THE PROCESS OF TRANSFORMATION OF THE BRAZILIAN ARMY FROM THE PERCEPTION OF MILITARY FORCE OFFICERS

ABSTRACT

The innovation, both technological and organizational, are no longer a fad, occupying a prominent place within organizations. With the opening of markets and sophistication of the standard requirements of consumers, both domestically as abroad, differentiation has become a slogan and innovation a necessity. Within the technological innovation activities of research and development are considered essential and deserves an increasingly attention of researchers. Traditionally regarded as a highly technical sector, with a focus on designing solutions technologically and commercially viable, R&D assumed new responsibilities, which implied a change of its profile, more fit to interact with other organizational units. This process implied, too, in the expansion of the symbolic universe of the group of experts that works in the R&D sector, with inclusion in its repertoire new values and images of the organization, represented in the decision-making process. The article analyzes the case of company BETA, a technology-based company, located in the metropolitan area of Porto Alegre, in order to understand social network that enhance the symbolic interpretation of technicians that work in the R & D sector, as to identify if and how this interpretation may influence decision about how to perform the activities of the technological research.

Keywords: Symbolic interpretivism; R & D sector; outsourcing activities.

1 He holds a bachelor’s degree in military sciences from the Military Academy of Agulhas Negras (1996), a Master’s degree in Military Operations from the School for the Improvement of Officers (2004) and a Dr in Military Sciences from the School of Command and General Staff of the Army (2016).
E-mail: alex_smor@yahoo.com.br

2 Professor at the University of Piura (Peru). PhD in Business Administration from Fundação Getúlio Vargas, FGV. Master’s and bachelor’s degree in Business Administration from the Federal University of Santa Catarina.
E-mail: valentina.schmitt@udep.pe
1 INTRODUCTION

The organizational transformation in the environment of the National Defense is a current issue in the main modern Armed Forces, and the same is true in Brazil. This is reinforced by the need to identify the modern threats in matters of Security and Defense, such as: social marginalization, uncontrolled migration, drug trafficking, terrorism, organized crime, human rights violations, environmental degradation and discrimination (COVARRUBIAS, 2005). These factors favor the outbreak of conflicts, requiring Armed Forces prepared and equipped in order to perform their duties promptly whenever necessary.

Modern conflicts have been demanding that the Armed Forces, and consequently armies shaped for the Industrial Age, seek transformation in order to adjust to the reality of the new conflicts characteristic of the Information Age (DRUCKER, 2002). Thus, the Armed Forces, from various parts of the world, are implementing innovation processes. Among the leading countries in the process of change are those of the United States of America (USA), Spain and Chile, whether in terms of management or insertion of technological innovations. However, it is important to highlight the role of the American model of defense transformation adopted by a growing number of countries (PRETORIUS, 2008).

In Brazil, the recent change is strongly marked by the creation of the Ministry of Defense (MD) in 1999, which replaced the former General Staff of the Armed Forces (EMFA). This first change in the management structure meant that instead of having three ministries with exclusively military characteristics - Aeronautics, Army and Navy - a Defense-focused portfolio was created, combining the three Forces and the civilian environment (SCHMITT and MARQUES, 2013). One of the consequences of the creation of the Ministry of Defense was the rapprochement between civilians and the military, which led to the expansion of joint discussions and the revision of the National Defense Policy, the elaboration of the National Defense Strategy and studies for the preparation of the White Paper on National Defense (VASCONCELLOS, 2011). The need arose for the Armed Forces to conform to this new reality - in its structures, management, materials, etc.

The Brazilian Army (EB), a public company, in line with the established context, sought to improve its management in the sense of adaptation and proactivity.

In the methodology, are the data collection and treatment. The results analysis is based on the analysis of clusters of social and financial indicators, the intersectoral comparison of the financial indicators and the degree of concentration. Finally, final considerations and references are presented.

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1 The new threats are a concept established by Mary Kaldor, arguing that the war as prescribed by Clausewitz was no longer applicable, since military means were no longer intended to defeat a National State, but to face other threats such as ethnic, religious, tribal conflicts, among others.
Reflection of the demands for updating, the EB (Brazilian Army) transformation process was implemented, establishing the Strategy: Braço Forte (Strong Arm)\(^2\) as guiding her actions. The organizational strategy was deployed, a priori, in seven vectors, namely: a) Science and Technology; b) Doctrine; c) Education and Culture; d) Management; e) Logistics; f) Preparation and Employment; g) Human resources. Still, the Strategy: Braço Forte (Strong Arm) was developed in two programs related to the articulation, the Program: Amazônia Protegida (Amazon Protected) and the program: Sentinela da Pátria (Sentinel of the homeland), and two programs related to the equipment, the Strategic Mobility Program and the Brazilian Combatant of the Future / COBRA (Brazilian Combatant) Program.

Under the Army Command and Staff School (ECEME)\(^3\), the theme and its improvement have become a constant among students and officers assigned to it for the exercise of professional activity. From this, it is visualized the relevance of the study process of transformation of the Brazilian Land Force\(^4\) from organizational transformation approaches\(^5\), facilitating the compression of this current phenomenon in the military organizations.

In view of the above, this study analyzed the perception of military students in the Army Command and Staff School (ECEME) regarding the influence factors in the process of transformation of the Brazilian Army (EB). The officers' understanding of the ongoing Force process results from the relationship between the seven transformation vectors established by the Ground Force and the dimensions of organizational transformation (MOTTA, 2001).

### 2 THEORETICAL REFERENCE

**2.1 Organizational transformation and the military environment**

In the daily life of companies, much has been said about changes in terms of culture, development of new products, recovery of position, administration with total quality, among others (MINTZBERG, 2006).

