Organizational Culture and Stages of Internationalization: a Study in Four Companies in the Brazilian Electrical-Metal-Mechanical Segment

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ABSTRACT

The study aimed to identify values and cultural dimensions of companies at different stages of internationalization according to the Uppsala model. We developed a construct to identify the values of organizational culture through the Organizational Culture Profile (OCP) mapping model. The study is descriptive. To classify the internationalization stage we conducted structured interviews. Referring to the internationalization stages the Alpha company is in Stage 1, the Beta company in Stage 2, the Gamma is in Stage 3 and the Delta in Stage 4. In the Beta and Delta companies, the cultural values are present and in the Gamma company they are partially present. In the culture dimensions, collectivism and cultural consistency predominate. The companies classified in the more advanced stages of internationalization (2, 3 and 4) share similarities in values and cultural dimensions. For the Beta, Gamma and Delta companies the results are in accordance with the models used.

Keywords: Cultural values. Cultural dimensions. Organizational culture. Stages of internationalization.

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1 INTRODUCTION

In order to understand an organization it is important to know its organizational culture (OUCHI, 1980; WILKINS; OUCHI, 1983). According to Hofstede (1991), culture is understood as a collective mental programming that distinguishes a particular group from others. Culture is learned and not inherited; that is to say it is a learning process. Understanding people means understanding their origins from their present behavior and therefore the future behavior that can be expected (HOFSTEDE, 1994).

In another conception, organizational culture is understood as something that gives consistency to the organization and its staff, provides a framework for the development of activities and sets a standard for how people relate (SCHNEIDER, 1996).

Organizational culture is like the personality of the organization and studying it in depth is important to implement processes of change and deal with one’s own culture in a more adaptive and effective way. It can be the difference in achieving proposed objectives (DUBRIN, 2003).

While conducting the literature review on organizational culture, we found studies relating to culture and internationalization, but with a focus on cross-cultural studies (HOFSTEDE, 1980; ADLER; GRAHAM, 1989; USUNIER, 1998; MIROSHNIK, 2002; VAN MAANEN, 2005). There is a gap regarding studies relating to organizational culture and internationalization stages of companies.

From the perspective of organizational culture and internationalization, Cavusgil et al. (2010) considers it important to study the culture in the context of international business. The influence of cultures (national, professional and corporate) tends to increase as people are socialized into the profession and in the workplace. Most companies have their own set of norms, values, beliefs and patterns of behavior that distinguishes them from other organizations. The time a company has been in the market influences the corporate culture.

Johanson & Wiedersheim-Paul (1975) considered the development of operations in several countries and identified four different stages of internationalization. The accumulation of international experience allows the company to assume increasing levels of commitment of resources, leading it to sequentially choose entry modes with higher levels of ownership and control. The sequence of four stages of the Uppsala model called the establishment chain is: Stage 1 – non-regular export activity (sporadic exports), Stage 2 – exports through
Based on the above, the focus of this study is to identify and map organizational culture and its values and dimensions at different stages of internationalization of companies. The identification of the organizational culture is performed through adoption of the Organizational Culture Profile (OCP) mapping model developed by O’Reilly et al. (1991) and revised by Sarros et al. (2005), and an adaptation of the dimensions of organizational culture of Bates et al. (1995). The verification of internationalization stages of companies is performed through the establishment chain of the Uppsala model developed by Johanson and Wiedersheim-Paul (1975) and Johanson & Vahlne (1977).

It is important to understand the values and dimensions that make up the organizational culture in the internationalization stages of companies. For that, we formulated the following guiding question: **What are the dimensions and values of organizational cultures in different internationalization stages of the Uppsala model?**

For the study purposes, values are elements of organizational culture and dimensions represent aspects of culture that can be compared to another culture, and each dimension comprises a number of aspects.

In order to answer this research question, the following general goal was defined: to identify the values and cultural dimensions of organizations in four different internationalization stages of the Uppsala model. As specific objectives, we have: i) to characterize organizations according to the organizational variables of size and structure, according to Hall (1984); ii) to determine the internationalization status of the Uppsala model of companies; iii) to identify the values of organizational culture through an adaptation of the Organizational Culture Profile (OCP) mapping model developed by O’Reilly et al. (1991), as revised by Sarros et al. (2005), and an adaptation of the organizational culture dimensions proposed by Bates et al. (1995); and iv) to compare the values and cultural dimensions of organizations in different stages of internationalization in order to identify whether there are differences.

We assume there are different values and cultural dimensions in organizations that are in different internationalization stages. Organizations that are in the first stage of internationalization, i.e., those that only sporadically export, may have different cultural standards from organizations that are in other internationalization stages. In addition, we
assume that organizations in more advanced internationalization stages have similarities in cultural patterns.

As a delimitation of the study concerning the stages of internationalization, the Uppsala model (JOHANSON; WIEDERSHEIM-PAUL, 1975; JOHANSON; VAHLNE, 1977) was used as regards the chain of ownership, or the four stages of internationalization. The psychic distance of the Uppsala model was not addressed, because this model’s focus is not part of the purpose of the study, since the authors themselves, when revisiting the Uppsala model (2009) state that due to the context of the international market, its importance in the model has diminished.

The Uppsala model was revisited by Johanson & Vahlne (2009) and Schweizer, Johanson & Vahlne (2010). These authors added some variables, but the model retains the same basic structure of the original from 1977. Here we use the original version of the Uppsala model, considering that the basic structure of the model remains the same and that we believe the proposed adaptations made to the model needs to be further researched.

2 THEORETICAL BASES

Organizations are both agents of change and the main stability sources of a society, and they affect it in unintended ways through the structuring of social life. By causing an impact on their members, organizations are also active participants in the process of social change (HALL, 1984). Most analysts conceive social organizations as networks of social relations and shared guidelines, often referred to as social and cultural structure (BLAU, 1977).

As a company’s size increases, the simple and centralized structure is replaced by a bureaucracy characterized by hierarchy and specialization. This allows for decentralization because employees are increasingly controlled by the formalization of rules and norms (DONALDSON, 1999).

