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Information and Communication Systems in Pro-Innovation Companies

This article concentrates on questions of communications and information, whose role in the knowledge-based economy continues to grow. The efficient functioning of information channels translates into growth in innovativeness, where an improvement in the competitive position of the company occurs if there is cohesion between this and the organizational strategy, structure, and culture. The article presents the results of research into communication and information systems used in listed companies, with special stress on companies implementing a pro-innovation strategy.

Introduction

Modern times bring companies many challenges, highly dynamic changes in their environment, the need to react quickly to newly emerging customer needs, and the continuous development of modern technology. All force the organization to undertake far-reaching change in both the company's strategic objectives and in its structure and culture, the importance of which is constantly growing. The dominant view in topical literature is that subject to such changing market conditions, only companies that place their main stress on the permanent development of human resources will survive (Kozłowski, 2001; Mako, Illesy, Csizmadia, Kirov, Galev, 2008). The creation of an efficient team with competencies and knowledge that are unique on the market may bear fruit in innovative solutions that will guaranty the company a competitive advantage. Old, tried-and-true methods of managing both human resources and a company as a whole may prove far from sufficient in this day of the knowledge-based economy, or even ineffective. A key matter in the area of company strategy is the question of attracting and effectively managing knowledge, with a need to create conditions for the continuous development of worker competencies. The development of innovative solutions

will become possible when the knowledge accumulated in the company is continuously up-dated and expanded. Technology—bravely encroaching into the company—is providing assistance. The making of information circulation channels in the company broad and fully patent seems to be vital to any rapid reaction to change.

The position of the “new worker,” different than had been the case earlier, also finds its reflection in company structures. It is postulated that the worker be seen as a partner and co-manager of the company (Borkowska, 2007). It is for this reason that a significant flattening out of the hierarchy is seen within the structure. The structures of companies functioning on the global market, often undertaking transnational projects, are often not homogeneous, but note that the same person working in several project groups may simultaneously hold the position of manager, specialist, or simply operation worker. In such a case, the factor providing cohesion in the company, integrating the people it employs, is common purpose and common values promoted by the organizational culture.

The statement that developing innovation will only become possible when the mutual links among culture, strategy, and structure are strong is a truism. In order to meet this condition it seems necessary to guaranty an interference-free flow of information and good communications. E. Lawler (Konrad, 2006; Conger, Lawler, 2002) stresses that in order to develop a highly effective system of work it is vital to base management on four pillars. In addition to participation, the development and expansion of knowledge, and rewards for effects, he states the need for the creation of a current, and lucid information and communication system available to all workers. This makes possible the increased involvement of workers for the good of the organization. It fosters innovativeness and translates into an improvement in the competitive position of the company.

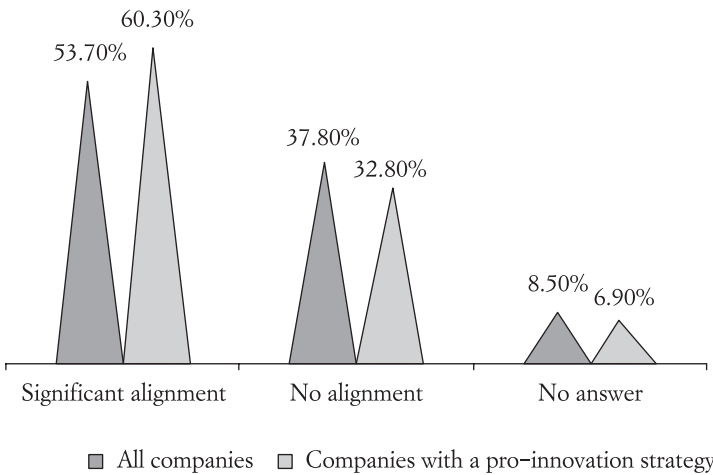
The results of research conducted in the year 2008 by the Institute of Labor and Social Studies on a group of eighty-three listed companies permits an attempt at analysis of the communication and information systems applied in leading companies functioning on the Polish market.¹ The purpose of this article is also to compare solutions implemented in this field by listed companies applying pro-innovation strategies with companies interested in other strategic goals.