However, it is a common fact that a single product or a person can be easily changed, but changing an organizational structure or collective vision requires complex treatment (MINTZBERG et al., 2000). Academic approaches, because of their complexity, can make it difficult for managers to adapt their organization from different perspectives. Each manager tends to use the approach that is best suited to their way of doing things or the experience they have, Mintzberg points out. Organizational change involves both tangible and intangible elements.

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\(^{2}\) The Strategy: Braço Forte (Strong Arm) is the name given to the transformation project of the Brazilian Army.

\(^{3}\) It is the highest level school of the Brazilian Army (EB), which annually brings together two classes of officers, who will be, in the first instance, the advisers of the commanders at all levels. ECEME's mission (Brazilian Army Command and General Staff School) is to prepare senior officers for the functions of General Staff, Command, Management, Direction and Advising to the highest echelons of the Land Force.

\(^{4}\) The terms Brazilian Army, Army and Land Force will be used with the same meaning in this work.

\(^{5}\) The process of organizational transformation has several authors, however, this work will focus on Paulo Motta's approach.
In terms of strategic management, there are forces that condition the formulation and implementation, which can be summarized in the organizational structure, technological innovation, strategic leadership and organizational culture (HITT et al., 2002). Understanding the process of conducting strategies facilitates its application. Thus, the transformation can occur through several currents, which mark the understanding and the organizational development.

Different are the nuances related to the prevailing processes, it doesn’t matter whether they are derived from the companies, or their property. In public administration, even in the presence of strong beliefs about the effectiveness of the regular practice of strategic planning, there is still a limitation on the learning of the instrumentalization, especially in what concerns the execution of the proposed actions (SILVA e GONÇALVES, 2011). Through this reality, transformation comes from a complex, confused set of many contradictions. Farrel and Terriff (2002) argue that the basis of military change is culture, politics and technology. On the other hand, Motta (the work that was cited), unfolds the process in six perspectives, namely: strategic, structural, technological, human, cultural and political. Here we choose to analyze the process prioritizing the second approach, whose explanation of the component factors is described below.

In the strategic perspective, the company is understood as an open system and inserted in a social, economic and political context. It privileges its way of relating with the society, the reception of the products and its services. From this perspective, two well-defined aspects are considered: the relationship with society and strategic thinking (FARREL and TERRIFF, 2002).

From a structural perspective, the company is treated as a system of authority and responsibility, by the set of rules and guidelines that determine behavior. Therefore, in order to change a company, it is necessary to formally redistribute authority and responsibility (FARREL and TERRIFF, 2002). They are affected by this structure hierarchies, relations between individuals and, consequently, relations of power.

From a technological perspective, some elements are highlighted such as the division of labor, the specialization of functions and the type of technology employed in production. To change a company, one must emphasize and revise the way in which material and intellectual resources are used, redistributing functions and control. Innovations can be understood by centralizing process and information (FARREL and TERRIFF, 2002).

In the human perspective, the company is understood as a group of individuals and groups, focusing on the relationship of the individual with work, through a look at motivation, leadership and other psychosocial factors. Organizational change is focused on attitudes, behaviors and the participation of individuals. Innovations can be understood in four broad areas: moving between positions, contribution estimation, retribution and individual development (FARREL and TERRIFF, 2002).

The cultural perspective, involves the set of values, beliefs and habits collectively shared, and is expressed at various times in the company as in meetings, in structure, among others. The process encompasses the “collectively shared” above the individual aspect, focusing on each social group or organization (FARREL and TERRIFF, 2002). This dimension requires the care of addressing relevant, understandable and acceptable aspects of the community, above individual interests.

In the political perspective, the company is seen as a system of power in which people or groups seek greater influence in the decision making process. Power is seen as an end in itself or as an instrument for certain ideas to prevail over others, given that there are resource cons-
traints, power subgroups, influence disputes, and personal gain. Organizational change is seen as internal negotiation and conflict resolution (FARREL and TERRIFF, 2002). In public administration, in addition to the recurrence of themes, dilemmas, paradoxes and the search for new knowledge for the solution of practical problems, there is a certain naivety about the relevance of the political dimension and working conditions (MOTTA, 2013).

Through the diversity of perspectives, it must be understood that they do not exist in isolation. Each reality favors the predominance of one or another perspective, which is coherent to the configuration in the environment - as emphasized by Motta -, and can be applied to the transformation process of the Armed Forces. In addition, processes of change may be interfered with by different elements, directly or indirectly. Conflicts arising from interests, values, psychological aspects and operational obstacles can affect the life cycles of innovative projects, depending strongly on the political capacity of their leaders (DONATO, KUBO and DOMINGUES, 2013). For example, in situations such as the implementation of Information Management Systems, resistances may predominate in the political, human and cultural perspectives (PAIVA and ANDRADE, 2013).

In the management environment of National Defense company and their companies, the transformation process demands, in particular, the rupture of some traditional management models and the introduction of a new organizational culture that allows the promotion of an adequate environment for the innovative processes in the sector (FRANCO-AZEVEDO, 2013).

Possibly, culture is the basic point for the insertion of changes in such companies, a fact already recognized in the process of transformation of the Chilean Army (GÜSMAN, SCHMITT and MORETTO NETO, 2013). From another perspective, change in the military environment can be seen as an additional challenge, since military company, as socially closed and conservative communities, are especially unlikely to innovate (FARRELL, 2008).

2.2 Transformation in military companies focused on National Defense

In the traditional literature on management, one starts from the precept that the strategy precedes the configuration of the structure (CHANDLER, 2000). To transform a military company of National Defense, and therefore the Armed Forces, means to strategically adapt its structures to the formulated strategy, acquiring new capacities and contemplating elements such as: 1) the hypothesis of war (conventional threats); 2) new or unconventional threats; 3) strategic commitments; and 4) role in development (COVARRUBIAS, 2005). At the same time, there is a need to follow precepts from both public companies and the peculiarities of military companies.

