Prospering in a Global Market: Organizational Learning in an Economy in Transition

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Abstract

Organizational learning is essential to companies in former socialist countries that are transforming from centrally planned economies to market economies for the following reasons: globalization, changing business environment and continuous technological changes necessitate quick reaction by business leaders. Drawing on the experiences of a rubber company in Slovenia we explore how organizational learning helped the company to survive dramatic political and economic changes and manage to establish successfully itself in a global market. This case study also demonstrates how the use of computer-based information systems is central to organizational learning.

Keywords

Organizational learning, IT-supported organizational learning, organizational strategies, economic transformation, market economy, globalization.

INTRODUCTION

Organizational learning in Western industrial companies is the focus of intense interest (Argyris 1992; DeGeus 1997; DiBella 1995; Fiol and Lyles 1985; Lipshitz, et al. 1996; Macdonald 1996; Nevis, et al., 1995; Senge 1990; Stata 1989; Wishart et al., 1996). The importance of organizational learning, however, is not limited to companies located in Western industrialized countries. Indeed, it is essential to companies that seek to survive in countries that are transforming from socialist (typically centrally planned) economies to free market economies an individual leaves the company his knowledge remains behind as organizational learning.

Organizational learning in Western industrialized countries, which occurs primarily in response to globalizations, market changes, new technologies and governmental regulations, takes place within the context of familiar free market economic conditions. In much of former socialist countries now in transition towards a market economy, the necessity for organizations to learn is more urgent and requires more radical change. While organizational learning in Western companies may be seen as an evolving process, organizational learning in companies from the former socialist countries, faced with fundamental changes in their political and economic environments, seems to require a different approach. This paper investigates how Sava, a Slovenian rubber company, restructured and changed into a learning organization.

The remainder of the paper comprises five sections. Section 2 introduces organizational learning concepts. Section 3 describes the research method. Section 4 analyzes organizational learning at the Sava Company. Section 5 analyzes and discusses the role of IT in organizational learning. Finally, section 6 contains what has been learned and offers concluding remarks.

ORGANIZATIONAL LEARNING

Before exploring Sava’s organizational learning experiences it is necessary to define this concept. Huber (1996, p. 821) defines organizational learning as follows:

“An organization learns when, through its processing of information, it increases the probability that its future actions will lead to improved performance.”
Argyris (1992, p. 8-12) claims that organizational learning takes place when such organizations receive information that they achieve or fail to achieve their goals. Based on this information organizations can engage in learning at different levels (Snell and Clark, 1998) (Figure 1). Single loop learning implies that the organization takes corrective action when a company’s results deviate from its predetermined goal. Information in this case contributes to the company’s knowledge and competency base without altering present objectives and goals, mental maps or strategies. Alternatively, an organization may question its meaning-making and goal-seeking systems and engage in double loop learning, resulting in changed mental maps, governing norms, policies and desired goals (which Argyris refers to as ‘governing variables’). Furthermore, organizations can learn how to learn and invent new structures and strategies to learn which is called deutoer or triple loop learning.

The essential ingredient in organizational learning is then rich and accurate information concerning an organization’s outcomes, goals and how well these are met (Figure 1), which in turn requires that information acquisition focus on wide range of both internal and external considerations.

Internally focused information concerns the company’s vision, problems in acquisition, production, control and distribution processes and their mutual interaction, and the company’s interaction with employees, etcetera (e.g., Sava’s internally focused information as presented in Table 1). Externally focused information concerns the company’s interactions with its customers, suppliers, shareholders, partners, competitors, labor market, and educational institutions (Sava’s externally focused information is presented in Table 1). For any organization dedicated to learning one of the essential problems is how to acquire, organize and store information so as to support learning. In order to learn organizations must put in place information systems that enable scanning of the internal and external environments.

