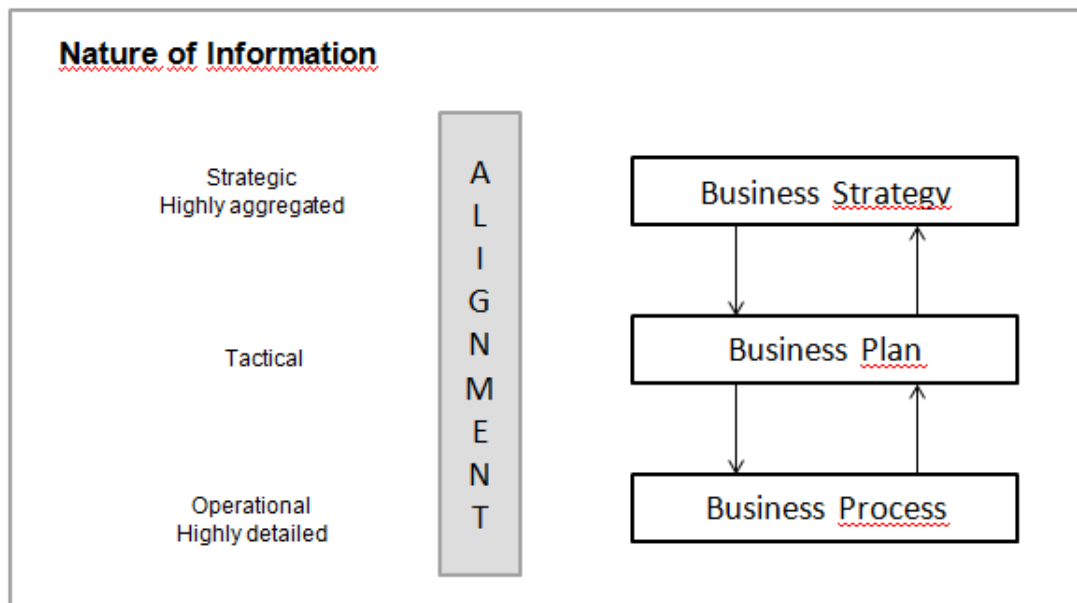
**Figure 2:** Investments in the Brazilian Printing Industry (US\$ billions). Source: MDIC – Ministério do Desenvolvimento, Indústria e Comércio (*Ministry of Development, Industry and Commerce*). Prepared by Decon/Abigraf



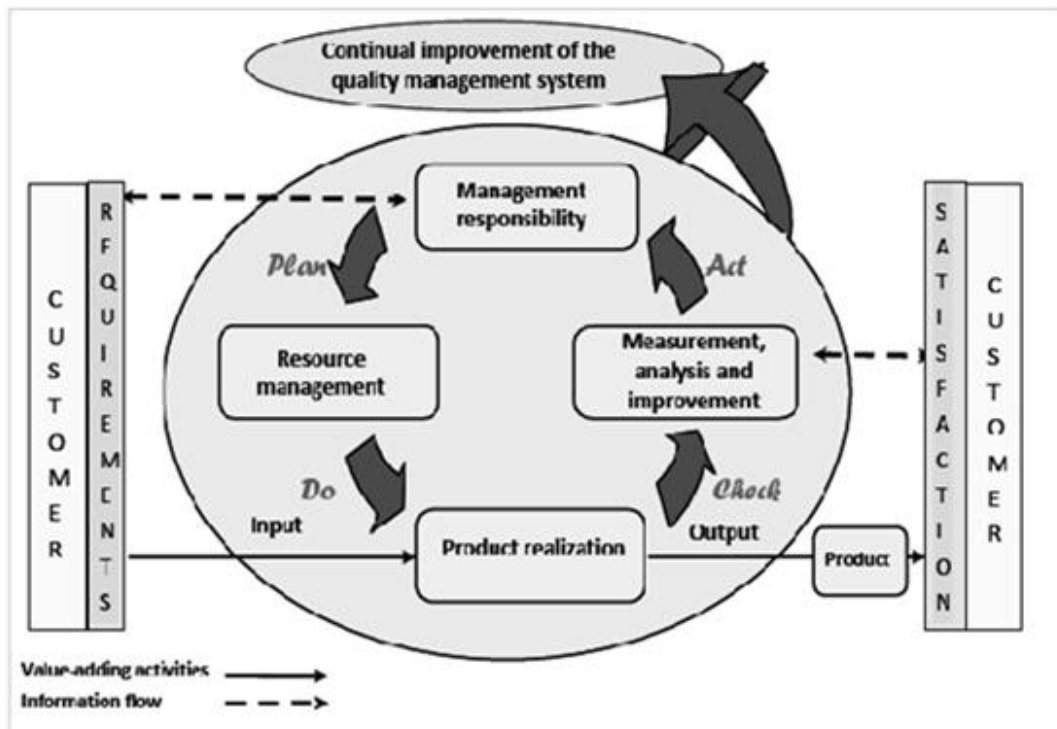
**Figure 3:** Maslow's Pyramid (Source: author, adapted from [www.suamente.com.br](http://www.suamente.com.br))