Unlike the reality of civil companies, the military context demands that the professional be a fusion between profession and company, in which strict career and bureaucratic aspects are simultaneously present (CAFORIO, 2007). This situation requires the Armed Forces, especially in South America, the employment marked by the pillars of the destination of their countries, the capacities necessary for the fulfillment of their missions and the constitutional base that support their application (COVARRUBIAS, the work that was cited). Transforming the Armed Forces in South American countries means meeting each of these established pillars, according to three specific conceptions: adaptation, modernization and transformation - emphasizes Covarrubias. The distinction between each of the three elements is fundamentally in the degree of intervention, in the structures and capacities to reach the missions envisaged by the companies.
The adaptation provides for the adequacy of structures; modernization provides for the optimization of structures and concepts; while the transformation aims at developing new capabilities or even performing new functions. It is necessary to study and adapt these concepts to the national reality of each country - emphasizes Covarrubias (the work that was cited). Transforming means strategically adapting the structure, acquiring new capabilities, through a coherence between the legal base and its destination, while addressing the three fundamental pillars in this process, including elements such as: 1) the hypothesis of war (conventional threats); 2) new or unconventional threats; 3) strategic commitments; and 4) role in development, says the author. There is a high complexity and specificity involved in the process.

Covarrubias (the work that was cited) points out that the peculiarity of military company is that transformation is a process of anticipating natural changes, proactively acting in military and cooperative affairs by combining concepts, capacities, individuals and companies, exploiting the advantages of the nation and protecting themselves against asymmetric vulnerabilities. The aim of the transformation of the military company is, in general, a directed effort to improve performance in terms of efficiency in its employment, namely prompt response and management of resources (human, financial and material), a preemptive or preemptive attack, which differ specifically by the representativeness of the nation in the global scenario and the degree of information of the soldier in relation to public opinion, the author adds.

In illustrative terms, a transformed Armed Force reaches its peak of intensity sooner than a conventional military force, becoming shorter and less expensive (COVARRUBIAS, the work that was cited), as indicated in the following picture.

![Diagram of employment of the Armed Forces](image)

**Picture 1 – Table of employment of the Armed Forces. Sources: Covarrubias, 2005**

In order to deal with the context, the competences, within the environment of military companies, are developed throughout the career, in the different schools of formation.

Within the Army Command and Staff School, the highest level school within the land force, there is the understanding that competencies are composed of knowledge, skills, attitudes,
values and experiences. In this way, it starts from the logic that: 1. knowledge acquires; 2. Skills develop; 3. attitudes result from motivations; 4. values relate to the defense of the motherland; 5. experiences are experienced (SCHMITT, COSTA and MORETTO, 2012).

Values and experiences are unique aspects of everyday life and fundamental to the performance of military competencies. The development of current skills and knowledge, consistent with the current moment and with institutional practice become basic elements for the composition of a strategic approach. However, it is observed that in the Brazilian public administration the adoption of a model of management by competences is still very far from reality, especially due to cultural barriers (SILVA, MELLO and TORRES, 2013).

An example of the relevance of the educational process and the development of competencies lies in the transformation process adopted by the Chilean Army, which can be used as a reference in South America. The transformation effort of this company resulted from a process initially centered on an education with:

[...] a strong cultural connotation, which made possible subsequent and successive modifications in different areas, among which the change from a territorial paradigm to an operational one, with a great impact on the institutional structure and culture of the institution. This fact also allowed us to demonstrate, in the final analysis, that the process of institutional and especially cultural transformation was the object of both planned and unplanned circumstances which, in any case, contributed to the consolidation and continuity, of the process itself, taking into account its present condition of “continuous”. (GUSMÁN, 2013, page: 8)

In this case, it is verified that the transformation process was a reflection of the conjunction of factors in which the dimensions of culture, strategy and education were highlighted.

2.3 The process of transformation of the Brazilian Army

To understand the transformation in the Brazilian Army, it is relevant to analyze its contextual and organizational reality.

In contextual terms, two major milestones for the reconfiguration of forces were: 1. the creation of the Ministry of Defense in 1999 - a process previously mentioned; 2. The National Defense Strategy (E.N.D.) in 2009. The Ministry of Defense demanded from the military companies a new posture of management and perspective, especially of integration between forces and the rapprochement between civilians and the military. Subsequently, the National Defense Strategy was a legislative framework for the sector - for both public and private, civil and military companies - and it can be characterized as a milestone in the in the debate, which aims to provide an interaction of the civil and military segments of society (MAIA NETO, 2011). This document es-

6 What’s valued (free translation) – “What’s valued”. Networking, sensing, envelope management, speed, endurance, numbers, risk tolerance, staying power (free translation) – “Networking, sensing, envelope management, speed, endurance, numbers, risk tolerance, staying power”. Transforming Military Forces employing networking centric operations (free translation) – “Transforming Military Forces employing networking centric operations”. Traditional Military Forces conducting industrial age warfare (free translation) – “Traditional Military Forces conducting industrial age warfare”. Alter initial conditions (free translation) – “Alter initial conditions”. Influence initial conditions (free translation) – “Influence initial conditions”. assure, dissuade, deter, restore, compel (free translation) – “assure, dissuade, deter, restore, compel”.  

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established guidelines and guidelines for the Forces and was reformulated in 2013. In Vasconcellos’ view (2011), the E.N.D. (National Defense Strategy) represents the link between the concept and the policy of national independence, on the one hand, and the Armed Forces to safeguard that independence, from another.