![Diagram of single, double and triple-loop learning](image-url)

**Figure 1. Single, double and triple-loop learning (Snell and Chak, 1998)**

Information from such information systems are interpreted, systematized, and codified into organizational practices and procedures, which form the basis of organizational learning (Mills and Friesen 1992; Rudolf 1997). Because learning organizations are committed to continuous learning and learning renewal, the lessons learned then motivate further environmental scanning for new information.
### Table 1 - Internally and Externally Focused Events

<table>
<thead>
<tr>
<th>Internal Events</th>
<th>External Events</th>
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<td>&quot;…[Employees] are responsible for company success and failure… assume responsibility for personal, departmental, and organizational development… assume responsibility for the quality of work, the team's work, and the company's work.&quot;</td>
<td>&quot;We decided to shop around for a new joint venture partner.&quot;</td>
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<tr>
<td>&quot;…Stimulating employee innovations is a most important responsibility… Systematically encourage people to engage in learning processes… Every employee has to complete a set number of hours on educational activities.&quot;</td>
<td>&quot;…promising opportunities for manufacturing rubber transmission components, conveyor belts, and components for building and automotive components.&quot;</td>
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<td>&quot;[The new] e-mail system will profoundly affect communication… Employees will be better informed [and] this will act as a stimulus to seek additional information… There is a definite relation between IT and more effective communication.&quot;</td>
<td>&quot;…parts purchasing, bill of materials preparation, warehousing, and distribution. [Our] electronic data interchange system will integrate these operations.&quot;</td>
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The traditional emphasis in information acquisition, though, has been on internal data. The concern is with operating and financial efficiencies as measured by cost accounting procedures. Successful long-term strategy, however, requires that the field of emphasis be broadened considerably.

Huber (1996) points out that the increasing effectiveness of information technologies, in particular communication and computing techniques has resulted in greater environmental complexity and environmental uncertainty. To cope with these trends organizations have a greater need for organizational learning. Huber (1996) further shows that organizational learning greatly depends on the storing and distributing of theoretical and experiential information. Thus, paradoxically, even though the need for organizational learning arises indirectly from the ever-increasing effectiveness of information technologies, it is precisely these technologies
that make organizational learning possible. In short, what technology makes necessary it also makes possible, that is to say, first and second loop learning.

Sava’s need for restructuring arose from profound changes in political and economic conditions. The political events during the early 1990s led to the loss of Sava’s traditional rubber tire market in the republics that formed the former Socialist Republic of Yugoslavia, where Sava occupied a virtual monopoly position. High demand for its tires coupled with existing import fees and barriers had ensured the Company a comfortable existence in its home. While Sava had limited export to some European countries, it relied primarily on its domestic market. As Slovenia seceded from the former Yugoslavia, its companies lost their domestic market. Together with many other companies, Sava needed to focus its efforts on Western European, and Central and Eastern European tire markets where it faced stiff competition.

New markets demanded the introduction of a new management style that focused on productivity and product quality, which in turn led to an emphasis on organizational learning throughout the company. This paper focuses on the role played by IT in enabling and expediting Sava’s organizational learning. The results of our study provide insight into competitive issues faced by companies operating in economies in transition and suggest how these challenges may be successfully overcome through IT-based organizational learning.

RESEARCH METHOD

Because understanding and interpreting human action is key to our project, an interview-based interpretive research method suited our purpose best (Antill, 1985; Cavaye, 1996; Klein and Myers, 1999). We collected data in the form of on-site audio taped interviews with company senior and middle managers, and workers. We also obtained data in the form of company documents and annual reports.

Sava is a large manufacturer of rubber products located in the City of Kranj, Slovenia. Slovenia was the most economically developed republic of the former Yugoslavia. Like other Slovenian companies, Sava was forced to develop an international market strategy. Mr. Bohoric, Sava’s president commented:

“Today there are fewer than ten players in the worldwide [tire] market...We concluded that it would be [unwise] to attack this market on our own...We decided to shop around [for a joint venture partner].

We just completed a new joint venture arrangement with Goodyear, an American company.”

Car tires are Sava’s most important products comprising 75% of the company’s annual sales. Second in importance are bicycle, moped, and scooter tires that account for 6% of the company’s annual sales.

The company is governed by an executive board consisting of five people - a president of the board, vice-presidents for finance, accounting and information systems, manufacturing, and research and development, and a worker director who represents the interests of Sava employees at board meetings. Second line managers govern production, profit centers, business services, trade, and utilities. Although Sava’s managerial structures are presently hierarchical, line managers are quite independent in their decision-making.

To enhance the communicative capabilities of operational and managerial workers, information technology is being used in the form of a company-wide electronic mail system. The computer environment consists of one large mainframe with three to four hundred PCs that serve the informational and communicative needs of managerial, technical and operational personnel. The company intends to serve the communicative needs of all its employees by making E-mail accessible throughout the organization, including the company’s shop floor.