2.1 ORGANIZATIONAL CULTURE

Smircich (1983) mentions that from the beginning of the 1970s, the subject of organizational culture began to gain depth, a decade earlier than the timing suggested by Martin & Frost (2001). According to them, further studies on organizational culture occurred in the 1980s. Most of the studies cite the success of Japanese management and the flaws found in traditional organizational reviews as the probable catalyst for awakening managerial interest in corporate culture.
According to Pettigrew (1979), culture is a system of collectively accepted meanings operating in a particular group in a given time. He also notes that the manifestation of the concept of culture occurs through symbols, languages, beliefs, rituals and myths.

Organizational cultures is learned, shared and transmitted (JACQUES, 1951). Organizational culture develops in response to a complex set of factors. The history of the organization affects culture in terms of the organization's age and the owners’ philosophy and values (BARTHORPE; DUNCAN; MILLER, 2000).

Hofstede (1980, 1991) outlined some major developments in the field of culture, where culture has been addressed within a broader context of national dimensions, not only organizational. In turn, Deal & Kennedy (1982), Peters & Waterman (1982), and Kanter (1989) focused on organizational culture (BARTHORPE; DUNCAN; MILLER, 2000). We decided to use two typologies among the ones found, one developed by O’Reilly, Chatman & Caldwell (1991) and one by Bates et al. (1995).

The Organizational Culture Profile (OCP) model developed by O’Reilly, Chatman & Caldwell (1991) seeks to identify and compare the values of organizations and their employees. The original OCP consisted of eight dimensions of organizational culture: innovation, attention to details, result orientation, aggression, support, emphasis on rewards, guidance for the team, and decision, consisting of 54 values. In a revision of the OCP model, Cable & Judge (1996) reduced the values of the original model to 40. In another revision of the model, Sarros et al. (2005) also removed some dimensions. The version applied here consists of seven dimensions: competitiveness, social responsibility, support, innovation, emphasis on rewards, performance orientation and stability, comprising 28 values.

The dimensions and values of the Organizational Culture Profile model (OCP) are detailed in Figure 1.

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitiveness</td>
<td>Focus on achievement of what was planned</td>
</tr>
<tr>
<td></td>
<td>Emphasis on quality</td>
</tr>
<tr>
<td></td>
<td>Distinction</td>
</tr>
<tr>
<td></td>
<td>Being competitive</td>
</tr>
<tr>
<td>Social Responsibility</td>
<td>Being reflective</td>
</tr>
<tr>
<td></td>
<td>Good reputation</td>
</tr>
<tr>
<td></td>
<td>Being socially responsible</td>
</tr>
<tr>
<td></td>
<td>Having a clear guiding philosophy</td>
</tr>
<tr>
<td>Support</td>
<td>Focus on teams</td>
</tr>
<tr>
<td></td>
<td>Sharing information</td>
</tr>
<tr>
<td></td>
<td>Focus on people</td>
</tr>
</tbody>
</table>
Collaboration among people
Innovation
Search for innovation
Quickly taking advantage of opportunities
Taking risks
Support for individual responsibility
Emphasis on rewards
Justice and equality
Opportunity for professional growth
Higher pay for high performance
Recognition for performance
Performance orientation
High expectations for performance
Stimulus to work
Focus on results
Being very organized
Stability
Stability and constancy
Tranquility
Employment guarantee
Low conflict

Figure 1 – Dimensions and values of the revised Organizational Culture Profile (OCP) model
Source: Sarros et al. (2005, p.167).

Sarros et al. (2005) used a Likert scale of 5 points for the presence of model values: the higher the score values, the higher the presence thereof.

Bates et al. (1995) defined three dimensions in order to analyze the organizational culture: individualism versus collectivism, power distance and cultural congruence. The authors mention that originally Georgopoulos & Mann (1962) developed the scales comprising the dimensions of organizational culture and Taylor & Bowers (1972) developed scales for mainstreaming individualism versus collectivism. In turn, Aiken & Hage (1966) developed scales that comprise the dimension of power distance. Mowday & Steers (1981) and Price & Mueller (1986) developed scales for mainstreaming cultural congruence.

For the individualism versus collectivism dimension, they Georgopoulos & Mann (1962) and Taylor & Bowers (1972) used four scales to assess the degree to which individuals perceive which practices represent individualism or collectivism. The power distance dimension is directly related to the way found by different societies to deal with the issue of managing inequalities between individuals.

For the individualism versus collectivism dimension, four scales were used to assess the degree to which individuals perceive practices that represent the individualism or collectivism: 1) coordination of decision-making; 2) supervisors as group leaders; 3) rewards for group performances; and 4) problem solving by small groups (BATES et al., 1995).

The power distance dimension is directly related to the form found by different societies to deal with the issue of managing the inequalities between individuals. Three scales were used to measure the distance of power, which are: 1) contact on the factory floor; 2)
centralization of authority; and 3) hierarchical index. The more the practices are equal, the smaller the power distance is (BATES et al. 1995).

The cultural congruence dimension distinguishes clans and hierarchical cultures in which values and beliefs are shared. Cultural congruence refers to the homogeneity among the various members and subgroups in organizations. The scale of loyalty measures the cultural congruence: if people identify their values with those of the organization and if they are proud to work in it. Also, there is the scale of philosophy, which measures the degree to which individuals believe there is a set of beliefs embodying the organizational recognition. A strong philosophy means the presence of a homogeneous culture, i.e., cultural congruence (Bates et al., 1995).

For this study, we consider values to be elements of organizational culture and dimensions represent aspects of culture that can be compared to the ones of another culture. Therefore, by linking the values and dimensions we have a description of the organizational culture.

2.2 INTERNATIONALIZATION BEHAVIORAL APPROACH

Behavioral theories of internationalization originated at the Uppsala University in Sweden. In the 1950s and 1960s, researchers at the school conducted several empirical studies that formed the basis for theoretical developments. Subsequently, other theories were incorporated and extended, and the group has become known as the Nordic School of International Affairs.