In organizational terms, in the Brazilian Army, the transformation process has the strategic intention of making the company, in its entirety, an institution characterized by the integrated reality of National Defense. As a result, the Brazilian Armed Forces began to act under a context and organizational necessity, under a reality that demands cultural changes in their modus operandi, notably because of issues such as the need for civilian-military rapprochement, as well as greater interoperability between the Forces. In order to adapt to this reality, in terms of management, in the case of the Army was established the Strategy: Braço Forte - Strong Arm (EBF - Brazilian Army), “composed of 02 (two) plans, 04 (four) programs and 824 (eight hundred and twenty-four) projects, distributed in 129 (one hundred and twenty - nine) strategic actions “(the book: BRASIL, 2009, page: 7), to be deployed in the short, medium and long term (2014-2022-2030). In it, there were two programs concerning the articulation:

**Program: Amazônia Protegida (Protected Amazon):** Covering three main projects: Special Frontier Platoons, the Integrated Border Monitoring System (SISFRON) and Restructuring of the Jungle Brigades, completing and modernizing their operating systems.

**Program: Sentinela da Pátria (Sentinel of the homeland):** destined to the restructuring and the modernization of all the Brigades and structures of the other Military Commands of Area. (Brazil, 2010)

In addition, regarding the equipment, the Strategy: Braço Forte (Strong Arm) unfolds in two parts:

**Program: Mobilidade Estratégica (Strategic Mobility),** which will focus on the Army of the present, through which it intends to complete and modernize the equipments and the grants of supplies. The short-term actions will be of an urgent nature, so that by 2014 we have ensured the minimum levels necessary for the adequate development of the preparation and employment activities and, with this, the minimum dissuasive capacity has been restored. The acquisitions of this program must balance the guarantee of deterrent capacity; sufficient quantities to equip the units; the priority for domestic products; and the maximum technological advance possible.

**Program: Combate Brasileiro do Futuro (Brazilian Fighter of the Future) – COBRA –** destined to equip the Army of the future. Through Science and Technology projects, it will develop the weapons systems to be adopted from 2014, in compliance with one of the three so-called structuring axes contained in the E.N.D. (National Defense Strategy): to strengthen the National Defense Material Industry (Brazil, 2010).

The Army General Staff (EME) prepared, together with members of the EME 7th Sub-Unit - responsible for the Force’s strategies - with the contribution of several military companies - especially the Army Command and Staff School (ECEME) the document entitled “The Process of Transformation of the Army (PTEx)“. Its content showed that the permanence of the status quo (current situation) would not allow the Army to meet the demands demanded either by the National Defense Strategy (2008) or by the Strategy: Braço Forte (Strong Arm), says Maia Neto (2011).

In the Army Transformation Process, the need for internal organizational change stands out in order to make viable the Strategy: Braço Forte (Strong Arm), with three main areas of study.
being identified: doctrine, human resources and management. These areas make up the critical success factors that are associated with other issues such as: the actual number of approximately 200,000 (two hundred thousand) members; the large number of military companies (about six hundred and fifty); the high turnover of career staff; and discipline and hierarchy as basic principles of organizational culture (MAIA NETO, 2011), leading to the election of transformation vectors.

However, taking into account institutional structure and culture, actions to overcome each one will be conducted through Transformation Vectors (VT), which will include studies, diagnostics, conceptions, planning, the processes, the tools, the human resources, the skills and the necessary resources. (Brazil, 2010)

The Army General Staff and Sectorial Command Officers of the Army Command are responsible for conducting, analyzing and monitoring the transformation vectors, integrating them and providing the necessary resources for their development. seven vectors, to remember: Science and Technology, Doctrine, Education and Culture, Management, Logistics, Training and Employment and Human Resources.

The first vector (Doctrine) seeks to transform current doctrinal conceptions, necessitating adaptation to contemporary conflicts, such as: protection of the combatant, minimization of collateral damage to the population and the environment, public opinion, superiority of information and mastery of “situational awareness” (Brazil, 2010). In order to remove the Army from the industrial era for the information age, based on information technology (IT) tools, it is considered necessary to restructure the EB (Brazilian Army) Doctrine System, modernizing it and giving new functionalities, such as: doctrinal information, lessons learned, modeling, simulation, war study, and processing, formulation, experimentation, validation and diffusion. These elements are now considered the engines of transformation, being responsible for the institutional culture, supported by long-term scenarios, the employment hypotheses, based on a system of strategic, doctrinal and C & T (Science and Technology) prospecting. (BRASIL, 2010).

The second Vector, Preparation and Employment, seeks to transform the strategies of preparation and employment, which, moreover, are based on the conscription and carried out throughout the year of instruction. These facts make it difficult for the Land Force to follow the Country’s responsibilities assumed in the international context, and also fail to meet the needs arising from the Operational Plans related to Employment Hypotheses (BRAZIL, 2010).

The third Vector, Education and Culture, seeks to transform these areas. It is shown that the intention to overcome some deficiencies, such as the low efficiency of the training activity and the precarious mentality of innovation of the cadres. It is also necessary to understand the difference between Education and Training, the first being “intended to have permanent effects on human resources (HR)” and the second “aimed at the development of specific skills, with the require some kind of specialization “, showing that the process of transformation seeks greater effectiveness of its staff, after the completion of their courses (BRAZIL, 2010).

The fourth Vector, Human Resources Management, aims to transform HR (Human Resources) management in order to overcome some shortcomings, focusing on the adjustment of staff composition and personnel management. In the adjustment of the composition of the personnel, it is necessary to think of an adequacy of the personnel that fulfills the current strategic conception, focusing on the final activities. The management of competences becomes a vital point in order for EB (Brazilian Army) to have more qualified human resources and the necessary
quantity, being fundamental for the success of C&T (Science and Technology) activities, in addition to the new demands of specialization resulting from the transformation process.

The fifth Vector, Current Management and Strategy, seeks to transform the current management of the EB (Brazilian Army) and the current strategy, in order to improve the design of the Force, adopting structural and systemic measures for the Force. Among the structural measures are the reduction of personnel employed in activities other than operational and the modernization of administrative management methods; and the systemic measures emphasize the need to re-study the organizational structure of the top management of the EB (Brazilian Army) and focus on methods of management by projects and processes, with emphasis on execution.