Top management is also quite concerned with the company’s logistics. Presently the logistics function is not well developed - parts purchasing, bill of materials preparation, warehousing, and distribution all take place independently. The E-mail system in conjunction with a planned electronic data interchange (EDI) system will integrate the aforementioned operations

Customer satisfaction, according to Mr. Bohoric, means “The customer returns, not the product.” Sava tries to ensure customer satisfaction by conducting regular meetings with major customers during new product development. As Sava’s president stated:

“...we have regular meetings with our most important customers...[we] invite them to share, to participate [in the] creation of our products.”

Furthermore, many of Sava’s products are components in the production processes of other companies. In these cases as well Sava engineers are in regular contact with the customer and this constant communication better ensures customer satisfaction.
ORGANIZATIONAL LEARNING AT THE SAVA COMPANY

Drucker (1997) stated that a company’s organizational learning draws on two streams of information that provide insights into events that occur internally or externally to the firm. Internal events refer to a company’s vision, its employee relations, its views on employee learning, and its policies pertaining to employee communication. External events involve the company’s relations with customers, suppliers, market, educational institutions, and competitors (Table 1, Figures 1 and 2).

Internal Events

Mr. Bohoric (1997) underscored the importance of the employees’ role to the company’s successful entry into the Western European automobile tire market. He referred to the employee handbook (1997) that describes the need for and the way of reporting employee innovative ideas:

“Among us there are many people who have a fresh…idea on how to improve his…work. The proposal for an innovation can be…made public with a form called “registration of a proposal for an improvement or innovation.” This proposal must include…the title of the proposal…for improvement, machine equipment; work place…and personal data of the employee or worker who proposed this improvement”

Because of these strongly held beliefs, employees are briefed extensively when first hired by the Sava Company and given a copy of Sava’s Employee Handbook (1997). Table 1 illustrates several insightful extracts from this handbook:

“[Employees] are responsible for [the] company’s success or failure…and assume responsibility for personal, departmental, and organizational development…and for] the quality of personal, the team’s, and the company’s work.”

Concerning employee learning, the Director of Human Resources mentioned the courses that are taught by her department which emphasize organizational culture, general and interpersonal communication skills, teamwork skills, and managerial skills. Furthermore, individual learning is central to the concept of organizational learning and the above illustrates that the company’s top management takes it seriously. President of the Board of Directors stated (Bohoric, 1997):

“Stimulating [employee] innovation is one of our most important responsibilities. I think that---delegation of responsibility itself helps develop creativity and stimulates people to be innovative. We systematically [encourage] people to be involved in different learning processes. Each Sava employee has to complete a certain number of hours per year of educational activities.”

The above are but a few instances of the company’s internal flow of information. Interviews with the Company’s president and the human resource manager record many more such examples.

External Events

The need for effective and efficient capturing external information has gained currency at Sava. For example the company’s president states:

“…Our people [should] know foreign languages…[80%] of our products [is] exported…they [employees] have to know German and English.”

Yet a different form of organizational learning inspired by external events arises from the company’s relations with its customers and competitors (Table 1States the President (1997):

“…Many of our products are raw materials for other companies...Our engineers are in [continuous] contact with [the customer]...We invite the customer to share ...participate in the creation [and] development of our products...we have many meetings [with customers]...Organized by region [and] sometimes by product.”

Furthermore, data on competitors forms an important component of external information flows. Concerning competitors the President (1997) commented:

“…The most important element of [organizational] learning is in our benchmarking [program]...We do our best to [find out] what others [i.e., our competitors] are making. Our competitors run fast...We have to measure...[Then] we run with them...If possible run faster...We now [can get] this information because of our joint ventures with other companies.”
The President expanded on the organizational learning just discussed by stating that the information arising from alliances such as the joint venture with the Goodyear rubber companies enables the Sava Company to successfully restructure its operations. Thus, for example, external information made possible through alliances ensures that Sava can more successfully scan the market for new products such as rubber skirts for containing environmental spills (Table 1). How managing external information flows are supported by IT is discussed in Section 5.

DISCUSSION

The company’s IT department is directed by a chief information officer who sits on the executive board. According to our informants Sava had several reasons for a joint venture with Good Year among which were access to US markets, expertise, and IT. The company now uses IT to support all its standard management functions - accounting, finance, marketing, production, and logistics. Central to Sava’s IT system is an IBM PS 9000 mainframe computer, twelve separate servers that are platforms for a total of three to four hundred PCs. Sava is currently acquiring Oracle’s data base system, it plans to introduce Oracle’s Tools and Oracle’s Office, and the company is investigating the use of Lotus Notes.