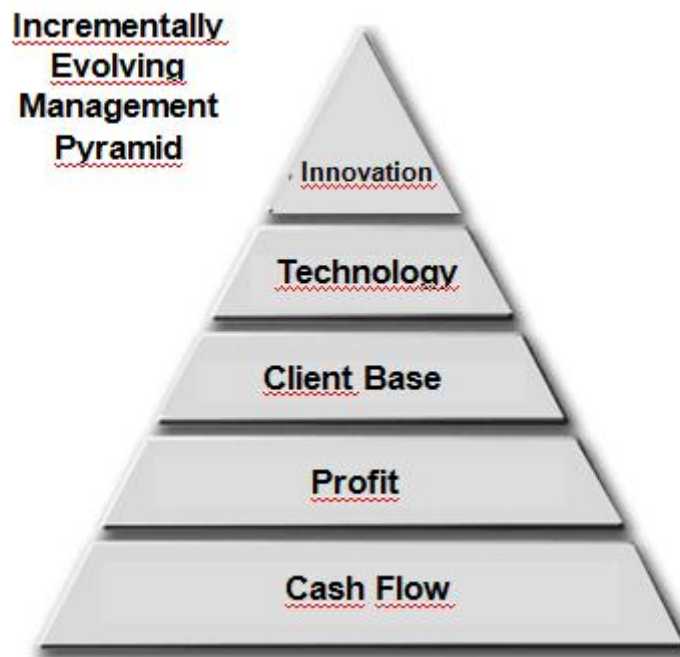
**Figure 4:** A Business Plan as an Intermediate Step between Strategy and Processes (adapted from Al-Debei)



