

ROLE OF WORKERS IN THE PROCESS OF INNOVATION IMPLEMENTATION IN POLISH WOOD INDUSTRY COMPANIES

Izabela Nizialek

Warsaw University of Life Sciences, Faculty of Wood Technology, Poland

Corresponding author:

Izabela Nizialek

Warsaw University of Life Sciences

Faculty of Wood Technology

Nowoursynowska 166, 02-787 Warszawa, Poland

phone: (+48) 602-798-921

e-mail: izabela_nizialek@sggw.pl

Received: 10 February 2013

Accepted: 21 August 2013

ABSTRACT

Wood industry enterprises are an important branch of the Polish economy. More and more companies in this sector start to work on the basis of new technologies, standards and policies, such as the idea of sustainable development. An important factor that may accelerate the implementation of innovative solutions or their employees are slowing. Their commitment and belief in the validity of the changes will depend on whether the innovation desired effect. Article is to show the factors affecting the slow process of innovation in the company with particular emphasis on the role of workers.

KEYWORDS

innovation, wood sector, workers in wood sector.

Introduction

The current economic situation forces companies to seek newer and newer technology and engineering, in order to improve its products and services to meet the needs of consumers. In large enterprises and international companies, changes and innovations are included in the cost of the organization, whether in the form of numerous laboratory and cooperation with research institutions. The introduction of each innovation, or even minimal changes to an existing product or service involves the use of modern technology and techniques, and as a result, the high cost of their implementation by the company.

Another important problem is the staff, who often come up with a reluctance to put the changes and often are not willing to cooperate.

This paper attempts to identify the importance of employees in the implementation of innovation in small and medium enterprises of the wood sector in Poland.

The importance of innovation for organizations

The concept of innovation is the introduction of something new [1]. Innovation is a crucial component

for most firms in today's ever changing business environment. From the initial ignition of an innovation project, as well as over its journey overtime, ideas play an essential role [2]. The process of creating and developing ideas for innovation, commonly referred to as ideation, is therefore an important part of the innovation process [3]. Innovation is a social and interactive process in which collaboration and exchange of knowledge and information play crucial roles [4]. Another approach to the definition of innovation is presented by G.S. Altshuller. According to him, innovation is a complex phenomenon and a set of skills, a different way to organize, synthesize and express knowledge, perception of the world and the creation of new ideas, perspectives, and products of reaction. G.S. Altshuller saw in the innovations need to overlap the creative process and emphasized the relationship of innovation and creativity [5]. According to T. Szucki, innovation is an idea, a thing or action, due to a new qualitative difference from previous [5]. Innovations lead to innovative activities, which are projects financed by the Structural Funds, with which the European Commission intends to promote regional development strategies. These actions are aimed at increasing the competitiveness of regional economies through the use of

innovation. Innovative activity is a series of scientific (research), technical, organizational, financial and commercial (commercial) activities, whose purpose is the development and implementation of new or significantly improved products and processes [6]. The company, which implements innovations, is called an innovative company. This is an intelligent organization that generates and implements innovation. Such a company, due to the high level of modernity and competitiveness, is recognized among consumers [7].

It should be noted that the approach to innovation evolved and over the years. First of all, the pure scope of innovation types has broadened, shifting from focusing almost exclusively on product innovation to also include, for example, process-, service and business model innovation [8]. An important source of innovation in enterprises are the employees, especially management teams that generate the most creative solutions [9]. Transformational leaders display creative behaviour themselves, develop attractive visions of future states, emphasize change, empower team members, encourage their 'out-of-the-box' thinking [10], promote co-operation among team members, and strengthen team [11]. Innovation of this approach is also reflected in the acquisition of knowledge at both the individual and team [12]. Innovation aims to use the knowledge and experience of scientific research units for new products, services, technologies and innovative strategies that allow to attract new customers. Generating innovative solutions can be seen in two major areas:

- Institutions established for this purpose, such as business incubators, consulting, training or research institutions;
- Departments established in enterprises and aimed at introducing innovative solutions.

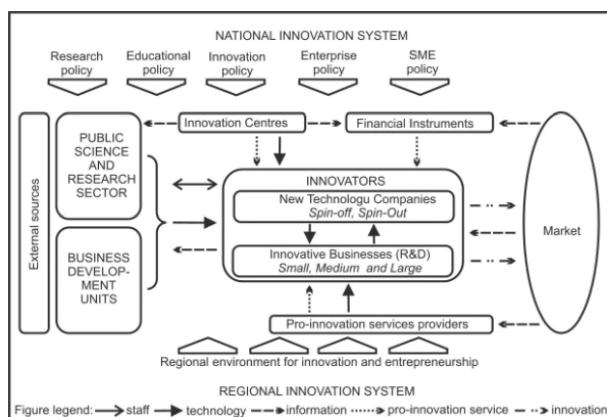


Fig. 1. The technology transfer and commercialization of knowledge.