This study uses the behavioral approach of the Uppsala theory, an approach that best represents the goals proposed. Studies on the internationalization process of firms developed at the Uppsala School caused the international business affairs area to go beyond economic theory. Johanson & Wiedersheim-Paul (1975) and Johanson & Vahlne (1977) developed a model of sequential internationalization. This model emphasizes the increasing internationalization through acquisition, integration and use of knowledge in foreign markets.

For Johanson & Wiedersheim-Paul (1975), many companies start their international operations when they are still relatively small and gradually develop their operations abroad. From the international business studies at Uppsala University based on the internationalization process of Swedish companies, several observations have indicated that the internationalization process occurs gradually.
Johanson & Wiedersheim-Paul (1975) assumed that at first a company develops its internal market, and internationalization is a result of a series of incremental decisions. They believed that the main obstacles to internationalization are the lack of knowledge and resources. These obstacles are reduced through the incremental decision to learn about foreign operations and markets.

Other authors have produced several variants of the model, also discussing the idea of a sequential and incremental advance toward the broad commitment to international operations. However, the pioneering contribution of the Uppsala theorists is seen as the most important piece to understand the gradual involvement of companies in the international market (ROCHA; ALMEIDA, 2006).

3 METHODOLOGICAL PROCEDURES

This study is classified as descriptive with a quantitative deductive method (HAIR JR. et al., 2005; CRESWELL, 2007). For respondents to the instrument related to organizational culture values and dimensions, the population was four companies, with an intentional sample of 30 respondents per company. Intentional sampling “is a form of convenience sampling in which research trials are used to select sample elements” (HAIR JR. et al., 2005, p. 247).

First, to determine the internationalization status of the firms according to the Uppsala model, we conducted a structured interview with open questions. Second, to analyze the organizational culture we applied an instrument and compared the data by means of statistical techniques. The interview was conducted with the export manager of three companies and an officer of one company.

To identify the organizational culture, the instrument was composed of questions adapted from the Organizational Culture Profile (OCP) mapping model developed by O’Reilly et al. (1991), as revised by Sarros et al. (2005), with questions adapted from the dimensions of organizational culture by Bates et al. (1995). As applied in this study, these models identify the values and dimensions of organizational culture. Organizational values are identified by means of seven dimensions: competitiveness, social responsibility, support, innovation, emphasis on rewards, performance orientation and stability, comprising 28 values. The dimensions of organizational culture are identified through three dimensions: individualism versus collectivism, power distance and cultural congruence. We conducted a pre-test of the organizational culture questionnaire to verify the respondents’ understanding of each question, which identified some comprehension difficulties. Therefore, we revised the wording by replacing some words and phrases and reformulating some sentences to make
them clearer. To classify the Uppsala model internationalization status of each firm, we conducted a structured interview.

Based on the overall goal of the study – to identify values and cultural dimensions of organizations at different stages of internationalization according to the Uppsala model – we formulated two hypotheses, $H_1$ and $H_2$.

In order to understand an organization, it is important to know its organizational culture (OUCHI, 1980; WILKINS; OUCHI, 1983). Values are elements of organizational culture, dimensions represent aspects of culture that can be compared to another culture, and each dimension groups a set of aspects. If properly developed and disseminated, corporate values can become a source of competitive advantage (BOYD; BEGLEY, 2002).

From the perspective of organizational culture and internationalization, Cavusgil et al. (2010) consider it important to study culture in the context of international business. Most companies have their own set of norms, values, beliefs and behavior patterns that distinguishes them from other organizations.

According to Johanson & Wiedersheim-Paul (1975) and Johanson & Vahlne (1977), the stages of internationalization of the Uppsala model have different characteristics regarding the method of insertion, the market knowledge and experience of managers in the international markets and resources commitment.

A direct relationship between market knowledge and commitment to the market is postulated: knowledge can be considered as a dimension of human resources, so better knowledge about the market is the most valuable resource and therefore is associated with a higher commitment to the market (JOHANSON; VALHNE, 1977). That is, with increasing knowledge of the market, companies tend to increase their commitment of resources, which leads to decisions to increase the level of resources invested in the market (JOHANSON; VAHLNE, 1977).

Next, we present the two hypotheses and the parameters to accept or reject them:

$H_1$ – There are differences of values and cultural dimensions of organizations in the four internationalization stages of the Uppsala model. The parameters to accept or reject the hypothesis are: a) to accept $H_1$ – organizations must include differences in mean values and cultural dimensions in the four stages; b) to reject $H_1$ – organizations should not differ in mean values and cultural dimensions in the four stages.
The second hypothesis is:

\[ H_2 \] – Organizations that are in more advanced stages of internationalization in the Uppsala model show similarities in values and cultural dimensions. The parameters to accept or reject the hypothesis are: a) to accept \( H_2 \) – organizations in stages 2, 3 and 4 must have close mean values and above 3 points (these response options of the instrument are on a Likert scale of five points: 1 – absent, 2 – little present, 3 – somewhat present, 4 – present, and 5 – strongly present, following the scale of the OCP model, with an average above 3 indicating presence); b) to reject \( H_2 \) – organizations in stages 2, 3 and 4 must provide differentiated mean values of less than 3 points.

The technique used to test the hypotheses was the test for mean values and the dimensions of the organizational culture in internationalization stages. It was also possible to identify the values and culture dimensions prevailing in each internationalization stage, considering the mean scores. In addition, we tested the reliability by Cronbach's Alpha, which is a graphical analysis using boxplots, along with multiple discriminate analyses for categorizing the culture at every stage of internationalization.

The companies chosen were medium or large, considering the classification criteria of the Ministry of Development, Industry and Foreign Trade (MDIC, 2010), based on the number of employees and the level of export revenue. We opted for this criterion because the research involves companies that carried out at least one export operation in 2009. We chose business sector as industrial, more specifically the electrical-metal-mechanical segment in the state of Santa Catarina (companies with headquarters in the state that are not subsidiaries of multinational corporations).

We opted for this segment because it represents an industry with significant participation for the state of Santa Catarina (FIESC, 2010, p. 152). Another reason for choosing the segment is that “industrial activities that most employ people in the north-northeastern region of Santa Catarina are metallurgy and mechanics” (FIESC, 2010, p. 36). The regional location of the companies was: northern region, two companies; northeastern region, one company; and Vale do Itajai region, one company.