**Figure 5:** Management by Processes – Integrated ISO 9001 System. Source: ABNT (2008)

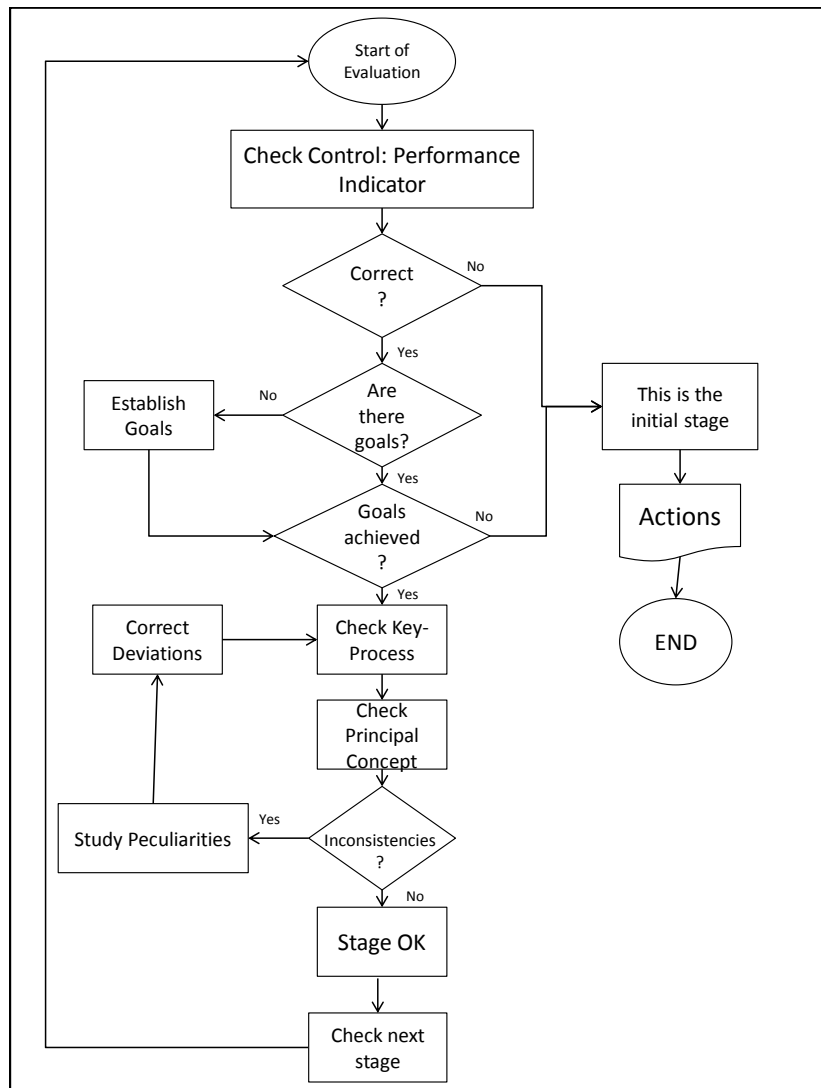


**Figure 6:** Incrementally Evolving Management Pyramid. Source: the author

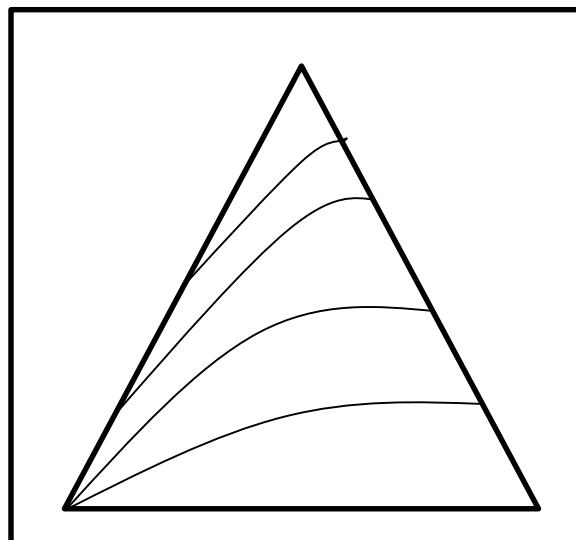




**Figure 7:** Flowchart to determine company's current status



**Figure 8:** Management Pyramid – Overlapping Stages



**Table 1: Physical Industrial Production in the Brazilian Printing Industry – IBGE**

	Printed Packaging	Editorial Printed Products	Commercial Printed Material	PRINTING INDUSTRY TOTAL	Manufacturing industry
2012	-0.8%	-6.1%	-10.2%	-4.3%	-2.7%
2013	-0.9%	-12.1%	3.5%	-6.7%	1.5%
Projection 2014	-	-	-	-1.7%	1.9% *

\* Market expectation, according to the Central Bank's Bulletin "Focus". Source: IBGE, BCB, ABIGRAF