1 A broader description of this study may be found in the article by S. Borkowska.

Communication and Information and the Strategic Targets of the Investigated Companies

The managerial staff of most of the examined companies is aware of the challenges facing their company. Over 79% of the listed companies consider the achievement of high innovativeness (in terms of products, processes, and management) a strategic objective. According to those interviewed, the company information system is usually fully aligned with the company strategy. However, this is more frequently the case in companies that are pro-innovation (compare Figure No. 1). The fact that just about a 40% share of the companies declare a lack of such alignment is a reason for concern. The fear in this case is that the effort put into the development of solutions intended to increase innovativeness will not be fully utilized. Workers may lack information regarding company objectives or the methods it intends to use to achieve them. These fears confirm results relating to the frequency and thematic scope of information provided to workers.

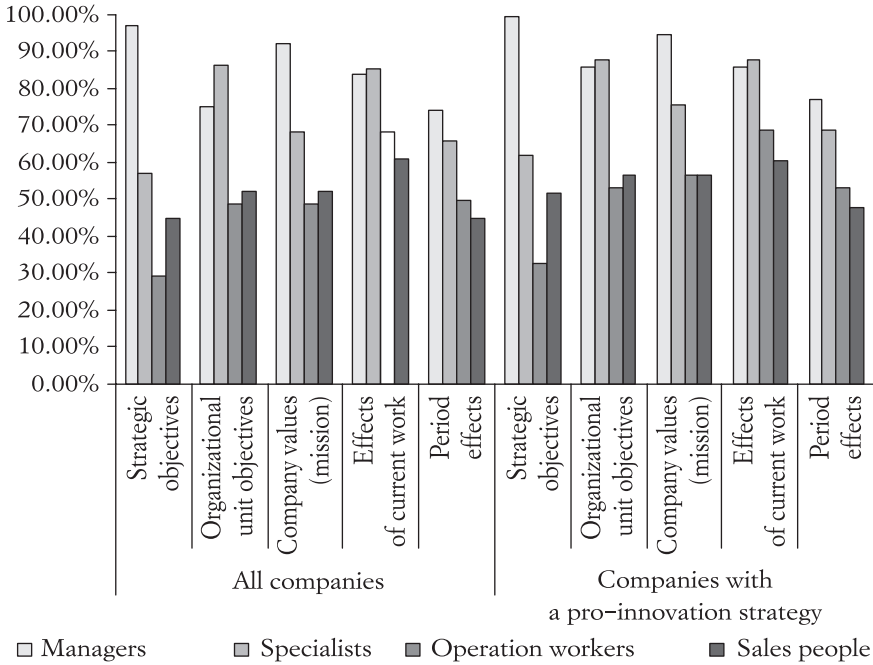
Figure No. 1. The Cohesiveness of the Information System and the Company’s Overall Strategy



Source: Own study.

Although people employed in companies implementing a pro-innovation strategy have greater knowledge about the company than in the other companies, the quality of communications with them continues to be far from ideal. Two professional groups—operation workers and sales people—are in a particularly difficult situation (compare with Figure No. 2).

Figure No. 2. What the Employees of the Investigated Companies Are Most Often Informed Of

