The Market Orientation as a Key Dimension of Innovation Culture – Study of Polish Lingerie Company

Katarzyna Krot and Dagmara Lewicka

***Abstract*—An organisational culture open to creativity and innovation, is a key determinant of company competitiveness. Being a multidimensional phenomenon, innovation cultures can vary widely from one company to another. The survey which was conducted for the purpose of this paper aimed at analysing the pro-innovation organisational culture of Gaia (a Polish producer of lingerie). It was also designed to examine the different ways in which particular groups of employees perceived this culture. The obtained results indicate that the innovation culture of Gaia is market-oriented and customer-focused.**

***Index Terms*—Organisational culture, innovation, market orientation, Poland.**

I. Introduction

Innovation is a source of sustained competitive advantage of a firm and a contributory factor of its market success. Innovating companies are more flexible, quick to recognise changing conditions and adapt to them; they are open to new modes of thinking and to visionary concepts. As Drucker said, a firm should create new opportunities and exploit existing ones to a greater extent than the competition [1]. This situation has led to increased interest among researchers and businesses to gain a better understanding of how to improve the capacity to innovate [2], [3]. Many of them focus on factors which are on the organisational and social interface, such as organisational culture.

II. Theoretical Background

In an organisation environment, innovation is the implementation of ideas surrounding new product/services or modifications to existing ones, restructuring or cost savings initiatives, enhanced communications, personnel plans (process related), new technologies (technology/research and development based), unique employee behaviours (behavioral based), or organisational responses to opportunities (strategic) and unscripted situations [4], [5].

Innovativeness in an organisation could be broadly defined – ranging from the intention to be innovative, to the capacity to introduce some new product, service or idea through to the introduction of processes and systems which can lead to enhanced business performance. This is also evidenced by the connection between innovation and market orientation.

Cultural openness to innovation is a prerequisite for building the innovation advantage of enterprises [6]. Culture in organizations is defined as the deeply seated values and beliefs shared by employees at all levels, and it is manifested in the characteristics of the organization. It epitomizes the expressive character of employees and it is communicated and reinforced through symbolism, feelings, relationships, language, behaviors, physical settings, artifacts, and the like [7]. This is supported by rational tools and processes defined by the strategic architecture of the organization [8], and through expressive practices of employees [9].

Ahmed (1998) emphasized that culture is the pattern of arrangement or behaviour adopted by a group (society, corporation, or team) as the accepted way of solving problems. As such, culture includes all the institutionalised ways and the implicit beliefs, norms, values and premises which underline and govern behavior [10].

The basic elements of culture influence innovation in two ways: through socialization [11] and through basic values, assumptions and beliefs [12] that become the guide for behaviors [13].

Therefore, generating innovation requires an organisational culture that continually encourages organisation members to seek novel solutions and that fosters a climate conducive to creativity. It means that, besides individual and environmental factors, organisational culture is an important determinant of innovation [14]. Numerous authors have undertaken research into the relationship between organisational culture and innovation. They have noticed strong links between certain types of organisational culture and the level of innovation [15]-[20].

According to Cameron and Quinn (1999), the type of organisational culture which most favours innovation is the adhocracy [21], since its two most characteristic values are flexibility and external orientation [22]. This kind of attitude can be regarded as the innovation culture of an organisation. Innovative culture is considered in the literature to be one of the factors that can most stimulate innovative behaviour among all members of an organisation. First and foremost, it impacts the behaviour patterns of employees, increases their involvement and puts innovation at the forefront of company policy [23].

Additionally, the results of the research suggest that characteristics of adhocracy cultures which enhance innovation are: creativity [24], [25], empowerment [26], [27], freedom and autonomy [28], and risk taking [29]. Moreover, other authors claim that a culture supporting innovation

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engages behaviours that would value teamwork, be value seeking and solutions oriented, communicative, instill trust and respect, and be quick on the uptake in making decisions [30].