The sixth Vector, Science and Technology (C&T) and Modernization of the material, seeks to transform the C&T (science and technology) area and the consequent modernization of military employment materials (MEM), given the extended lifetime of MEMs (military employment materials). This transformation is described as imperative and urgent, in order to allow the Earth Force to fulfill the new capabilities listed in the END (National Defense Strategy), monitoring / surveillance, mobility and presence, in addition to enabling the development capacity of its staff, especially the younger ones who enter the EB (Brazilian Army), such as the highest levels of Squares (such as the 3rd Sergeants) and Aspirants-to-officer.

The seventh Vector, Logistics, seeks to transform the logistics area of the Earth Force, which has already been a reference in the past. Currently, this dimension incorporates some concepts of civil companies as a way to improve their management. In this context, EB (Brazilian Army) has been improving its administrative management of logistics, creating management agencies of paramount importance to the Force, such as the Logistics Department (D Log). The execution of the logistics activity seeks to concentrate the logistical functions of transportation, supply and maintenance of material in a single Sector Directional body, as well as other structural changes in the Military Regions, broader division of the force structure and military companies, structuring elements of force component regions.

These vectors of the Strategy: Braço Forte (Strong Arm) aims to transform the Brazilian Army into a Force capable of fighting the threats of the 21st century, being consistent with the National Defense Policy and the National Defense Strategy. In terms of management, initially, innovations such as the implementation of process mapping, diagnostic management evaluation, delimitation of cost factors and adoption of functional structures are observed, and among others, the adequacy of the management public administration (CRUZ NETO, 2013).

The change, therefore, starts from the principle that new organizational configurations are derived from institutional processes, and it is difficult to maintain a single coherence, since they depend on different factors such as culture, values, competence, society and legality (MOTA, the work that was cited). There are many specificities that, in the military environment, there are three attributes that qualify the profession, being specialty, responsibility and corporatism. The specialty is gained through education and experience. Liability is acquired jointly with society. Corporatism derives from the consciousness of the professional group (HUNTINGTON, 1996). However, processes of this magnitude are likely to act as a factor in the disorganization of companies, causing them to unceasingly seek ways to manage an enormous range of information, seeking to analyze them and transform them into knowledge (DRUCKER, 2002). The diversity of information and conflicts arising from change are emerging processes to be managed during the
process of adaptation in order to obtain real improvements in processes. Even knowing the existence of the interdependence between competence and culture, these can be contradictory or complementary (FLEURY, 2009). Competences and culture influence the political-administrative organization of the Land Force, the Brazilian Army, even depending on variables independent of the will, such as geographic, demographic, economic, historical and cultural (VIEIRA, 2012). In addition, the bureaucratic organizational model characteristic of public companies, and consequently also of the Armed Forces, presents characteristics and criticisms, among which are the impact of the strict prescription of tasks on the motivation of the employees, resistance to changes and distortion of objectives.

In this sense, it is important to understand, also, the term public governance (GP), which in business language means a set of basic principles to increase the effectiveness of control; while in public administration it is characterized by a horizontal model of relationship between public and private actors in the process of public policy making (SECCHI, 2009). That is, the point of distinction lies in the breadth of participation and control, in order to achieve results.

[...] any empirical verification of public administration reforms must be attentive to the incremental aspects of organizational change. Rather than talking about the ascendancy, predominance, and decline of organizational models, it may be more fruitful to speak of a cumulative process of changes in practices and values (SECCHI, 2009, page: 365).

The organizational understanding starts from the need for behavioral alignment of the individuals that compose this institution, which is carried out from the staff tables, in a way analogous to the civil environment, levels of advice and management, so that they understand the perception that the cadres, recognized as opinion makers, have about the process becomes relevant to their conduct.

3. RESEARCH METHOD

The present work follows an explanatory and descriptive approach, since it tries to explain the questions of the process of transformation of the Army, describing its points considered central, which are the vectors of the Process of Transformation of the Army. To achieve this, a field survey was carried out, through the application of a structured questionnaire with 6 (six) closed, central issues, with developments related to the process. The questions covered, in their first part, elements related to the theme of the transformation of the Army. The questioning was of the kind: survey, which is structured in a survey method of public opinion survey - with five levels of response in the Likert scale - aiming to seek the opinion of the respondents, specifying their level of agreement with a statement. In the second part of the questionnaire, the respondents demanded an evaluation related to the perception on the conduct of the process of transformation of the Brazilian Army. At this stage, the respondents had the option of listing, among the initial items, which were perceived as having a greater degree of difficulty, especially the main items.

As a parameter for the questions presented in the research, the six variables chosen to define the transformation process were considered (MOTTA, the work that was cited), and the respective abbreviations were adopted in the body of the text: strategic (est), structural (etr), technological (tec), human (hum), cultural (cul) and political (pol). In addition, a question focused
on the perception of the respondents - official of the EB (Brazilian Army) - regarding the conduct of the transformation process.

Consequently, the relationship between the six variables (strategic, structural, technological, human, cultural and political) was established through logistic regression, with the positive or negative perception about the conduct of the current transformation process.

The research hypotheses were as follows:
- H1: the theory of organizational transformation can be applied to EB (Brazilian Army).
- H2: there is a relationship between the factors of organizational transformation and the process of transformation of EB (Brazilian Army).

The research universe was composed of military officers of the student body of the Command and Staff School (ECEME) of the Course of High Military Studies (CAEM), encompassing the students of the 1st year, with 130 military personnel, and the second year, with 110 military personnel. The sample was selected following the probabilistic sampling method, guaranteeing a margin of error of around 5% and a level of significance of about 95% (HAIR et al., 2009). The research sample was 148 (one hundred and forty-eight) respondents, 43 of the second year of CAEM (Course of High Military Studies) and 105 of the first year. The questionnaires were applied in a single moment in the month of November 2013 by means of a cross-section.

