

Using CPI Relevant Profiles in the Human Resources Management for the Multinational Enterprises Architectures

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ABSTRACT

In the mechanical enterprises environment is important for the human resources to be able to develop specific ability in involving themselves in international projects, where they can cover using their skills specific tasks, modules of the project proposed by the big enterprises who are leading the field. Based on some case studies we intend to define in this paper the specific relevant psychological profiles for the mechanical engineers, who must be able to work in the Virtual Enterprise (VE) environment. For analyzing those requirements we had used CPI (California Psychological Inventory).

Keywords: virtual enterprises, multinational culture, psychological profiles CPI

1. INTRODUCTION

For the creation of truly global competitive advantages, MNEs need a growth and innovation strategy that effectively utilizes and channels the interplay between subsidiaries, divisions, corporate headquarters, and holdings. Such a strategy must be flexible and open enough for local excellence without losing too much of its global reach and sustainability. The more productivity pressures force MNEs to disperse their activities throughout the world and

the more competitive pressures impel close coordination of these operations, the more global growth strategies play a pivotal role in the success of the whole company.

2. SPECIFICATIONS

The concept of a Virtual Enterprise (VE) arose from this trend, and has been defined as "a temporary consortium of autonomous, diverse and possibly geographically dispersed organizations that pool their resources to meet short-term objectives and exploit fast-changing market trends" [1].

The VE is a temporary co-operation of independent firms to realize a short window of opportunity in a market that neither of the partners can exploit (or only to lesser extent) on its own.

The VE is about managing dynamic organizational and business change. Instead social interaction in the region provides much richer social communication than information technology would allow to support. In global virtual enterprises, with no doubt, information and communication platforms do play a much more important role

The VE is a way of inducing entrepreneurial spirit to revitalize the organization.

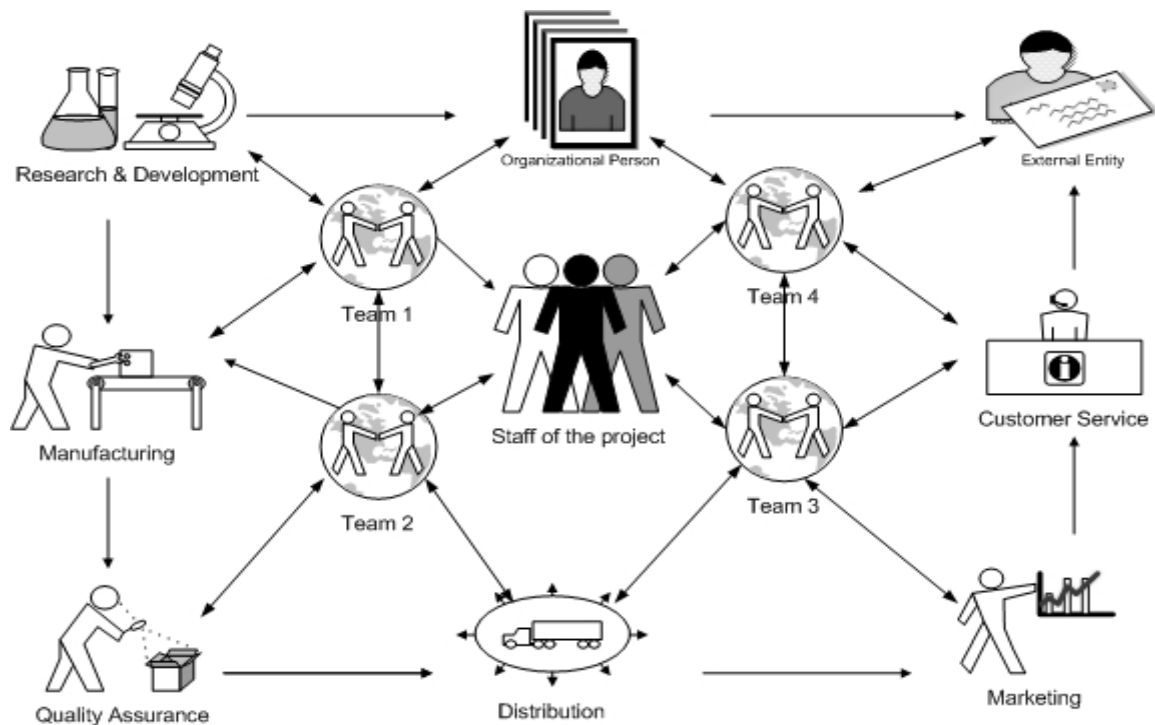


Figure 1. Virtual Enterprise

He or she provides liaison between the VE and the technological know how of his enterprise, the resources and the technology.