The choice of companies was accessibility. We contacted nine companies (pre-selected according to export range from the Ministry of Development, Industry and Foreign Trade), but only four authorized application of the questionnaire, so the sample was composed of four companies.
We defined a multivariate analysis technique, before collecting data. The technique was multiple discriminant analysis, and we observed that this technique required at least 30 elements. As a result, we used an intentional sample. There were 30 respondents per company, or 120 respondents in total.

This small sample size is an inherent limitation of this study. The fact of having two instruments (the questionnaire related to the organizational culture and structured interview concerning issues of internationalization) was an impediment for authorization, because permission was needed from two different areas of the organizations. Due to the small number of organizations surveyed, it was not possible to make a comparison between the organizations that are at the same internationalization stage. Thus, this study cannot be generalized. Another limitation of the study lies in the fact that the survey was conducted under the focus of quantitative approach of organizational culture, since some authors advocate a qualitative approach in culture studies.

In order to better represent goals, variables/categories, sub-variables/ sub-categories in the study, we present the research construct in Figure 2:
Objectives | Variables/Categories | Sub-variables/Sub-categories
---|---|---
1) Characterize organizations according to organizational variables | Size | Revenue (export)
 Structure | Hierarchical Levels

2) Verify the internationalization stage of the Uppsala model in which companies are | Stage 1 to 4 | Insert Mode
 Market Knowledge | Manager Experience

3) Identify the values and dimensions of organizational culture | OCP values by O’Reilly et al. (1991) reviewed by Sarros et al. (2005) | Competitiveness
 Social Responsibility | Support
 Innovation | Emphasis on Rewards
 Performance Orientation | Stability

4) Compare values and cultural dimensions of organizations in different internationalization stages to identify whether there are differences in them. | Values and cultural dimensions (identified in the 3rd objective) | Stage 1
 Stage 2 | Stage 3
 Stage 4

Figure 2 – Objectives, variables and sub-variables, categories and sub-categories of the study
Source: prepared by the authors.
4 ANALYSIS AND DISCUSSION OF RESULTS

For the characterization of Organizations and Internationalization Stages of the Uppsala model, companies were named Alpha, Beta, Gamma and Delta, at the request of companies and to protect its confidentiality as well. Figure 3 summarizes the characteristics of each company.

<table>
<thead>
<tr>
<th>Founding</th>
<th>Alpha</th>
<th>Beta</th>
<th>Gamma</th>
<th>Delta</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1948</td>
<td>1924</td>
<td>1932</td>
<td>1961</td>
</tr>
<tr>
<td>Industrial Segment</td>
<td>Metal-Mechanical</td>
<td>Metal-Mechanical</td>
<td>Metal-Electro-Mechanical</td>
<td>Metal-Electro-Mechanical</td>
</tr>
<tr>
<td>Size (MDIC *)</td>
<td>Medium sized</td>
<td>Large</td>
<td>Medium sized</td>
<td>Large</td>
</tr>
<tr>
<td>Structural Feature</td>
<td>Centralized Limited Liability Company</td>
<td>Decentralized Corporation</td>
<td>Decentralized Corporation</td>
<td>Decentralized Corporation</td>
</tr>
<tr>
<td>Export Starting Date</td>
<td>More than 20 years ago</td>
<td>More than 20 years ago</td>
<td>More than 30 years ago</td>
<td>More than 40 years ago</td>
</tr>
</tbody>
</table>

(* MDIC – Ministry of Development, Industry and Foreign Trade)

According to Donaldson (1999), when an organization increases the range and complexity of its outputs, that is, its products and services, or extends its territorial coverage internationally, it also increases its structural complexity and its decentralization degree. This applies to companies Beta, Gamma and Delta.

Based on the purpose of the second block of the research construct – to check the internationalization status of the Uppsala model of the surveyed companies, we formulated the categories Stage 1 – non-regular exports; Stage 2 – exports through representatives; Stage 3 – affiliate sales abroad; and Stage 4 – overseas production, which are composed by these sub-categories: entry mode, market knowledge and experience of managers in international markets. These sub-categories are the same for all four stages; what makes them different in each stage is how they are analyzed.
<table>
<thead>
<tr>
<th>Organizations and Stages</th>
<th>Sub-categories of analysis</th>
<th>Manager Experience in International Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alpha</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stage 1</strong></td>
<td><strong>Entry Mode</strong></td>
<td><strong>Market Knowledge</strong></td>
</tr>
<tr>
<td></td>
<td>- Spontaneous orders by customers;</td>
<td>- Initially had little knowledge of markets, but now has a deeper understanding;</td>
</tr>
<tr>
<td></td>
<td>- Has no formal export department;</td>
<td>- Considers knowledge fundamental;</td>
</tr>
<tr>
<td></td>
<td>- Progress in markets was gradual;</td>
<td>- Commitment of resources was gradual, mainly financial and technological ones.</td>
</tr>
<tr>
<td></td>
<td>- Entry mode was the same for all markets: demand from customers.</td>
<td></td>
</tr>
<tr>
<td><strong>Beta</strong></td>
<td><strong>Stage 2</strong></td>
<td><strong>Manager Experience</strong></td>
</tr>
<tr>
<td></td>
<td>- The company was initially introduced by another company in the foreign market, later the company's initiative was the search for markets;</td>
<td>- Knowledge of markets was a difference;</td>
</tr>
<tr>
<td></td>
<td>- Has an export department and a support team for exports;</td>
<td>- Main investments were in human resources in the field of technical standards, technical training and equipment.</td>
</tr>
<tr>
<td></td>
<td>- Works with representatives;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- The importance of the agent being local, because this is a customer requirement as in the case of the United States, Chile, Germany and Spain;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Progress in the markets was gradual.</td>
<td></td>
</tr>
<tr>
<td><strong>Gamma</strong></td>
<td><strong>Stage 3</strong></td>
<td><strong>Manager Experience</strong></td>
</tr>
<tr>
<td></td>
<td>- Has its own office in the United States;</td>
<td>- Knows the market fairly well;</td>
</tr>
<tr>
<td></td>
<td>- Negotiations with other countries are handled by the export department;</td>
<td>- Considers international expansion a result when the product meets the need of the customer.</td>
</tr>
<tr>
<td></td>
<td>- Progress in the markets was gradual.</td>
<td></td>
</tr>
<tr>
<td><strong>Delta</strong></td>
<td><strong>Stage 4</strong></td>
<td><strong>Manager Experience</strong></td>
</tr>
<tr>
<td></td>
<td>- At the beginning customers sought the company. Then it began to look for representatives and distributors, and created the export department;</td>
<td>- Had some knowledge of the markets at first, while today knowledge is much deeper and wider;</td>
</tr>
<tr>
<td></td>
<td>- After a period the company</td>
<td>- As the firm was seeking markets, it regularly</td>
</tr>
</tbody>
</table>
opened sales branches, and the export department became a trading company;