Concerning the progress of Sava’s informatization progress the president noted:

“We have brought electronic mail…to all parts [of the company]. We have not yet installed it to all parts of the factory…but we will do [that]. Eliminate paper as much as possible. For example, between Good Year and Sava we exchange a lot of tactical [information] and electronic mail…does this faster.”

Existing and future IT-based information systems are primarily directed at first loop learning. That is to say, employees and management are better informed and are seeking information in order to achieve goals. This orientation will continue into the future. The Sava Company, however, is also interested in second loop learning. An illustrative example is an IT-enabled organizational learning project in the form of an internal campaign entitled “A Thousand Ideas for a Better Tomorrow.”

Employees throughout the company are encouraged to participate in this campaign. Members of top management are particularly interested in suggestions from production workers and operational management. The president stated:

“The proposals are sometimes very simple but no one had seen it before - how to save material or energy [during production], make some machine run more efficiently, and how to improve product quality. [Ideas] that lower costs, improve product quality, increase productivity, or enhance environmental protection, are welcome.”

The IT department proposed, designed, and implemented a computer-based information system for capturing, storing, and evaluating proposals in terms of their technical and economic feasibility. This information system enables classifying proposals by name of the originator, name of the department of origin, type of the technology involved, cost of implementation, economic benefit, and other factors.

To adequately support company-wide communication Sava, as mentioned in the quote, introduced an E-Mail system. The company plans to discontinue the box-based manual system of idea submission and replace it by an E-Mail-based idea submission system. The president explained:

![Figure 2 Internal and External Information Flows](image-url)
“IT plays a big role...with it communication among individuals is on a more [sophisticated] level...[Employees] are better informed...This is a stimulus [for] seeking still more information and [so] to be a better informed employee...I see a [definite] relation between IT and the better informed employee.”

The submitted proposals are concerned not only improving existing processes of production, purchasing, marketing, transportation and the like, but also raised more fundamental issues of Company’s preparedness to keep pace with competition, to achieve and sustain competitive advantage and the need to increase its knowledge and competency base. We identified many attempts by employees to question existing policies and ‘mental maps’ and propose new ways of thinking and framing problems and new policies and goals. We, however, have not seen examples of IT-supported third loop learning as yet.

The aforementioned cases illustrate that Sava has adopted information systems for supporting 1) the company’s day-to-day operations and management activities, thus assisting in single loop learning, and 2) to stimulate and explicitly focus on organizational learning (single and double loop). Furthermore, in recent years the company made important strides toward informing functions that directly impact the company’s aim to improve its operations and market position through IT-based organizational learning.

Figure 2 shows that organizational learning is enabled by flows of information about events that occur internally and externally to the company (Drucker, 1997). The company has embraced IT to support organizational learning because it makes possible efficient and effective information collection, dissemination, and interpretation. In short, organizational learning is a top management policy and is guided by the information delivered in the proper format by IT systems.

CONCLUSION

This case demonstrates that organizational learning is needed especially for companies located in former socialist countries. In the case of Sava, IT-supported increases in complexities and environmental uncertainties were made more pressing by vast economic, political, and ideological factors arising from the change from a protected, socialist economy to market economy and the exposure to global markets. In response to the aforementioned pressures Sava embarked on an extensive organizational transformation that was accompanied by a company-wide commitment to IT-supported organizational learning.

Of particular practical importance are the lessons learned from Sava’s experience that, we believe, are useful to any company facing competition on a global scale, and especially companies from former socialist countries. First, upon scanning and analyzing its business environment Sava’s management recognized a need to become a global player. To accomplish this goal Sava’s management concluded that a joint venture with one of its larger rivals would help getting access to the global market, to marketing information, to logistical experience, and to IT. Second, Sava’s management put in place an extensive organizational learning program so as to extract full advantage from the relationship with its former rival. The organizational learning strategy includes both single and double loop learning which has been supported and enabled by a dedicated IT-based system (apart from more general support from functional information systems). While Sava’s successful transition to fundamentally changed economic and political environments and its excellent performance in new markets, can be attributed to its competent and innovative management, our findings show that its organisational learning practices (supported and enabled by IT) have played a significant role.

REFERENCES


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