Data processing followed the quantitative method, using the SPSS 16.0 software as a processing tool, in order to support a Factor Analysis and a Binary Logistic Regression. The research was performed with SPSS 16.0 software, and 148 (one hundred and forty-eight) questionnaires were analyzed.

The limitations of the study are in the selection of the sample, since only military students of the ECEME (Brazilian Army Command and General Staff School) integrated the sample, which can harm the resulting generalizations. It is interesting to apply this questionnaire to other teaching institutes of the EB (Brazilian Army) and their companies, in order to broaden the aforementioned generalizations in the present work.

4. ANALYSIS OF THE RESULTS

4.1 Results presentation

The first step in the analysis of the data was the Cronbach’s alpha check, a kind of diagnostic measure of the reliability coefficient that evaluates the consistency of the entire scale, being the most used for such task. The purpose of the verification was in the confirmation about the potential of the variables raised for the explanation of the construct “Organizational transformation” of EB (Brazilian Army). As it is directed by HAIR et. al. (2005; 2009), desirable values are those above 0.7 and those below 0.5 invalidate the survey. The value found was 0.862 and, therefore, above the recommended value, confirming the acceptance of the chosen variables.

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7 Two-year course, which enables the officer to compose the Brazilian Army Staff.
The validity of this scale was sought, in order to measure really desired, seeking the internal validation through the equity in the application of the research instrument and the external validation through the validity of content, also called face validity, in which a specialist confirms the quality of the research. After verification of the reliability and validity of the construct, a factorial analysis was performed, only one factor that encompassed all the variables proposed, confirming, statistically, the H1 hypothesis of the investigation. In this way, it was possible to group them into a single factor, called “organizational transformation” - as shown in Table 1.1.

Table 1 - Factor and variables

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<th>Variables</th>
<th>Factor 1</th>
</tr>
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<tbody>
<tr>
<td>est</td>
<td>0,722</td>
</tr>
<tr>
<td>etr</td>
<td>0,801</td>
</tr>
<tr>
<td>tec</td>
<td>0,662</td>
</tr>
<tr>
<td>hum</td>
<td>0,814</td>
</tr>
<tr>
<td>cul</td>
<td>0,815</td>
</tr>
<tr>
<td>pol</td>
<td>0,718</td>
</tr>
</tbody>
</table>


From the analysis of table 01, in the construct (organizational transformation) three variables are highlighted in their relevance and influence, namely cultural (cul), human (hum) and structural (etr) - with values of 0.815, 0.814 and 0.801, respectively. After analyzing the interviewees’ perception regarding the conduction of the EB (Brazilian Army) transformation process, a total of 148 (one hundred and forty eight) valid responses were obtained, 87 (eighty seven) positive responses were obtained, while 61 (sixty one) responded negatively.

Table 2 - Correlations of Variables

<table>
<thead>
<tr>
<th>Correlation</th>
<th>est</th>
<th>etr</th>
<th>tec</th>
<th>hum</th>
<th>cul</th>
<th>Pol</th>
</tr>
</thead>
<tbody>
<tr>
<td>est</td>
<td>1,000</td>
<td>0,535</td>
<td>0,429</td>
<td>0,464</td>
<td>0,484</td>
<td>0,388</td>
</tr>
<tr>
<td>etr</td>
<td>0,535</td>
<td>1,000</td>
<td>0,486</td>
<td>0,523</td>
<td>0,586</td>
<td>0,482</td>
</tr>
<tr>
<td>tec</td>
<td>0,429</td>
<td>0,486</td>
<td>1,000</td>
<td>0,426</td>
<td>0,401</td>
<td>0,341</td>
</tr>
<tr>
<td>hum</td>
<td>0,464</td>
<td>0,523</td>
<td>0,426</td>
<td>1,000</td>
<td>0,675</td>
<td>0,559</td>
</tr>
<tr>
<td>cul</td>
<td>0,484</td>
<td>0,586</td>
<td>0,401</td>
<td>0,675</td>
<td>1,000</td>
<td>0,500</td>
</tr>
<tr>
<td>pol</td>
<td>0,388</td>
<td>0,482</td>
<td>0,341</td>
<td>0,559</td>
<td>0,500</td>
<td>1,000</td>
</tr>
</tbody>
</table>


In addition, through the analysis of table 02, it was possible to establish correlations between the variables of the organizational transformation construct, being considered acceptable
when greater than 0.500. It was verified that, according to the respondent, the strategy variable was chosen, this would increase the probability of electing the structural variable by 53.5%. In addition, it was observed that, as the respondent pointed out the structural variable, it would increase the chance of highlighting the strategy variable by 53.5%, increasing by 52.3% the chance of choosing the human variable and 58.6% by possibility of choosing the cultural variable. These findings highlighted and confirmed: 1. the strong relationship between strategy and structure; 2. the influence of strategy and structure on the human and cultural variables.

Still in table 02, as the respondent pointed out the human variable, the chance of choosing the structural variable increased by 52.3%, raising the chance of election of the cultural variable by 67.5% and by 55.9% the political variable. In addition, it was verified that as the respondent tended to choose the cultural variable, it would increase in 58.6% the chance to choose the structural variable and in 67.5% the human variable. Finally, if there were a choice of the political variable, it would increase the potential of the human variable by 55.9%. These results underscored the intrinsic relationship and influence between the human variables, with the cultural and political dimensions. In the applied logistic regression, we tried to evaluate - through the Omnibus Tests of Model Coefficients - to confirm the perception about the positive perception of the studied ones about the conduction of the transformation process of EB (Brazilian Army). In this test, the hypothesis would be rejected if its significance was less than 0.001. In the screen survey, the significance was found to be 0.000, even though the “block 1” test was able to predict 70.9% of the time, being higher than “block 0”. Therefore, the variables used increase the capacity to predict that the prioritization of a respondent’s opinion is that the transformation of EB (Brazilian Army) is being well conducted - from the perspective of the sample studied.