- In the sales area native speakers of the country were needed to understand the philosophy and culture;

- Apart from continuing to open branches, the firm started to set up factories abroad;

- Increase was gradual;

- The initial entry mode by representatives and distributors was the same in the markets; continuity is what differed for the markets in which the firm had stronger interest, commercial branches were opened and plants were established.

committed resources for exportation and internationalization;

- The investments have been extended to human resources and marketing resources.

years with the company.

Figure 4 – Summary of categories and sub-categories of the four stages of internationalization of companies Source: survey data.

Figure 4 shows that the Alpha company is in Stage 1 of internationalization according to the Uppsala model. The interview indicated that this company has no regular export activities, does not export through representatives, has no affiliate sales nor any production abroad, and the manager’s experience came with time, so that he now has acquired a deeper knowledge of the market. These features partly coincide with those presented in Johanson & Wiedersheim-Paul (1975) and Johanson & Vahlne (1977), mainly because the export activity is not regular.

The Beta company is in Stage 2 due to the fact that it has an export sales representative. The company has no sales affiliate abroad and no production outside the country. The interviewee stressed the importance of having local representatives in some countries as a demand from customers. The engineering team works in the areas or regions where the company has no representative, making direct sales in these countries.

Stage 3 is occupied by the Gamma company because it has sales affiliates abroad. According to the interview, this expansion was due to the need for international customer service and the manager’s experience proved to be decisive in expanding markets. These data confirm the assumptions by Johanson & Wiedersheim-Paul (1975) and Johanson & Vahlne (1977).
The Delta company is in the fourth stage of the Uppsala internationalization model. The interviewee stressed the passage through the four stages, confirming the findings of Johanson & Wiedersheim-Paul's (1975) and Johanson & Vahlne (1977).

4.1 IDENTIFICATION OF VALUES AND ORGANIZATIONAL CULTURE DIMENSIONS

The third objective of the study is to identify the organizational culture values, through an adaptation of the Organizational Culture Profile (OCP) mapping model developed by O'Reilly et al. (1991), as revised by Sarros et al. (2005), and the organizational culture values as adapted from the framework proposed by Bates et al. (1995). We analyzed the data by means of frequency analysis and checked the reliability by Cronbach's Alpha for each of the sub-variables presented in the construct that make up the values and dimensions. Due to space limitations, we present only the final graphical result of the data analysis, showing the categorization of culture by internationalization stage.

The graphical analysis was based on the median of responses and is presented below as boxplots to evaluate the data distribution.

Figure 5 – Graphical representation of sub-variables of the OCP values
Source: survey data.
Figure 5 presents the seven sub-variables of the organizational culture values, as measured by the instrument developed by O’Reilly et al. (1991) and revised by Sarros et al. (2005) in each of the four companies surveyed, categorizing them according to internationalization stages of the Uppsala model. According to the graphs of sub-variables of values for the Organizational Culture Profile (OCP) mapping model, these are the sub-variables social responsibility, emphasis on rewards and performance orientation, for graphically presenting a greater difference in score between the companies classified in Stages 1 (Alpha), 2 (Beta), 3 (Gamma) and 4 (Delta).

The graphs show the Alpha company on the left, which is the one that is in the first internationalization stage, and the Delta company on the right, the one in the fourth stage. Visually, one can see that in the first stage the company provides responses closer to values between 1 and 3 and the companies in other stages show responses between 3 and 5.

Taking into consideration the companies classified in the advanced stages of internationalization (Stages 2, Beta; 3, Gamma; and 4, Delta), there are similarities in the values competitiveness (Stages 2 and 4), support (Stages 3 and 4) innovation (Stages 2 and 4), emphasis on rewards (Stages 3 and 4), performance orientation (Stages 2 and 4) and stability (Stages 2 and 3).
Figure 6 shows the nine sub-variables of the organizational culture dimensions, as measured by the instrument developed by Bates et al. (1995) in each of the four companies surveyed, categorizing them according to internationalization stages of the Uppsala model. According to the sub-variable graphs of the organizational culture dimensions, these are the sub-variables of problem solving by small groups and philosophy for graphically presenting a greater difference in scores between the companies in Stages 1 (Alpha), 2 (Beta), 3 (Gamma) and 4 (Delta).

The same way as the sub-variable values were analyzed as boxplots, dimensions are shown in the four companies analyzed with the same conformation. The Alpha company, in the first internationalization stage, has values between 1 and 3, while the other three companies have values between 3 and 5.

Considering the companies classified in the advanced internationalization stages (Stages 2, Beta; 3, Gamma; and 4, Delta), there are similarities in the dimensions coordination of decision making (Stages 3 and 4), supervisors as group leaders (Stages 2 and 3), rewards for group performance (Stages 2 and 3), problem solving by small groups (Stages 2 and 3) contact in the production area (Stages 2 and 4), authority centralization (Stages 2 and 3), hierarchical index (Stages 3 and 4) and loyalty (Stages 3 and 4).