What we learned in both settings, regional and global networks, is that managerial competence to rapidly change the cooperative organizational arrangement from within must be backed by the cooperative culture of the partners.

The impact of multinational cultures economic (MNC) activities had an impact over the all aspects of economic, social and even political life of many countries.

The social impact of MNCs is very important. It sent about ability and role in influencing the organizational culture, the traditions and experience, by cultivating higher and more efficient standards and values.

Also, developing the social standards of some industrial countries, on the other hand, inducing dependence, inadequate practices, and hard to assimilate industrial values to the host country, which creates the premise of the real new colonialism.

Each type of MNC's actions may be either aggressive or defensive, depending by the steps of the competitors, the specific of the foreign country's economy and the type of the industrial activity, the phase of the firm's evolution.

3. THE MULTINATIONAL CULTURE

Multinational Corporation - MNC is a firm having operations in more than one country, international sales, and a multinational mix of managers and owners.. A MNE ordinarily consists of a parent company and at least six subsidiaries typically with a high degree of strategic interaction among the units.

Some MNC have more than a hundred subsidiaries and follow absolute and comparative advantages policies. MNC also have different number of foreign production sites, and thus, different numbers of international markets.

This company earns profits in different markets and not only operates in different countries but, owns alliances in other countries and has no allegiance to a particular country.

MNCs are based and owned in one country with manufacturing facilities in two or more countries in which profits are not invested [4]

The literature typically brings forward descriptive models of different stages/phases in the development of a multinational organization. One of the most prominent such phase models is that provided by Perlmutter [5].



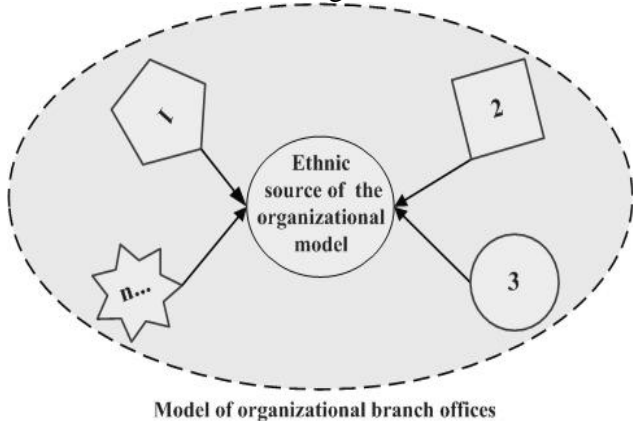
Model of organizational branch offices
Figure 2. Ethnocentric Corporation.

Perlmutter makes a distinction between 4 types of multinational enterprises: Ethnocentric, Polycentric, Regiocentric and Geocentric enterprises.

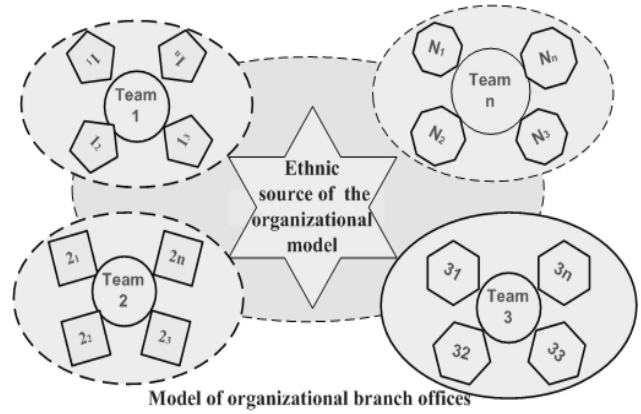
The first scenario analyzed is that of global corporations, also known as ethnocentric corporations, where there is a high degree of international cooperation in production, and a low degree of independence at the level of the branch companies (Figure 2).