An innovation culture has been defined as a multi-dimensional concept which encompasses the intention to be innovative, the infrastructure to support innovation, operational level behaviours necessary to influence a market and value orientation, and the environment to implement innovation [31]. These elements have a two-fold influence on innovation. First, the process of socialisation allows employees to discover the fundamental values of their firm; and, second, the principles, procedures and strategies help firms to formally support innovation and creativity [32], [33].

The organizations differ in the extent to which they create innovation culture. It therefore is appropriate to conceptualize the innovation culture of an organization as one of degree, on a continuum, rather than as being either present or absent.

One of the dimensions of innovation culture is the innovation intension. It is the degree to which the organization has a formally established – within their business model - architecture to develop and sustain innovation. This would be communicated through vision, goals, objectives and operationalized through the business model and business process. The infrastructure to support innovation means degree to which the training, educational and cooperation opportunities of employees are aligned with innovation objectives. It is also amount of creativity that employees are allowed to express in their work. Additionally it assess the degree of empowerment held by employees. The environment to implement innovation involves the organization's ability to execute value-added ideas. It considers the ability to proactively co-align systems and processes with changes in the competitive environment [34].

The next of the dimensions of innovation culture is market orientation. It is an organizational culture that supports behaviors that dictate how employee's think and act as it relates to implementation of the marketing concept [35]. Key capabilities of a market orientation include such things as market sensing, customer linking, competitor sensing and customer service. A market-oriented culture is also foundational in supporting innovation [36], [37].

The cultural perspective of market orientation is described as an aspect of an organisation's culture, reflecting market-driving characteristics rather than market-driven [38], [39]. The term driving markets refers to changing the composition and/or roles of players in a market and/or the behavior of players in the market [40]. As such, there appears that organisations with a strong culture, especially an innovative culture, may question whether market-driven behaviours are the only way to achieve market success. Such organisations rather than being market-driven tend to be proactive and market-driving in their quest for superior organizational performance [41].

Innovative culture is internally-focused and competitive-advantage seeking, since it encourages openness to new ideas and cultivates internally-based capabilities to adopt new ideas, processes, or products successfully [42]. Market orientation reflects behavioural aspects of culture and is considered as knowledge-producing behaviours and an intangible resource leading to comparative advantage [43]-[45].

III. Methodology

The observed impact of organisational culture on the innovation performance of enterprises, and, even more importantly, the identification of a new type of innovation supporting culture [46], [47], have inspired many authors to further research into the subject. In order to enhance the innovative capability of an organisation, it is essential to promote the spirit of innovation among employees, and subsequently to provide consistent support to their ideas and initiatives [48]. This 'spirit' will be present in those organisations which ensure appropriate conditions, systems, management processes, leadership and mechanisms encouraging desired behaviour, employee constituency and customer focus [49]. It stems from the above that innovation culture is a multi-dimensional construct [50]. Multi-dimensional measures are certainly more consistent with a balanced organisational manifestation of innovation [51]. According to Dobni (2008) there are three dimensions to innovation culture: the intention to be innovative, the infrastructure to support innovation, operational level behaviors necessary to influence a market and value orientation, and the environment to implement innovation [52].

Therefore, the survey conducted by the authors of the present study intended: (i) to provide a description of the organisational culture of an innovative enterprise (in terms of the above-mentioned dimensions), and (ii) to investigate the diverse perceptions of this culture among company employees.

Gaia, the enterprise selected for the survey, is a lingerie producer, based in Białystok in North-Eastern Poland (Podlaskie Voivodeship). Lingerie production is a branch with a high level of technological and product innovation [53]. Moreover, the competitive position of firms from this sector largely depends on the qualifications and commitment of the personnel.