In addition, it was performed the test of Hosmer-Lemeshow, aiming to verify the adjustment between model and data. The value found was 0.543, indicating good adjustment to the research performed - values above 0.05 being a reference for the positive statistical significance.

Table 3 - Logistic Variables

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>Df</th>
<th>Sig</th>
<th>Exp (B)</th>
<th>95,0% C. I. for EXP (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>est</td>
<td>0.508</td>
<td>0.240</td>
<td>4,476</td>
<td>1</td>
<td>0,034</td>
<td>1,661</td>
<td>1,038</td>
</tr>
<tr>
<td>etr</td>
<td>0.295</td>
<td>0.305</td>
<td>0,935</td>
<td>1</td>
<td>0,334</td>
<td>1,343</td>
<td>0,739</td>
</tr>
<tr>
<td>tec</td>
<td>0.494</td>
<td>0.239</td>
<td>4,291</td>
<td>1</td>
<td>0,038</td>
<td>1,639</td>
<td>1,027</td>
</tr>
<tr>
<td>hum</td>
<td>0,358</td>
<td>0.256</td>
<td>1,961</td>
<td>1</td>
<td>0,161</td>
<td>1,430</td>
<td>0,867</td>
</tr>
<tr>
<td>cul</td>
<td>-0,186</td>
<td>0.267</td>
<td>0,482</td>
<td>1</td>
<td>0,488</td>
<td>0,831</td>
<td>0,492</td>
</tr>
<tr>
<td>pol</td>
<td>-0,081</td>
<td>0.216</td>
<td>0,140</td>
<td>1</td>
<td>0,709</td>
<td>0,922</td>
<td>0,604</td>
</tr>
<tr>
<td>Constant</td>
<td>-4,705</td>
<td>1,139</td>
<td>17,076</td>
<td>1</td>
<td>0,000</td>
<td>0,009</td>
<td></td>
</tr>
</tbody>
</table>


From the analysis of table 03, we verified the relation of the perception about the process of transformation - positive or negative - to the detriment of the perspectives of analysis. Individuals who perceived the process of transformation of the EB (Brazilian Army) in a positive
way, generally delayed the strategic (est) (0.508), technological (tec) (0.494) and human (hum) (0.358) perspectives as priorities. It was also verified that the individuals who prioritized the cultural (cul) (-0.186) and political (pol) (-0.081) dimensions tended to perceive the conduct of the process negatively.

It is important to highlight that the model obtained was able to correctly predict 70.9% of the responses. In total terms, 148 (one hundred and forty-eight) valid answers, the model presented 87 (eighty-seven) times. For this reason, it can be said that the adopted model had good predictive capacity satisfactory. This finding confirmed the Hypothesis H2 of the study, that there is a relationship between the factors of organizational transformation and the process of transformation of the EB (Brazilian Army).

Finally, a statistical description was established with the purpose of verifying the maximum and minimum values, the mean and the standard deviation on the transformation process of the EB (Brazilian Army), according to table 04. The descriptive statistics showed that there is no consensus about the transformation organizational structure in any of the requirements. There is, however, a tendency for agreement, since the average values are higher than 3. It can be said that respondents, as a matter of priority, believe that the chosen perspectives are relevant to explain the organizational transformation of the Brazilian Army.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Std. Error</th>
<th>Statistic</th>
<th>Statistic</th>
<th>Statistic</th>
<th>Statistic</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>est</td>
<td>148</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>3.39</td>
<td>0.078</td>
<td>0.944</td>
<td>0.944</td>
<td>0.891</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>etr</td>
<td>148</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>3.49</td>
<td>0.071</td>
<td>0.861</td>
<td>0.861</td>
<td>0.741</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tec</td>
<td>148</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>3.51</td>
<td>0.079</td>
<td>0.958</td>
<td>0.958</td>
<td>0.918</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hum</td>
<td>148</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>3.32</td>
<td>0.088</td>
<td>1.069</td>
<td>1.069</td>
<td>1.143</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cul</td>
<td>148</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>3.31</td>
<td>0.082</td>
<td>1.002</td>
<td>1.002</td>
<td>1.005</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pol</td>
<td>148</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>3.23</td>
<td>0.085</td>
<td>1.037</td>
<td>1.037</td>
<td>1.076</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>148</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


4.2 Discussion of the results

It was verified that the seven vectors of transformation - Science and Technology, Doctrine, Education and Culture, Management, Logistics, Training and Employment and Human Resources - are related to the six chosen perspectives: strategic, structural, technological, cultural and political.

A factor analysis was carried out, the following perspectives were highlighted as being of greater importance: cultural, human and structural. This result indicates that the respondents identify in these three factors the main aspects that influence the process of organizational transformation. This aspect was evidenced in the correlation table, in which the cultural perspective...
has a high index of correlation with the human and structural perspectives, highlighting the importance of the Education and Culture vector.

It is important to note that the same dimensions were the ones that showed the greatest attention when carrying out additional efforts in conducting a similar process in the Chilean Army Chileno (GUJMÁN, the work that was cited). The same holds true for the case of the American Army, where it was observed that while individual leadership knowledge are relevant factors in organizational transformation, actors as agents of change and consumers greatly influence the creation of a new vision and strategic plan for achieving operational efficiency (KOHNKE and GONDA, 2013).