The label ethnocentric derives from the fact that the management is based on strictly one nation's set of criteria, that is, the country of origin of the corporation. Identity is mediated through the values, language and higher management of the same national derivation, found in the mother company and at the higher levels of the different branches of the corporation. The company's decision taking is thus controlled by the mother company and a group of managers of the same nationality [6].

The ethnocentric enterprise in contrast, essentially extends headquarters ways of doing business to its foreign affiliates. Essentially this type of enterprise is interested in internalizing monopolistic advantages gained in home countries to include foreign locations



Model of organizational branch offices
Figure 3 Polycentric corporation



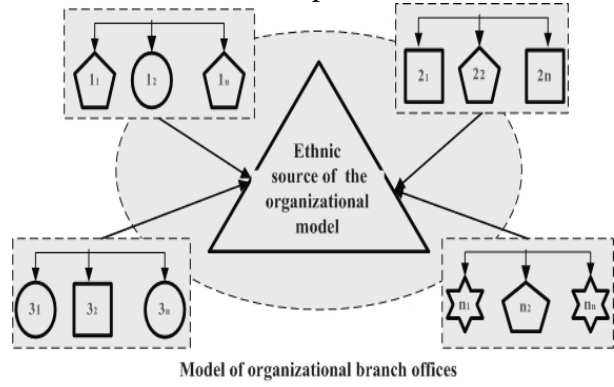
Model of organizational branch offices
Figure 4 Regiocentric culture

Controls are highly centralized and the organization and technology implemented in foreign locations will essentially be the same as in the home country.

The *polycentric enterprise* recognizes that there are different conditions of production in different locations and try to adapt to those different conditions in order to maximize profits is each location. The control with affiliates is highly decentralised and communication between headquarters and affiliates is limited (Figure 3).

Regiocentric (Figure 4) and geocentric (Figure 5) enterprise in contrast to the two former types of multinational enterprises, seek to organize and integrate production on a regional or global scale. Each production unit is an essential part of the overall multinational network, and communications and controls between headquarters and affiliates are less top-down than in the case of the ethnocentric enterprise.

In the case of the regiocentric and geocentric TNC, the implications for environmental conditions are less obvious. On the one hand, the ability to organize production on a regional or global scale will enable the company to take fully advantage of locational factors, including environmental costs of production.



Model of organizational branch offices
Figure 5. Geocentric Corporation.

The geocentric companies is similarly a high degree of international coordination on production, but where there is a greater degree of independence observable across branch companies, and greater orientation towards satisfying the demand among local markets. The heads of the branch companies enjoy greater autonomy and decision-taking is more horizontal, tending to be carried out among branch managers.

Management by process is emphasized as well as the increased need for communication between the management of the different branches.

A globally integrated production would imply that the company strives for a uniform global marketing image and for internationally coordinated management systems. Thus, the company could be expected to exercise environmental responsiveness regardless of location, as a bad reputation because of environmentally irresponsible behavior in one location, could seriously harm the image of the entire organization. Moreover, the regiocentric or geocentric enterprise will be better positioned to disseminate experiences and know-how concerning environmental management gained in one section of the enterprise, throughout the transnational network. This again would indicate uniform standards regardless of location, although for different reasons than the ethnocentric enterprise.

4. CALIFORNIA PSYCHOLOGICAL INVENTORY – C.P.I. CASE STUDY

The purpose of the CPI scales is stated by the author as follows: "Each scale is designed to forecast what a person will say or do under defined conditions and to identify individuals who will be described in characteristic ways by others who know them well or who observe their behavior in particular contexts".