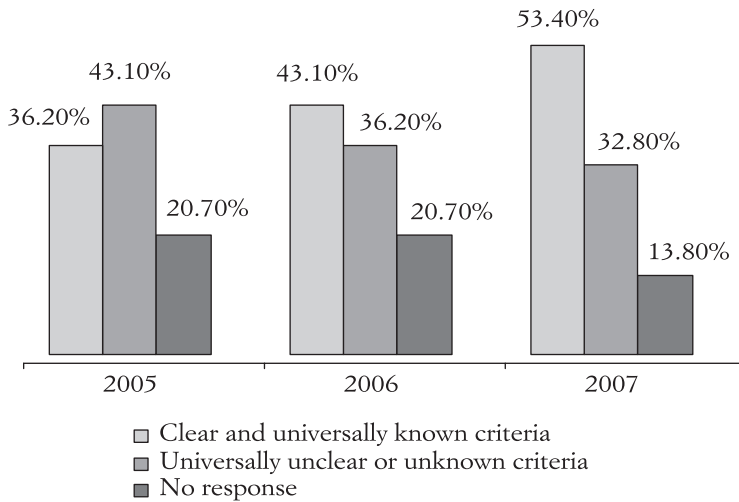


Source: Own study.

On average, every other person employed at these positions is not aware of both the company objective and that of his or her own department, and does not know the values promoted by the organizational culture. Any expectation that employees acting on the basis of very incomplete data will be strongly motivated and involved in developing novel solutions is an example of unjustified optimism. Managers and specialists are in a better situation. Their knowledge of the priorities of the company and its departments is continuously up-dated. However, a cause for concern is the low share (in all employee groups) of people who can count on feedback regarding the quality of their work. The results of periodic assessments are primarily forwarded to the managerial staff, but even in this group one in every four workers lacks a clear communiqué regarding the strengths and weaknesses of his or her own work. It seems justified to assume that workers deprived of such basic information will not have a tendency to introduce change and improvements in their methods of action as applied to date. This is all the more probable as in one-half of the investigated companies the criteria for advancement are not clear and a part of the employees do not know them at all (compare with Figure No. 3).

Such people can have the impression that advancement decisions of individuals are not coupled with work input or outcomes. This results in a passive, minimally creative stance on the part of employees. Worth stressing is the fact that the statistics of companies that do not implement a pro-innovation strategy are even more worrying. Comforting is the fact that over the past three years (2005–2007), the awareness of the weight of providing information relating to advancement principles as applied in the company has grown somewhat.

Figure No. 3. Level of Familiarity with and Clarity of Advancement Criteria in Companies with Pro-Innovation Strategies



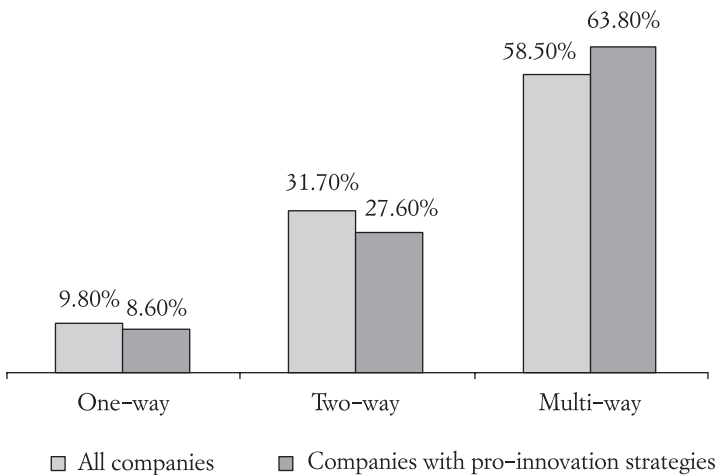
Source: Own studies.

Listed company managerial staff seems not to see the weak links functioning in their information and communication systems. The decided bulk of heads of human resource management departments rate their efficiency highly (81.2% in companies with pro-innovation strategies and 76.8% in the remaining organizations). The lack of awareness of gaps present in the information system may result in negative effects in the form of an absence of understanding or even a disdain for changes introduced in the company. In such a situation, use of even the most modern management tools will not bring about the desired effects. However, worth noting is the fact that listed companies are investing in information technology for management processes. A total of 63.8% of companies with pro-innovation strategies and 57.3% of all listed companies apply integrated information technology systems assisting company management.