The phenomenon of change and innovation is shown in Fig. 1.

The role of innovation in the wood industry

For several years, one can observe the dynamic changes taking place in all sectors of the Polish economy to improve not only the internal management functions but also to catch up with European standards. It is noteworthy that the activity of small and medium-sized enterprises in the implementation of innovative activities. SME sector due to the high costs of research are backed by some alteration by commissioning research institution, while larger companies have their own research centres.

Wood industry in Poland is one of the most dynamically developing sectors of our economy, it is important to introduce new solutions, especially technology in order to increase competitiveness and meet customer needs.

In 2011, the employees of SMEs carried out tests to check how the purpose of informing employees about the company affects the efficiency of employees. The study was conducted among a random sample of the wood sector companies in Silesia. The research was a pilot and was used as a prelude to a larger study the level of innovation and eco-innovation in small and medium enterprises of the wood sector in Poland [13].

The study was used to the current state of knowledge about the wood sector innovation conducted by E. Ratajczak [14], which showed that one form of innovation in the wood sector is the introduction of automated production processes. The analysis which has been carried out in this area showed an increase in the use of modern equipment placed on the production lines, as shown in Table 1. The biggest changes have occurred in the furniture industry (production of wood furniture), where the automation of production processes has increased by 45%. One of the reasons that affects such a large change in the process is the possibility of small and medium-sized enterprises for financing activities for the modernization of the European Funds.

Opportunities offered by innovation, not always are fully used. This situation has to do with barriers to both economic and social that may occur at the time of trying to make changes to make changes. Table 2 shows some of the main barriers to the implementation of innovative solutions in the wood industry.

Table 1
Barriers to innovation in the wood sector enterprises in 2004–2006.

Type of activity (Polish Classification of Activity)	Economic factors			Factors associated with the knowledge			Market factors	Other factors
	Lack of financial resources in the enterprise	Lack of financial resources from external sources	Too high innovation costs	Lack of qualified personnel	Lack of information on markets	Lack of information on technology		
Enterprises found the importance of a factor as "high" as a% of total business								
Manufacturing D	34.9	27.7	34.7	11.0	6.6	6.3	12.6	20.1
Manufacture 20 of wood and of products of wood	38.1	31.5	38.4	12.3	6.3	3.6	9.5	13.5
Manufacture 21 of pulp, paper and paper products	32.4	30.7	33.6	7.0	7.0	6.8	11.7	17.2
Manufacture 36 of furniture	34.8	25.1	32.8	13.9	8.3	7.9	12.3	18.9
							20.9	5.0
								10.9

Source: E. Ratajczak, Innovation of the wood sector in Poland, Poznań 2009.

Table 2
The flow of information across the enterprise (number of people).

Position	Employees are informed about the purposes of the company					Total
	1*	2	3	4	5	
management team	1	6	5	6	2	20
office worker	2	9	5	24	8	48
manual worker	2	6	3	16	4	31
Total	5	21	13	46	14	99

Legend*:

1 – very poor, 2 – poor, 3 – I have no opinion, 4 – good, 5 – very good.

The article focuses on the barriers to innovation resulting from the lack of knowledge about their employees. An innovation-oriented knowledge structure is a set of organization-wide shared beliefs and understandings that guide and direct “all organizational strategies and actions, including those embedded in the formal and informal systems, behaviours, competencies, and processes of the firm [15].

In this study attempted to determine the criteria relevant to adequately inform employees about the changes.

The first factor, blocking the implementation of the innovation process, is the flow of information. Therefore, it is important to ensure an adequate flow of information at all levels of the organization.

It can be observed that the highest percentage of people who rate the worst for information on the organization was noted in management, which should be preferably oriented. The attitude we take for the leaders will be an important element of innovation especially at the level of work teams.

The attitude of managers surveyed companies has not translated into changes to it and the lower-level employees who believe they have sufficient information on the activities of their workplace. It can therefore be concluded that the organizations surveyed did not create a relationship at all levels of the organization.

Supplementary question is the issue of the effective flow of information, which means the speed of running information for each employee and understandable way of transmitting (Table 3).

In the case of small and medium-sized enterprises of the wood sector is a problem of lack of organized knowledge in the field of Maintenance of people. This is mainly with the family nature of companies which mainly managed by individuals with owners. The problem is the employment of people with low skills, especially at the lower levels of the organization.

Table 3

The effectiveness of the flow of information in enterprises SMEs (number of people).

Position	The flow of information in company is effective					Total
	1*	2	3	4	5	
management team	1	5	3	9	2	20
office worker	3	10	4	22	9	48
manual worker	1	11	5	10	4	31
Total	5	26	12	41	15	99

Legend*:

1 – very poor, 2 – poor, 3 – I have no opinion, 4 – good, 5 – very good.