Psychometric and conceptual analyses of the CPI instrument have identified three basic dimensions underlying scores on the folk and special purpose scales 7 (Gough & McAlliste 2004.) The items on the inventory produce scores for 18 scales, which are divided into four classes: measures of poise, ascendancy, self-assurance and inter-personal adequacy; measures of socialization, responsibility, intra-personal values, and character; measures of

achievement potential and intellectual efficiency; and measures of intellectual and interest modes. The scales of C.P.I. are structured in four dimensions.

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The scales are grouped for convenience into four broad categories, bringing together those having related implications:

- The first sector of the profile - *DEALING WITH OTHERS* - contains scales assessing interpersonal style and manner of dealing with others.

- The next sector of the profile - *SELF-MANAGEMENT* contains scales pertaining to the internalization and endorsement of normative conventions, including norms related to self presentation.

- The third sector of the profile - *MOTIVATIONS AND THINKING STYLE* - sheet contains three scales pertaining to cognitive/intellectual functioning and the need for achievement in either structured or open situations

- The final sector of the profile - *PERSONAL CHARACTERISTICS* - sheet contains three scales that assess broadly stylistic or qualitative aspects of thinking and behaviour. The type and level classifications given just above furnish initial guidance for interpreting this protocol.

This analysis of each of the 18 scales will lead to more specific comments than can be derived from type and level alone. A professional, individuated interpretation can, of course, go farther than this, taking account of patterns and configurations among the scales.

A decision about whether or not an individual's results on an instrument are valid enough for interpretation is a professional judgment. Psychometric and conceptual analyses of the CPI instrument have identified four basic dimensions underlying scores on the folk and special purpose scales.

The underlying logic here is interpretational, not factorial, i.e., these four categories do not necessarily constitute psychometric entities.

	A	B	C	E	F	G	H	I	L
1	Coeficient		Value				Average	Male	Female
2	Dominance	DO	34		TEST		50	56	63.2
3	Capacity for Status	CS	17				50	47.6	42.2
4	Sociability	SY	29		Compute		50	58	58.9
5	Social Presence	SP	35				50	64	53
6	Self-Acceptance	SA	24		Protect		50	63	61.2
7	Well-Being	WB	32				50	38	39.1
8	Responsibility	RE	29				50	40.6	47.7
9	Socialization	SO	41				50	53.2	54.4
10	Self-Control	SC	25				50	32.5	40.3
11	Tolerance	TO	14				50	33.5	30
12	Good Impression	GI	16				50	31.5	43.7
13	Communality	CM	25				50	51.7	45.5
14	Achievement via Conform	AC	28				50	44.1	50
15	Achievement via Independ	AI	14				50	37.2	37
16	Intellectual Efficiency	IE	35				50	44	41
17	Psychological Mindedness	PY	12				50	51.8	53.5
18	Flexibility	FX	3				50	46.8	32.6
19	Femininity/Masculinity	FM	21				50	57.7	44

Figure 6. The interactive digital variance

The CPI instrument has a number of features that can assist the professional in determining the validity of results. Three of the folk scales provide direct feedback about the quality of the individual's results. A series of actuarial indicators are also available. Well-being (**Wb**), Good Impression (**Gi**), and Communality (**Cm**) each provide meaningful information about the validity of results on the CPI 260™ instrument. These scales indicate the possibility of random responding, inability to read, errors in marking, or a fake-bad profile.

Case study

California Psychological Inventory was applied at a number of 46 students (24 female students and 22 male students).

The purpose of the testing was to select the persons with the best psychological profile for specific requirements demanded by the VE.

From the 18 scales of CPI, 10 were selected (Do, Cs, Sa, Re, So, Sc, Sc, Ai, Ie, Py) as the most relevant to the specific post requirements. CAD, CAM & CAE engineering postulation was considered for different positions in VE human resources architectures as specific employment requirements in this environment (Gough & McAllister, 2004).

Interactive testing was performed using a digital variant of the test performed in the same time by all the applicants in a LAN of the PREMINV Centre.