The analysed enterprise manufactures high quality women's underwear targeted at middle-to-low and middle-to-high market segments. Apart from co-operating with Polish retailers, the firm also exports to Europe (Czech Republic, Lithuania, Russia, Ukraine, Denmark, Finland and Greece), Asia and the USA (www.gaia.com.pl). Frequent changes in fashion make it imperative for the firm to maintain a market-oriented attitude. Besides, Gaia specialises in plus size lingerie. So far this market segment has been neglected as this customer group is fairly difficult to cater for. Finally, the studied company updates its products not only by introducing new designs, but also by employing modern technologies. It has launched the 'silver collection', which uses fabrics containing silver ions embedded in polymer fibre, thereby obtaining antibacterial protection (Trevira Bioactive® technology). Gaia has obtained ISO quality certification, as well as other certificates attesting to the company's integrity

and financial transparency [54].

The firm employs 120 persons, the vast majority of whom are women working in the capacity of tailors, sewing machine operators, corset-makers, designers and sewing technologists. A shortage of skilled workers, felt particularly in the peripheral regions of Poland, is hampering the growth of the lingerie industry. In Podlaskie Voivodeship, the problem has been further exacerbated by the fact that many vocational schools have ceased to exist. It was only three years ago that one of the city's secondary school extended its vocational offer by opening a class for clothing technicians specialising in lingerie. Experienced designers, however, are still in high demand. Because the business environment is undergoing constant changes and because the success of the final product closely depends on the experience and, frequently, on 'hidden' competencies of staff, it is the human resources that make a difference for companies from this sector, being either the greatest asset, or the greatest hindrance to development.

The aforementioned survey took the form of a questionnaire developed on the basis of the literature review but adjusted to Polish conditions. The questionnaire consisted of 39 items, which are structured according to the five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The items corresponded with the dimensions proposed by C.B. Dobni (2008).

TABLE I: DEMOGRAPHIC PROFILE OF RESPONDENTS

Sex	**In %**
female	95.3
male	4.7
Age	**In %**
<25	2.3
25-35	25.9
36-45	40.0
44-55	29.4
>56	2.3
Education	**In %**
compulsory	2.4
vocational	43.5
A levels	43.5
university degree	10.6
Type of contract	**In %**
indefinite term contract	71.4
fixed term contract	27.4
probationary contract	1.2
Seniority	**In %**
up to 3 years	11.3
4-8 years	35.0
9-13 years	37.5
14-18 years	12.5
more than 19 years	3.7
Position	**In %**
non-executive	77.6
executive	22.4

Source: Author's own research.

All of the staff members were asked to participate in the survey, but the questionnaires were completed and returned by 84 persons, that is 70% of those employed in the firm Gaia. The characteristics of the study sample are reported in Table I.

IV. DISCUSSION

The 39 items used in the survey were divided into 5 dimensions of innovation culture: innovation context (13 items), market orientation (3 items), infrastructure for innovation (6 items), employee creativity and empowerment (10 items) and intention to innovate (7 items). Cronbach's alpha for reliability, as well as the arithmetic mean, were calculated for each of the dimensions (Table II).

TABLE II: DIMENSIONS OF INNOVATION CULTURE IN THE GAIA

Dimensions	**Cronbach's alpha**	**Arithmetic mean**
Innovation context (13 items)	0.91	3.38
Market orientation (3 items)	0.76	3.53
Infrastructure for innovation (6 items)	0.80	3.06
Employee creativity and empowerment (10 items)	0.86	3.37
Intention to innovate (7 items)	0.81	3.38

Source: Author's own research.

Based on the respondents' answers, it was possible to create a preliminary profile of the innovation culture in the studied enterprise. The survey demonstrated that the members of that culture rely on knowledge gained from the market. It is the firm's customers who are the main providers of this knowledge, and thus an important resource for the company. They are an inspiration source, testers of new products and problem solvers. Gaia culture characterize market sensing, customer linking, competitor sensing and customer service. The employees go out with the initiative and try to change the market. This proactive orientation can be defined as market-driving.

As a result, the innovations implemented by Gaia are created as a response to market demand and closely follow the changing trends in fashion. The idea of innovation permeates the company culture, from strategic aims and objectives, through to tolerance of failure, and the autonomy and commitment of employees. As far as access to knowledge and information is concerned, the situation is not so good.