Impact of Organizational Structure on the Quality of Communications and Information Circulation

In addition to the frequency and content of information provided to employees, the way in which this is accomplished is of no lesser importance. In traditional, highly hierarchized companies communications usually flow in only one direction: top-down. Reaching out for the opinions of people working on lower management levels is a rarity. The process of flattening organizational structure has been initiated in the examined companies. Communications run in many directions simultaneously—between direct superiors and subordinates and between employees in individual company departments employed at various positions (compare with Figure No. 4). Cases of communications based on commissioning tasks without leaving any field for discussion are very isolated among listed companies.

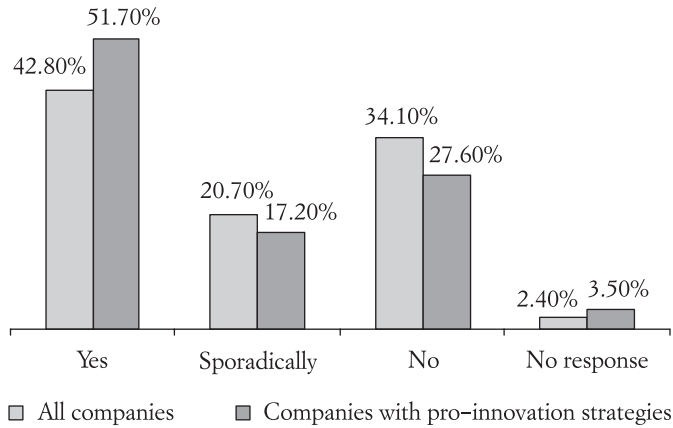
Figure No. 4. The Character of the Communication Process in the Examined Companies



Source: Own studies.

Unfortunately, this does not mean that the people employed in the examined companies are treated as partners. Systematic reaching out for employee opinions and research into their satisfaction is a frequent practice in only a little more than 40% of the listed companies (compare with Figure No. 5). Worth stressing is the fact that the view of employees carries significantly more weight in companies with a pro-innovation strategy.

Figure No. 5. Do Companies Conduct Employee Satisfaction Opinion Polls?



Source: Own studies.

Data collected by the ILSS demonstrate that the level of familiarity with the results of satisfaction studies among total employees is not high. Only in every third listed company conducting such analyses are the employees informed of their results (more often in companies with pro-innovation strategies – 44.8%). A possible impression is that such studies are only carried out on a *pro forma* basis and their results remain a secret of the managerial staff. This is not a fully justified view as in spite of the fact that communication with employees continues to leave much to be desired, conclusions flowing from satisfaction studies are used in over one-half of the investigated companies (56.1%) in order to improve human resource management practices.

Communication and Information Systems and Organizational Culture

The effective implementation of strategic objectives with a simultaneous increasingly broad incorporation of employees into decision processes will only be possible when supported by values and stances promoted by organizational culture. The efficiency of a company’s functioning is, to a great extent, dependent on the degree of advancement of the process of remodeling of culture in pro-innovation directions. Individual phases of this transformation are depicted in Table No. 1. In promoting the value of striving towards self-development, creativity, openness to change, collaboration, and sharing among employees, culture has an enormous impact on growth in involvement in work and in the company as well as in developing novel and unique solutions. Moving away from current management values and mechanisms can elicit fear among employees, especially in cultural circles characterized by a low tolerance for uncertainty, as

is the case in Poland (Hofstede, 2000). Employers, especially those concentrating on pro-innovation solutions, often invest in the development of openness to change taking place in the company itself and in its environment among employees when aware of this limitation. Data procured during the ILSS studies demonstrate that over 84.7% of companies provide training in this field. As is the case in questions discussed earlier, in this case the share was higher in the group applying a pro-innovation strategy, which amounted to 91.3%.