Implementation of innovation in organizations is mainly associated with the financial outlay for their implementation. Respondents surveyed by P.M. Simpson, suggest specifically that employee-related benefits of an innovation-oriented firm will include personal satisfaction, a proprietary interest in ideas, lower turnover rates, higher employee morale and enhanced productivity. In addition, respondents believe that employee satisfaction, recruitment of better employees, and increased salaries or bonuses from successful innovations will result. As examples, one respondent says, "Perhaps the most often overlooked benefit is that the members of the organization feel that there is a horizon of opportunity beyond their current activity and that generates a feeling of not only organizational affiliation but also a long-term commitment to the company", while a director of special development believes, "You'll have happier people; the happier they are, the more good ideas you'll have bubble up through the system. The more good ideas bubble up, the more successful you're going to be" [16].

In the case of the wood sector level of costs for new production lines often drawn only after a few years. Important innovations in the woodworking industry are also innovations in the field of ecology, such as the installation of filters reduce emissions of harmful substances into the atmosphere, or the construction of a treatment plant or water recycling systems. Innovations of this nature are non-refundable and are only necessary for the co-existence of the company in the local community.

Conclusion

Innovation in the wood industry is mainly large financial outlays, since these changes are of a technical nature or changes in fleet. Costs incurred in making changes at the furniture factory, wood processing often do not turn and if they are over a long period

of time. The process of innovation is often associated with a reduction in jobs or jobs which results in reduction of resistance by changes in workers because they are often poorly or not at all informed about the planned movement in enterprises. Such a policy-level information management in an organization causes resistance and lack of cooperation among employees.

Change in the approach of the owner/employer and the transition to the Organization of Effective Strategies, largely reduces fear and resentment among employees, prior to the introduction of innovation in the company. Effective organization is the transfer of responsibility for the operations of the company and the success of the implementation of the new solution in an organization.

References

- [1] Polish language dictionary.
- [2] Bass B.M., *Leadership and Performance beyond Expectations*, Free Press, New York, 1985.
- [3] Bass B.M., *Transformational Leadership: Industry, Military, and Educational Impact*, Lawrence Erlbaum Associates, Mahwah, NJ, 1998.
- [4] Björk Jennie, *Knowledge Domain Spanners in Ideation*, Journal creativity and innovation management, 17, 21, 1, 2012.
- [5] Szucki T., *Encyclopedia of marketing* [in Polish: *Encyklopedia marketingu*], Wyd. I, Agencja Wydawniczo Poligraficzna "Placet", Warszawa 1998.
- [6] Report on the state of science and technology in Poland 1999, [in Polish: *Raport o stanie nauki i techniki w Polsce*], GUS, Warszawa 2000.
- [7] Hemphälä J., Magnusson M., *Networks for Innovation – But What Networks and What Innovation?*, Creativity and Innovation Management, 21, 4, 3–16, 2012.
- [8] Crossan M.M., Apaydin M., *A Multi-Dimensional Framework of Organizational Innovation: A Systematic Review of the Literature*, Journal of Management Studies, 47, 1154–91, 2010.
- [9] Pirola-Merlo A., Mann L., *The Relationship between Individual Creativity and Team Creativity: Aggregating across People and Time*, Journal of Organizational Behavior, 25, 235–57, 2004.
- [10] Klink J., Roszko E., *Innovation – the essence and importance to the education market* [in Polish: *Innowacje – istota i znaczenie z punktu widzenia rynku edukacyjnego*], Long learning – the direction

Management and Production Engineering Review

- of the knowledge [Kształcenie ustawiczne – kierunek na wiedzę], Eduplus, 3, 3, 2010.
- [11] Schaubroeck J., Cha S.E., Lam S.S.K., *Embracing Transformational Leadership: Team Values and the Impact of Leader Behavior on Team Performance*, Journal of Applied Psychology, 92, 1020–30, 2007.
- [12] Matusiak K.B., Guliński J., *The technology transfer and commercialization of knowledge in Poland – driving forces and barriers* [in Polish: Transfer technologii i komercjalizacji wiedzy w Polsce – siły napędowe i bariery], PARP, Poznań-Łódź-Wrocław, Warszawa, p. 11, 2010.
- [13] Ratajczak E., *Innovation of the wood sector in Poland*, p. 82, Poznań 2009.
- [14] Siguaw Judy A., Simpson Penny M., Enz Cathy A., *Conceptualizing innovation orientation: A framework for study and integration of innovation research*, J. Prod. Innov. Manage., 23, 556–74, 2006.
- [15] Simpson Penny M., Siguaw Judy A., Enz Cathy A., *Innovation orientation outcomes: The good and the bad*, Journal of Business Research, 59, 1133–1141, 2006.