4.2 MULTIPLE DISCRIMINANT ANALYSIS OF VALUES AND ORGANIZATIONAL CULTURE DIMENSIONS

To perform the multiple discriminant analysis of values and dimensions of organizational culture, we tested the assumptions of multivariate normality (using the Kolmogorov-Smirnov, or KS, test) and absence of outliers and homogeneity of the variance and covariance matrices (using Box's M test). After these tests were performed, we could observe no multivariate normality and the homogeneity of variance and covariance matrices, precluding the multiple discriminant analysis of values and dimensions of the four companies.

We analyzed the data and found that the data from the Alpha company (Stage 1) varied from the data from other companies and were invalidating the normality of the data for the multiple discriminant analysis of values and dimensions of the four companies. Thus, we chose to disregard the Alpha company in the analysis of values and dimensions of organizational culture that best describe companies in their internationalization stages.

Concerning the organizational culture values, we aimed to verify whether there is a statistically significant difference between the scores of companies. In the multiple discriminant analysis, which aims to detect the discriminative ability or explanatory power of
the variables, we used the SPSS® software, which generates a discriminant function and the
eigenvalue of the data. Further, by using the specific function (Wilks' Lambda) test we could
verify its explanatory power. The discriminative ability generated was 76.4% and the lowest
Wilks' Lambda indicated a p-value of 0.000. These numbers indicate a difference between the
averages of variable groups; in this case, the culture values among the three companies
studied, indicating that the function has a high ability to discriminate between group elements
(CORRAR et al., 2009). These data led to the multiple discriminant analysis of cultural
values, i.e., what are the best discriminating variables, shown in Table 1.

Table 1 – Equal means of organizational culture value groups (test of equality of group means)

<table>
<thead>
<tr>
<th>Values</th>
<th>Wilks' Lambda</th>
<th>F</th>
<th>Df1</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitiveness</td>
<td>.718</td>
<td>15.694</td>
<td>2</td>
<td>.000</td>
</tr>
<tr>
<td>Social Responsibility</td>
<td>.453</td>
<td>48.387</td>
<td>2</td>
<td>.000</td>
</tr>
<tr>
<td>Support</td>
<td>.788</td>
<td>10.784</td>
<td>2</td>
<td>.000</td>
</tr>
<tr>
<td>Innovation</td>
<td>.706</td>
<td>16.626</td>
<td>2</td>
<td>.000</td>
</tr>
<tr>
<td>Emphasis on rewards</td>
<td>.696</td>
<td>17.437</td>
<td>2</td>
<td>.000</td>
</tr>
<tr>
<td>Performance orientation</td>
<td>.900</td>
<td>4.460</td>
<td>2</td>
<td>.015</td>
</tr>
<tr>
<td>Stability</td>
<td>.943</td>
<td>2.429</td>
<td>2</td>
<td>.095</td>
</tr>
</tbody>
</table>

Source: survey data.

According to Wilks' Lambda, the smaller the statistical variable, the better the
discrimination of groups (CORRAR et al., 2009). At this step of the multiple discriminant
analysis for values, social responsibility, emphasis on rewards and innovation are highlighted.
Using the stepwise technique, which inserts the variables in a model as a partial F-statistic
(MINGOTI, 2007), those that somehow are not discriminating in the model are removed.
Table 2 shows the values that were discriminatory to the study.

Table 2 – Identification of the cultural values variables through the stepwise method

<table>
<thead>
<tr>
<th>Step</th>
<th>Entered</th>
<th>Wilks' Lambda</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistic</td>
</tr>
<tr>
<td>1</td>
<td>Social Responsibility</td>
<td>.453</td>
</tr>
<tr>
<td>2</td>
<td>Innovation</td>
<td>.407</td>
</tr>
<tr>
<td>3</td>
<td>Support</td>
<td>.332</td>
</tr>
<tr>
<td>4</td>
<td>Emphasis on rewards</td>
<td>.299</td>
</tr>
</tbody>
</table>

Source: survey data.

For the dimensions of organizational culture, based on the collection instrument
developed by Bates et al. (1995), we found the same test values and a discriminatory capacity
of 62.0% and the lowest Wilks' Lambda presented indicated a p-value of 0.000. By finding
the differences between averages, there was also equality of means and with the stepwise method we found the discriminative variables, which are presented in Table 3.

Table 3 – Identification of the variables of the dimensions of culture through the stepwise method

<table>
<thead>
<tr>
<th>Step</th>
<th>Entered</th>
<th>Wilks’ Lambda</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Statistic</td>
<td>Statistic</td>
<td>Sig</td>
</tr>
<tr>
<td>1</td>
<td>Hierarchical Index</td>
<td>.868</td>
<td>5.609</td>
<td>.005</td>
</tr>
<tr>
<td>2</td>
<td>Coordination of decision making</td>
<td>.771</td>
<td>5.056</td>
<td>.001</td>
</tr>
<tr>
<td>3</td>
<td>Centralization of authority</td>
<td>.687</td>
<td>4.946</td>
<td>.000</td>
</tr>
<tr>
<td>4</td>
<td>Problem solving by small groups</td>
<td>.588</td>
<td>5.390</td>
<td>.000</td>
</tr>
</tbody>
</table>


The variables characterizing the most discriminating organizational culture dimensions are hierarchical index, coordination of decision-making, centralization of authority and problem solving in small groups.

4.3 TEST OF RESEARCH HYPOTHESES

In order to perform these tests, the mean values and dimensions of organizational culture of the four companies were calculated using the SPSS® software without the outliers. We performed Student’s t test with a significance level of 0.05. The parameters regarding the hypotheses of the study have already been mentioned. Table 4 shows the mean values and the internationalization stages.

Table 4 – Mean values of organizational culture in the four internationalization stages

<table>
<thead>
<tr>
<th>Culture Values</th>
<th>Organizations and Internationalization Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alpha Stage 1</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>3.750</td>
</tr>
<tr>
<td>Social Responsibility</td>
<td>2.100</td>
</tr>
<tr>
<td>Support</td>
<td>2.091</td>
</tr>
<tr>
<td>Innovation</td>
<td>2.875</td>
</tr>
<tr>
<td>Emphasis on rewards</td>
<td>1.603</td>
</tr>
<tr>
<td>Performance orientation</td>
<td>2.259</td>
</tr>
<tr>
<td>Stability</td>
<td>3.500</td>
</tr>
</tbody>
</table>

Source: survey data.