Next, the arithmetic mean was calculated for each item in order to determine the factors which most and least influenced the respondents' opinion of their firm's involvement in creating the innovation culture. The results of the survey showed that the culture of innovation in the studied company primarily depended on people, their creativity, attitude to work and to organisational changes, their awareness of the role they played in the firm, as well as empowerment (Table III). According to those surveyed, the employees were expected to be flexible and quick to adapt to changing circumstances (arithmetic mean: 3.96), be capable of creative thinking and acting in an innovative and unconventional manner (arithmetic mean: 3.61), all of the above being the key attributes of innovating firms. Besides, the respondents considered themselves creative (3.69) and open to changes (3.63). Other personnel-related factors of innovation culture in the analysed enterprise include: close ties among staff members (3.81) and management's trust in employees (3.79). The last group of factors is associated with the company's philosophy of

innovation, that is orientation on the market (3.64) and the ability to convert fresh ideas into profitable ventures (3.62).

TABLE III: ITEMS WITH HIGHEST ARITHMETIC MEAN

Statement	Mean
My firm expects employees to be flexible and adaptable to changes	**3.964**
The members of my department are a close-knit team.	**3.807**
My firm trusts that employees act in the firm's best interest, with minimum supervision on the part of the executive managers.	**3.795**
I consider myself to be an innovative and creative person.	**3.687**
My firm is prompt to respond to customers' suggestions and to competition by improving the quality of products.	**3.643**
I believe that uncertainty is an opportunity, not a risk.	**3.626**
My firm can convert ideas into profitable business results.	**3.619**
My firm expects staff to be creative, ingenious and innovative.	**3.614**

Source: Author's own research.

A number of organisational factors were identified as detrimental to innovation culture (Table IV). Most notably, the respondents stated that they had little opportunity to become involved in the firm's strategic planning process (2.70) and, consequently, had limited access to information on the strategic policies of the firm (2.98). Apart from that, they observed that the company did not provide its employees with sufficient opportunities to contribute innovative ideas and solutions (2.92). Finally, they claimed that employees were not willing to take any risky decisions (2.99).

TABLE IV: ITEMS WITH LOWEST ARITHMETIC MEAN

Statement	Mean
1. I am involved in my firm's strategic planning process.	**2.698795**
2. All employees receive equal treatment.	**2.891566**
3. My firm welcomes the ideas of all employees.	**2.915663**
4. Information on the firm's mission, objectives and principles regarding innovation are easily accessible to all employees.	**2.976190**
5. My firm's employees are ready to take risks.	**2.987952**

Source: Author's own research.

An indicator was identified in order to evaluate the perceived 'intensity' of innovation culture among particular groups of employees. Each respondent's scores on the 39 items were added, so the value of the indicator could range from 39 (lack of innovation culture) to 195 (advanced innovation culture). The studied company's indicator reached an average of 129.7, with 81 being the lowest score, whereas 179 – the highest. At this stage of research it is difficult to conclude whether this can be regarded as a high indicator or not, as no points of reference are available. When the same survey is conducted in other companies, it will be possible, by means of a comparative analysis, to determine the strength of the innovation element in the organisational culture of the firm. The calculated indicator allows one, however, to compare the propensity to innovate among particular employee groups. This relationship was analysed using single factor ANOVA.

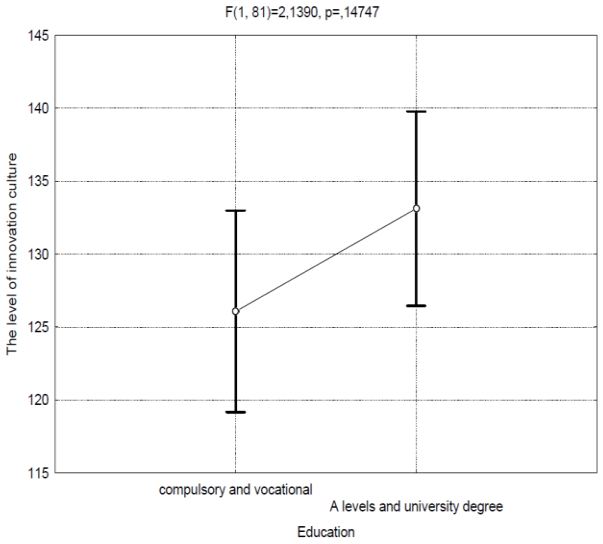

Fig. 1. One-factor ANOVA (95% confidence interval).