Such results can be explained by the fact that, in transformation processes, the work of behavioral change is necessary, in order to alter individual cognitive processes and organizational paradigms (PORRAS and SILVERS, 1991). The effort influences the awareness of the process, making it more visible to the members of the company, and in a broader perspective, it allows one to understand how and when to initiate changes affecting strategy, structure, and consequently change. In addition, it must be noted that: 1. company that aim to change must know aspects of the culture that can impose restrictions, as well as those that strengthen the process of change (MOTTA and CALDAS, 2009); 2. the relation between culture and the human factor, whereas this is central element in the understanding of the way individuals interpret reality and give meaning to what is happening around them (SCHEIN, 2009); 3. The fact that strategy must precede the definition of structure, as pointed out by Chandler (the work that was cited).

In this sense, analyzing the counterpart between theory and practice, with respect to the cultural dimension, it is observed that the company studied - the EB (Brazilian Army) - has developed different actions, among which stand out the awards for approved innovations and texts on professional subjects published; emphasis on language teaching; encouragement to read modern publications on professional, national and international issues; greater coexistence with the military of other Forces, with civilians and with foreigners; study trips to more developed countries; and master’s and doctoral courses in civil institutions.

Such initiatives corroborate the need to focus on the cultural identity of the company, without damaging the sense of organizational identity, preserving its culture and favoring its cultural diffusion (MOTTA, the work that was cited). Likewise, it responds to the demand that in order to develop skills for contemporary employment, it is necessary to think of a cultural change that adapts them to the demands currently required (COSTA, 2012; 2013).

The human perspective - also pointed out as a prominent factor - can be explained, in particular, by the fact that public managers have the purpose of organizing, motivating and guiding actions of other people for the creation and achievement of objectives that justify the use of public authority (LYNN, 2010). In addition, changes become perennial when there is behavioral change of individuals (MOTTA, the work that was cited).

Thus, institutional practice has focused efforts on the implementation of measures, among which the following stand out: valorization and increase of the number of temporary and trainees; outsourcing of administrative activities; and the administrative rationalization of operational military companies. These actions corroborate the fact that in order to change a company, one must: change attitudes, behaviors and the form of participation of individuals; and provide satisfaction and harmony to the work environment, both as factors of achievement and personal progress as drivers of efficiency - as highlighted by Motta.
With regard to the structural perspective, it is noted that the EB (Brazilian Army) has been implementing measures, such as: the increase and increase in the number of staff in the remunerated reserve contracted; the employment of civilians, in a system that includes training and the elaboration of a career plan; administration by processes; and the decentralization of functional responsibilities and responsibilities, complementing the transformation of positions of officers into positions of positions. These actions again reinforce the relevance of an innovation having characteristics, among which: establishing a logic consistent with the hierarchy of authority; distribute power compatible with the degree of responsibility; departmentalization to the maximum extent possible by objectives or geographic areas; design the structure based on projects or systems; and to grant authority over administrative means to those responsible for the end-activities.

However, in the logistic analysis performed, the results allowed an insight into the factors that most affect the perception about the good conduction of the transformation process under way in the EB (Brazilian Army). The results showed that for this good conduct of the process the strategic, technological and human perspectives stand out.

It is corroborated that the bases of the change in the military company are the technology, culture and politics, reinforcing the importance of the vectors Doctrine, Science and Technology and Human Resources. (FARREL and TERRIFF, 2002)

It is important to highlight the relationship obtained between the cultural and political perspectives, which indicate a decline in the perception of the good conduction of the transformation process of EB (Brazilian Army). In other words, even given the contributions of the cultural perspectives - in the identity of the company - and politics - to an effective system of power and influences in decision-making processes, in turn generate a negative perception in the respondents about the good conduct of the process desired. Although the cultural perspective is of great relevance, as emphasized in the factorial analysis, it, when highlighted in the logistic regression, favors a poor perception of the good conduct of the transformation process. Conversely, with the strategic perspective, the distinct effect occurs when it proves to be fundamental for a good perception of the transformation process of EB (Brazilian Army).

5. FINAL CONSIDERATIONS FOR ORGANIZATIONAL MANAGEMENT

The study made it possible to evaluate the perception of opinion formers in the institution studied, which are ECEME students - (Brazilian Army Command and General Staff School) - at the time of the study - and now staff officers. Thus, it is concluded that the perspectives of the chosen organizational transformation indicated that the perceptions of the respondents are significant to explain and justify the ongoing process in the company studied. The existing perception indicates a path in this complex and relevant process for the Earth Force, with emphasis on the relevance of the cultural, human and structural perspectives.

There is a strong relationship between the positive perception about the conduct of the transformation process, with the sense of relevance of the strategic, technological and human perspectives - a fact that is characteristic, at a certain point, of military companies, as commented previously. It is pointed out the relevance of managers directing communication efforts and improving processes in this direction, aiming to increase the potential for positive perception by the population studied.
The relation between the negative perception about the current transformation process and the understanding of the relevance of the cultural and political perspectives demands attention. The need to observe and focus on these two perspectives is stressed in order to reverse any unwanted situation and maximize the potential of the efforts made. With such a posture, a process of innovations in the Defense sector is avoided within an adequate environment, without a rupture with the traditional model of administration (FRANCO-AZEVEDO, 2013).

Finally, the cultural and political perspectives of the studied institution deserve attention through efforts in the Transformation Process and, specifically, through the Strategy: Braço Forte (Strong Arm). It is believed that the promotion of actions that stimulate a change in the positive sense of the respondents’ perception, in an effective way, would demonstrate the potential contribution to the efforts made. The affirmation is emphasized, in view of the acceptance of the other perspectives.

This work advocates the need to understand the approach used, as a way to amplify the communication and image of the transformation process in the organization studied - the Brazilian Army. It is also important to highlight the role of current and future leaderships within the company, in order to achieve high levels of performance, that the process becomes sustainable and that the company reaches a higher objective of adequacy to the needs of National Defense.

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