By analyzing the averages presented in Table 4, it can be observed that companies in Stages 2, 3 and 4 are all above 3 points. The average competitiveness and stability values of the company in Stage 1 are also above three points; the other values are below 3 points. Most of the mean values of the company in Stage 1 are different from the other averages.
By analyzing the dimension means of companies in the four stages in Table 5, it can be seen that firms in Stages 2, 3 and 4 are all above 3 points, except the centralization of authority dimension average, which is less than 3 points, and the hierarchical index average of the company in Stage 3, which is less than 3 points.

Table 5 – Average dimensions of organizational culture in the four internationalization stages

<table>
<thead>
<tr>
<th>Culture Dimensions</th>
<th>Organizations and Internationalization Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alpha Stage 1</td>
</tr>
<tr>
<td>Coordination of decision making</td>
<td>2.580</td>
</tr>
<tr>
<td>Supervisors as group leaders</td>
<td>1.641</td>
</tr>
<tr>
<td>Rewards for group performances</td>
<td>1.120</td>
</tr>
<tr>
<td>Problem solving by small groups</td>
<td>2.150</td>
</tr>
<tr>
<td>Contact in the production area</td>
<td>3.590</td>
</tr>
<tr>
<td>Centralization of authority</td>
<td>2.120</td>
</tr>
<tr>
<td>Hierarchical index</td>
<td>3.267</td>
</tr>
<tr>
<td>Loyalty</td>
<td>3.860</td>
</tr>
<tr>
<td>Philosophy</td>
<td>2.240</td>
</tr>
</tbody>
</table>

Source: survey data.

As shown in Table 5, the average contact dimension in the production area, the hierarchical index dimension and the company loyalty dimension in Stage 1 are also above 3 points; the other dimensions are less than 3 points. Most of the dimension averages of the company in Stage 1 are different from the other averages.

Based on the averages shown in the four stages (1, 2, 3 and 4) in Tables 4 and 5 and considering that there are differences of values and culture dimensions between Stage 1 and the other stages, as well as averages with higher differences, H1 – There are differences in values and cultural dimensions of organizations in the four internationalization stages of the Uppsala model is accepted.

Based on the averages shown in more advanced stages (Stages 2, 3 and 4) in Tables 4 and 5, H2 – Organizations that are in more advanced internationalization stages of the Uppsala model have similarities in values and cultural dimensions is accepted.

4.4 DISCUSSION OF THE RESULTS

Regarding the structure, according to Donaldson (1999) when an organization expands its territorial coverage and becomes international, it also increases its structural complexity and its decentralization degree. This applies to companies Beta, Gamma and Delta.
As company size increases, the simple and centralized structure is replaced by a bureaucracy characterized by a specialized hierarchy allowing for decentralization (DONALDSON, 1999). That is the case of Beta, Gamma and Delta companies.

Other variables can affect organizational values and dimensions of organizational culture, such as management style, technology, environment and strategic choices, variables that were not the focus of this study.

As for the internationalization stages (JOHANSON; WIEDERSHEIM-PAUL, 1975, JOHANSON; VAHLNE, 1977), the characteristics of the entry mode according to the market knowledge and managers’ experience in international markets were analyzed. Based on the results, we inferred that the Alpha company is in Stage 1, and the characteristics coincide with those presented in Johanson & Wiedersheim-Paul (1975) and Johanson & Vahlne (1977), mainly because the export activity is not regular. As for market knowledge, having a deeper knowledge differs from what is established by these authors for Stage 1.

The Beta company passed through Stage 1 and is in Stage 2. This advance in stages is consistent with Johanson & Wiedersheim-Paul (1975) and Johanson & Vahlne (1977). In addition, we inferred that the Gamma company passed through Stage 1 and is in Stage 3. That is, the company has progressed from Stage 1 to Stage 3, skipping one of the stages mentioned by the established chain. According to Johanson & Wiedersheim-Paul (1975), it is not expected that companies always follow all the stages of the chain. First, not all markets are large enough to demand all stages. Second, one can expect some skipping in the chain, as in the case of companies with extensive experience in other foreign markets.

The Delta company is in Stage 4 of internationalization. It passed through the four-stage sequence of the Uppsala model. The interviewee stressed the passage through the four stages, confirming what is shown in Johanson & Wiedersheim-Paul (1975) and Johanson & Vahlne (1977).

It is important to mention that global competition and rapid technological development are forcing companies to globalize more quickly than a few decades ago. In addition, it seems reasonable to assume that a more internationalized company deals with different views of markets and countries. The internationalization of companies is part of a changing world (JOHANSON; VAHLNE, 2003).

As for the values and dimensions of organizational culture, it was possible to perform the organizational culture mapping (O’REILLY et al., 1991; Sarros et al., 2005; Bates et al.,
In order to understand an organization, it is important to know its organizational culture (OUCHI, 1980; WILKINS; OUCHI, 1983).

The values are partially present in the Alpha and Gamma companies, showing that the results of these companies are partly in line with Sarros et al. (2005). The values are present in the Beta and Delta companies; in other words this denotes that these values are shared among people, which is in line with Sarros et al. (2005). The cultural congruence dimension is present at the Beta, Gamma and Delta companies, which is in line with Bates et al. (1995).

From the perspective of organizational culture and internationalization, Cavusgil et al. (2010) consider it important to study the culture in the context of international affairs. Through graphical analysis, in the companies classified in advanced internationalization stages (Stages 2 – Beta, 3 – Gamma and 4 – Delta) there is a similarity in the values of competitiveness, support, innovation, emphasis on reward, performance orientation and stability. In dimensions, there are similarities in coordination of decision making, supervisors as group leaders, rewards for group performance, problem solving by small groups, contact in the area of production, centralization of authority, hierarchical index and loyalty.