**Table 2: Figures for Brazil's Printing Industry – 2010-2013**

	2010	2011	2012	2013
No. of Establishments (RAIS)	20,007	20,527	20,631	20,631
No. of Employees (RAIS)*	220,796	222,382	224,644	218,960*
Employee / Establishment	11.04	10.83	10.89	10.61
Trade Balance (US\$ Mi FOB)	-\$ 160.89	-\$ 295.53	-\$ 238.69	-\$ 269.54
Export (US\$ Mi FOB)	\$ 248.67	\$ 269.32	\$ 298.16	\$ 279.10
Import (US\$ Mi FOB)	\$ 409.87	\$ 564.85	\$ 536.85	\$ 548.64

\* 2013 – based on CAGED monthly estimates. Source: MTE/Rais and MDIC. Prepared by: Decon/Abigraf.

**Chart 1: Summary of Stage 1**

<b>Step 1: Cash Flow / Survival</b>
Performance Indicator: Cash Flow
Key process: Finance
Concept: Austerity
<p><i>Goals:</i></p> <p>1) Positive Cash Flow</p> <p>1 a) Without borrowing from Banks to enable Working Capital .</p> <p>1 b) Without being overdrawn;</p> <p>1 c) Without discounting invoices</p> <p>1 d) Equilibrium</p> <p>1 e) Positive Trend</p>
<p><i>Actions:</i></p> <ul style="list-style-type: none"> <li>- Control Expenditures;</li> <li>- Suspend Investments (except “obvious” issues);</li> <li>- Increase Sales;</li> <li>- Mid-term Balance between Payments and Revenue;</li> <li>- Renegotiations.</li> </ul>

**Chart 2: Summary of Stage 2**

<b>Step 2: Profit / Security</b>
Performance Indicator: Profit
Key process: Production
Concept: Productivity
Goals: 1) Increase Profit 1 a) Increase Margin of Contribution of Bottleneck Time 1 b) Reduce Amount of Downtime (Unproductive hours) 1 c) Reduce Setup Time 1 d) Reduce Wastage 1 e) Increase Production Speed
Actions: - Prepare / Review Cost and Budget System. - Prepare good Production Control. - External Setup - Analyze Bulletins - Analyze Errors / Non-Compliance Reports - Production Leadership

**Chart 3: Summary of Stage 3**

<b>Step 3: Client Base /Sociability</b>
Performance Indicator: Sales
Key process: Commercial (Sales)
Concept: Market Share / Pocket Share
Goals: 1) Established Customer Base 1 a) 60% "A"-grade Clients (Good Margin, Good Payers, Loyal). 1 b) 35% "B"-grade Clients (Positive Margin, Good Payers) 1 c) 5% "C"-grade Clients (Occasional) 1 d) Portfolio 1 e) Contracts
Actions: - Analyze Sales Team - Commercial Policy - Assess Estimates and Post-Sales System

**Chart 4: Summary of Stage 4**

<b>Step 4: Self-Esteem / Technology</b>
Performance Indicator: Operating Efficiency
Key process: Engineering
Concept: Technology / Competitive Advantage
Goals: <ul style="list-style-type: none"> <li>1) Operating Efficiency                             <ul style="list-style-type: none"> <li>1 a) Reduction in cost per piece produced</li> <li>1 b) Reduction in area needed for operation</li> <li>1 c) Reduction in personnel costs</li> <li>1 e) Increased margin</li> </ul> </li> </ul>
Actions: <ul style="list-style-type: none"> <li>- Analyze Industrial Machinery</li> <li>- Assess Investments</li> <li>- Assess Trends</li> <li>- New Technologies</li> </ul>

**Chart 5: Summary of Stage 5**

<b>Step 5: Innovation / Self-actualization</b>
Performance Indicator: All
Key process: All
Concept: Innovation
Goals: <ul style="list-style-type: none"> <li>1) Innovate with Results                             <ul style="list-style-type: none"> <li>1 a) Maintain positive indicators</li> <li>1 b) Create new competitive advantages</li> <li>1 c) Participate in clients' projects</li> </ul> </li> </ul>
Actions: <ul style="list-style-type: none"> <li>- Development of Projects</li> </ul>