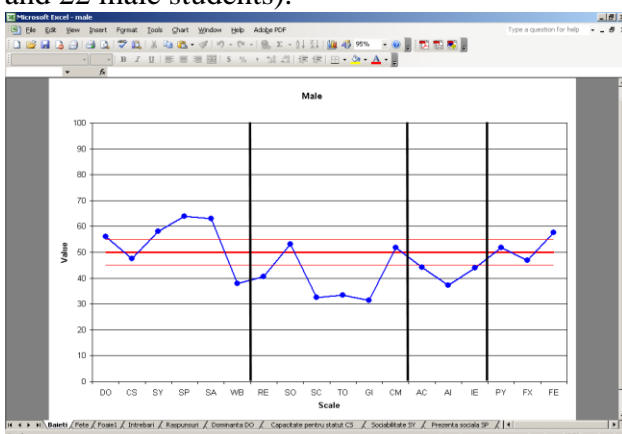


Figure 7. The male profiles

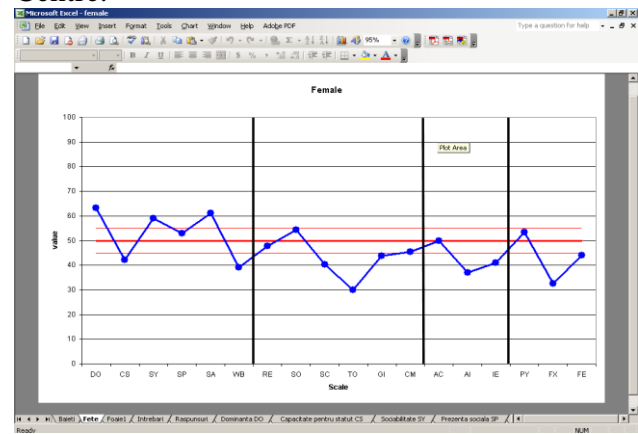


Figure 8. The female profiles

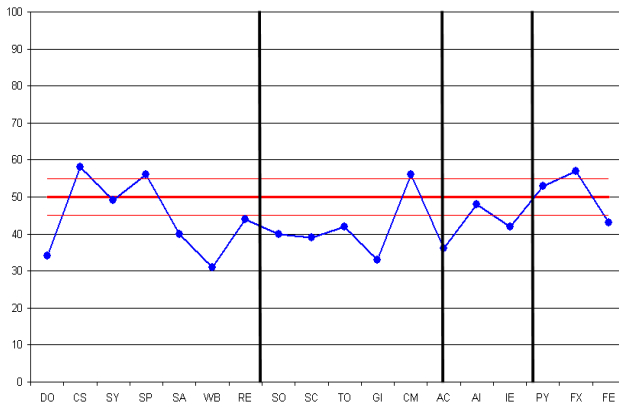


Figure 9 (a) Female profiles selected

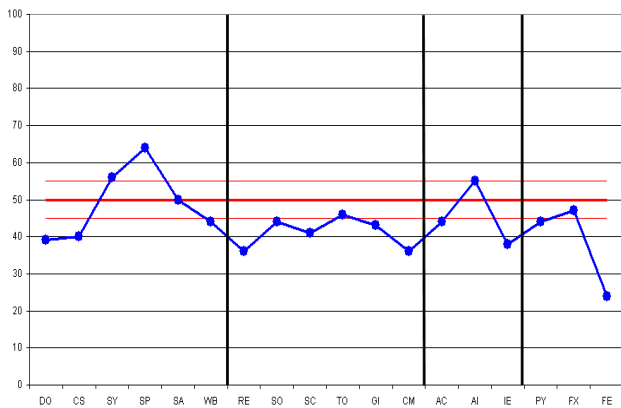


Figure 9 (b) Male profiles selected

The final results were automatically downloaded in a data base used for generating the psychological profile for every subject (Figure 6).

After application CPI, we were obtained the male profiles and female profiles (Figure 7 and Figure 8).

5. CONCLUSION

The test results for the 10 relevant scales were related with the other 8 (considerate with a lower weight in the final appreciation) in order to allow a complex interpretation of the profiles. From 31 postulants only 2 obtained satisfying results for all the 3 post profiles, according with the specific requirements implied by CAD, CAM & CAE practice in VE environment (figure 9 a – female profile selected and 9 b male profiles selected).

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