Table No. 1. The “Evolution” of Organizational Culture

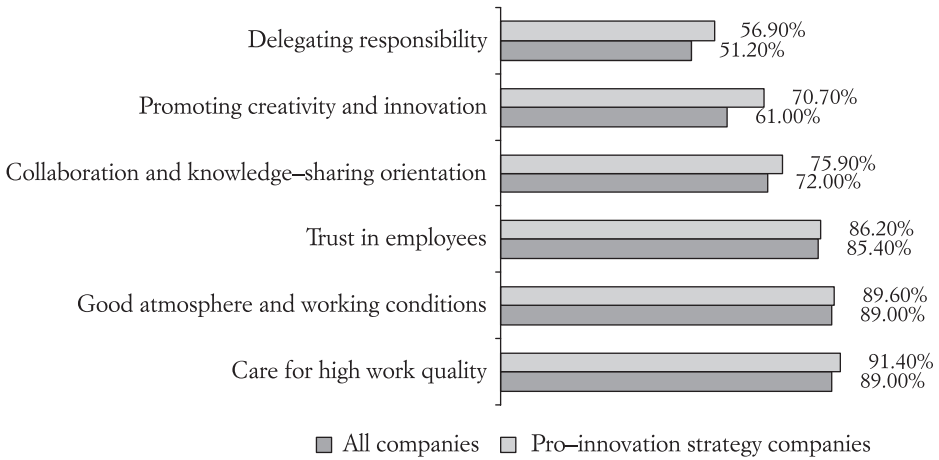
Area	Organizational Culture		
	Basic Level	Advanced Level	Innovative Culture
Management	Hierarchized system of orders and monitoring	Collaboration within the department	Self-governing teams
Information system	Transactional and centralized	Integration within the company	Learning
Action	Aimed at lowering costs and decreasing risk	Concentrating on productivity growth	Aimed at increasing collaboration
Approach to customer	Concentration on the product	Subdivision into segments, but continued concentration on the product	Individual customer needs and values
Strategy	Aimed at growth	Aimed at growth and effects	Innovative

Source: Developed on the basis of R. Angel (2006).

In analyzing the cultural qualities of the organizations being investigated, it is possible to get the impression that the process of their remodeling has been launched. However, the distance left to travel in order to mold an innovative culture remains long. Values such as promoting creativity, delegating responsibility, and sharing knowledge that are fundamental from the point of view of developing innovativeness are on lower positions in the entire hierarchy in the case of listed companies (compare with Figure No. 7).

The decided bulk of heads of human resource management departments in the examined companies declared that an atmosphere fostering the sharing of knowledge is emerging in their organizations (73.2% from among all companies and 75.9% from the group implementing a pro-innovation strategy). In some companies the employees are encouraged to transfer their experience to others by a system of special awards. The employees of 43.9% of the examined listed companies can count on such prizes, where

Figure No. 7. Main Qualities of Culture in the Examined Companies



Source: Own studies.

every other company (51.7%) has a pro-innovation strategy. The above data demonstrate utilization of the sleeping potential of human resources to an incomplete and insufficient extent in this day of the knowledge-based economy. The development of single individuals without a subsequent process of the transfer of this knowledge to other company employees cannot work to foster the rapid growth of innovativeness in the whole of the organization. The absence of mechanisms for managing information and knowledge is becoming particularly dangerous in a situation in which employees with the broadest competencies leave the organization. The filling in of the resultant gap may prove exceptionally difficult, if not impossible. Moreover, people employed in the company who demonstrate significant involvement usually cannot count on any support on the part of the organization in reconciling professional and personal life. Over three-quarters of the listed companies (including 72.4% with a pro-innovation strategy) do not apply any programs in the realm of work-life balance.

Final Remarks

A conclusion may be formulated on the basis of the presented research results, where the management boards of listed companies functioning in Poland see a need for far-reaching change that should take place in their organizations in the nearest future. They are also undertaking efforts at remodeling the structure and organizational culture so as to facilitate the implementation of a pro-innovation strategy. However, it seems that a part of the observed changes are not yet well grounded in the human resource management system. The impression is that they tend to be only on the surface, where the

information and communication systems supporting them are not sufficiently efficient. It should be stressed that organizations that have already undertaken implementation of a pro-innovation strategy have conducted more far-reaching changes, which makes possible the supposition that this is a permanent process that will bring tangible effects over the upcoming years.

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