By the discriminant analysis and based on the comparative analysis of the mean values we have: a) the means provided by the Alpha company, which is in Stage 1, are below the averages presented by the Beta company, which is in Stage 2; b) the means shown by the Beta company, which is in Stage 2, are above the Gamma company’s means, which is in Stage 3; and c) the means shown by the Gamma company; which is in Stage 3; are below the averages presented by the Delta company, which is in Stage 4, except for the support value average.

Based on the comparative analysis of the dimension means, it can be seen that: a) the means provided by the Alpha company, which is in Stage 1, are below the averages presented by the Beta company, which is in Stage 2, except for the dimensions of centralization of authority and hierarchical index means; b) the means provided by the Beta company, which is in Stage 2, are above the means provided by the Gamma company, which is in Stage 3, except for the means of the centralization of authority and loyalty dimensions, and c) the means presented by the Gamma company, which is in Stage 3, are below the means presented by the Delta company, which is in Stage 4, except for the means of loyalty and philosophy dimensions.
While the main differences are between the Alpha company and the other companies, it is noteworthy that the Alpha company, the only one among those analyzed that is a family firm, is more centralized than the rest.

We addressed the variables of size and structure in the companies in which the values and cultural dimensions are more present as firms become more internationalized, e.g., they increase their structural complexity and degree of decentralization as they advance in the internationalization stages. The values are more shared, and the dimensions of collectivism and cultural congruence are more present in those companies.

In this study, the two contingency variables, size and structure, may be contributing to the increased presence of values and cultural dimensions in the later stages of internationalization. Despite management style not being the focus of this study, it can also interfere in the values and dimensions that characterize the organizational culture.

Some companies already have more professionalized staff, denoting a different way of managing. They are characterized by kinship bonds in some decision levels. These observations were made in the interviews, but were not raised in detail, and they do not appear in the data. Nevertheless, in future studies they can be explored further.

5 CONCLUSIONS

The study aimed at identifying values and cultural dimensions of organizations in different internationalization stages according to the Uppsala model. We analyzed the values and dimensions of organizational culture and the internationalization stages of the companies. The values were analyzed by means of an adaptation of the Organizational Culture Profile (OCP) mapping model developed by O’Reilly et al. (1991) and revised by Sarros et al. (2005), and an adaptation of the dimensions of organizational culture proposed by Bates et al. (1995). In turn, the internationalization stages were analyzed based on the establishment chain of the Uppsala model (JOHANSON; WIEDERSHEIM-PAUL, 1975; JOHANSON; VAHLNE, 1977).

In order to perform the analysis, we followed what is described in the research construct, which guided the study. The first goal was to characterize the organizations according to the organizational variables of size and structure as proposed by Hall (1984). In the second goal, we verified the companies’ internationalization stage according to the Uppsala model, based on the establishment chain of that model.
The third objective was to identify the values of organizational culture through an adaptation of the Organizational Culture Profile (OCP) mapping model by O’Reilly et al. (1991), as revised by Sarros et al. (2005), and an adaptation of the organizational culture dimensions of Bates et al. (1995). In the fourth goal, we compared the values and cultural dimensions of organizations in different internationalization stages to identify whether there are differences among them.

Concerning the study’s guiding question: What are the dimensions and values and culture organizations in different internationalization stages of the Uppsala model ?, we could see that in the Alpha company (Stage 1), values are partially present; and the among dimensions, individualism prevails at the expense of collectivism, the power distance dimension shows the division between greater and shorter distance and cultural congruence is partly present. In the Beta, Gamma and Delta Companies (Stages 2, 3 and 4 respectively), values are present in the Beta and Delta companies, and partially present in the Gamma company; in dimensions, collectivism prevails, the power distance dimension has a division between greater distance and shorter distance and neutrality and cultural congruence is present.

Through a graphical analysis (boxplot) of the values and dimensions of organizational culture of the Alpha, Beta, Gamma, and Delta companies, it was possible to verify that the following values stood out: social responsibility, emphasis on rewards and performance orientation. The dimensions that stood out were problem solving by small groups and philosophy. As discriminant variables of the Beta, Gamma, and Delta companies, the values of social responsibility, innovation, support and emphasis on rewards and dimensions, hierarchical index, coordination of decision-making, centralization of authority and problem solving in small groups were highlighted.

Concerning the hypothesis testing, \( H_1 \) was accepted, considering that there are differences in mean values and dimensions of culture presented between Stage 1 and the other stages, as well as means with higher differences. Considering the mean values and dimensions of culture presented in the more advanced internationalization stages, \( H_2 \) was accepted.

Through the study findings, it can be inferred that values and cultural dimensions are presented in different ways, especially in relation to Stage 1 versus the other stages. The values and dimensions are more strongly perceived in Stages 2, 3 and 4, which is in line with what is established in the thesis.
As for the first internationalization stage where export activity is non-regular, this aspect is not constant in the study, so the company that is at this stage had different values and cultural dimensions from the companies that are in advanced internationalization stages. Companies that are in more advanced internationalization stages showed similarities in values and cultural dimensions.

Based on the analysis results, it can be inferred that the Beta, Gamma and Delta companies’ results are in accordance with the models used and in line with the behavioral internationalization theory from Uppsala.

Finally, the study was theoretically based on the behavioral internationalization theory from Uppsala, which relates organizational culture and internationalization stages and was able to map and compare values and dimensions of organizational culture at each stage.

The study sought to generate knowledge about different cultures of organizations that are at different internationalization stages of the chain of the Uppsala model. The models used in the study had not been previously applied in research with the same goals; that is to say, relating the values and dimensions of organizational culture to the internationalization stages of the Uppsala model.

The present study does not intend to close any gaps or exhaust the concepts related to the topic studied. From this study, research opportunities arise, such as how to apply the instrument of organizational culture in this study in organizations that have production units in other countries, both in domestic and foreign units, with the aim of analyzing if in a single corporation, with units in distinct countries, these units have differences in values and dimensions of organizational culture due to country-specific characteristics.

A longitudinal study of stages of internationalization for companies in order to assess the level of knowledge and learning at each stage and their internationalization strategies at different stages, relating the study of economic theories of internationalization would be a useful extension of this study.

REFERENCES