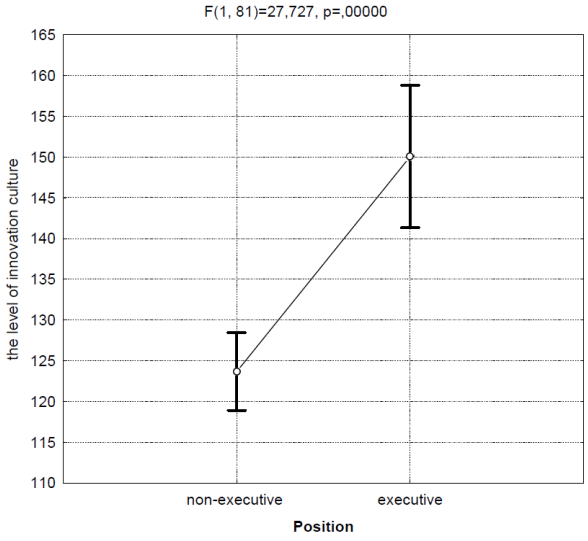

Fig. 2. One-factor ANOVA (95% confidence interval).

The obtained results revealed slight differences in the assessment of innovation culture between the less educated employees (with primary and vocational education) and those with high school and university education. However, the differences were statistically negligible (p=0.147). Among the former group, the innovation culture indicator stood at 126.07, and was below the overall average. Meanwhile, in the case of the latter group, it amounted to 132.12 (Fig. 1). Statistically negligible differences were also found in terms of respondents' age (although employees aged 35-46 were more inclined to see the firm's culture as innovation-oriented), and in terms of job seniority.

A statistically significant relationship can be demonstrated between persons in executive positions and other employees ($F(1, 81)=27,727$; $p=0,0000$, Fig. 2). For executive officers, the organisational culture of the company could definitely be regarded as one that is conducive to innovation (arithmetic mean: 150.5). Whereas non-executive staff saw the company culture as only moderately supportive to innovation (123.67).

V. Conclusion

To examine culture in isolation is a mistake, and to simply identify one type of culture and propose it as the panacea to an organisation's lack of innovation is to compound that mistake [55].

Organisational cultures can be oriented on many different values. Nevertheless, it seems that nowadays, innovation and creativity supporting business culture is the most effective factor of business success. Being multifaceted, the culture of innovation can vary from one firm to another. For instance, some companies can attach particular importance to modern infrastructure, while others prefer to rely on employee commitment. In Gaia – a Polish lingerie production company – the innovation culture is based on market orientation and customer focus. The findings provide the positive link between innovative culture and market orientation. Innovative-culture organisations are those that not only foster an improvement of infrastructure but also facilitate market-oriented behaviours. Gaia's customers are treated as a source of knowledge, inspiration and ideas. They also fulfill such roles as reviewers, product testers or brand ambassadors.

All the employees of Gaia are aware of the significance of innovation for the firm's development, whereas the organisational culture is permeated with the conviction that creativity and innovation should be promoted. There is, however, a dearth of practical solutions which could reinforce this atmosphere.

The survey results have also revealed that the 'spirit' of innovation is variously perceived by different groups of workers. The executive staff regard the firm as more pro-innovative than the other employees. Perhaps some of the initiatives aimed at fostering the culture of innovation are not made known to the frontline staff. Regular employees are also less often informed about the strategic planning goals or invited to participate in innovation processes. Although they see themselves as creative and ingenious, they complain about not always being allowed to contribute their own ideas for improvements. This appears to be an area which would benefit from organisational change.

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