

Nikola Radivojević¹
*High Technical School of Professional Studies,
Kragujevac*
Nikola Ćurčić²
*University Union -Nikola Tesla, Faculty of Management,
Sremski Karlovci*
Željko Dević³
High Economic school of professional studies Peć in Leposavić

ORIGINAL SCIENTIFIC ARTICLE
doi:10.5937/ekonomika1601023R
Received: December 15, 2015
Accepted: February 9, 2016

IMPLEMENTATION OF THE MODEL OF “TRANSFORMATIONAL MANAGERIAL COMPETENCES” IN THE PROCESS OF RESTRUCTURING OF „ZASTAVA MACHINES A.D.“, KRAGUJEVAC

Abstract

Management of changes in the process of transformation of the company is one of the most important challenges faced by the entrepreneurial management. In the contemporary theory of organization and management, the model of “Transformational managerial competencies” is singled out and established as an effective instrument in the process of transformation of the organization. The aim of this paper is to illustrate in detail the theoretical basis of the model, as well as to present its implementation on a specific case. Implementation of the model is illustrated at the example of the company „Zastava Machines A.D.“ Kragujevac, as to present to local public the organisational and managerial competencies which are necessary if the organisation strives to effectively undertake the process of transformation, as well as to emphasize the relationship between the ability of management to understand the necessary competencies and to master them on the one hand, and the successful restructuring of the company, on the other hand.

Key words: *Changes, transformational competencies, leadership, restructuring*

JEL Classification: M2, M310

ИМПЛЕМЕНТАЦИЈА МОДЕЛА „ТРАНСФОРМАЦИОНИХ МЕНАџЕРСКИХ КОМПЕТЕНЦИЈА“ У ПРОЦЕСУ ПРЕСТРУКТУРИРАЊА „ЗАСТАВА МАШИНА, А.Д.“, КРАГУЈЕВАЦ

Апстракт

Управљање променама у процесу трансформације предузећа је један од најзначајнијих изазова са којим се суочава менаџмент предузећа. У

¹ radivojevic034@gmail.com

² nikolavcurcic@yahoo.com

³ zeljko.dv@open.telekom.rs

савременој теорији организације и менаџменту се издвојио и у пракси афирмисао модел «Трансформационе менаџерске компетенције», као ефикасан инструмент у процесу трансформације организације. Циљ овог рада јесте да се детаљно прикажу теоријске основе модела, као и да се представи његова имплементација на конкретном примеру. Примена модела је приказана на примеру предузећа «Застава Машина А.Д.», Крагујевац, како би се домаћој јавности указало које су то организационе и менаџерске компетенције потребне ако организација настоји ефикасно да прође процес трансформације, као и да се укаже на везу између способности менаџмента да разуме неопходне компетенције и да овлада са њима, са једне и успешног реструктурирања предузећа, са друге стране.

Кључне речи: *Промене, трансформационе компетенције, лидерство, реструктурирање.*

Introduction

Gaining competitive advantages and adequate strategic leverage is the imperative of any organization. As to achieve this multiple objective, organizations are trying to develop their “winning formula” for success. As of the moment it occurs, it becomes firmly embedded ownership of the company, forming the basic organizational values and cultural imperatives. It requires the presence of capability in every element of a value chain. Unfortunately, it is almost always timely limited and becomes obsolete under the influence of various factors. It is precisely these factors that impose transformational imperative. The one that is most present is the factor of technological change, because many organizations, but not all, form value in a manner that is primarily defined through the exploitation of technology. That’s why business transformation has become a central challenge of modern enterprise management.

Various transformational processes through which the company adjusts to the dynamic environment are becoming the backbone of change management. However, certain “transformational competences” are essential in order to successfully implement these processes. In the contemporary theory of organization and management, the model of “transformational managerial competence” is singled out and affirmed in practice as a reliable instrument in the process of transformation of the organization. This model represents an analytical framework that identifies five organizational and managerial competencies which are necessary to make the organization successfully implement the restructuring process.

Under the influence of internal and external factors, in economies with developed capital, i.e. market and market institutions, restructuring of enterprises is the process that takes place continually. It is an expression of the aspirations for harmonization of conditions of their own economic activity with the changing market conditions and requirements of the environment, with the aim to achieve economic goals more efficiently and effectively. Unfortunately, the undertakings of such activities in our companies are not reflections of such tendencies, but the only remaining way to respond to the pressure of acute crisis in

which the enterprises found themselves. Good example of the fact that our companies recognize the necessity of continuous transformations in order to improve and maintain their competitive position is the company “Zastava machines” - Kragujevac.

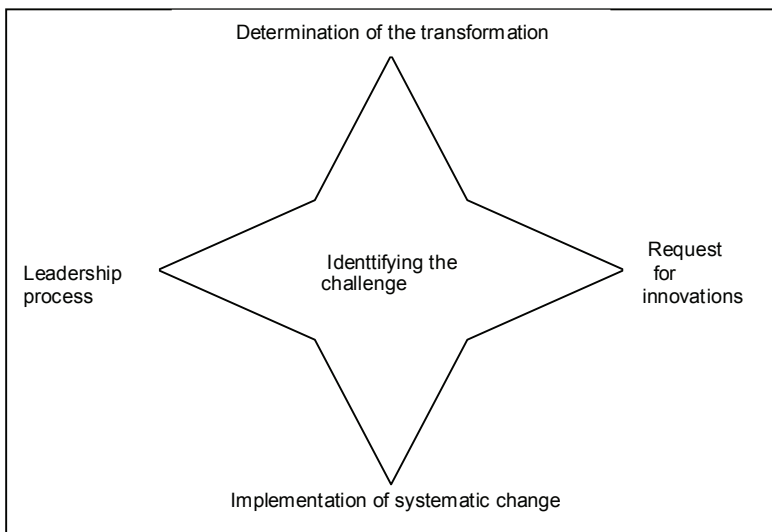
Therefore, the aim of this paper is to show the model of “Transformation managerial competence” in the specific case in order to show the local public which organizational and managerial competencies are needed if the organization strives to successfully undergo a process of transformation, as well as to show the relationship between the ability of management to understand these necessary competencies and master them and the successful restructuring of the company.

The Model of “Transformational managerial competences”

Many models for the implementation of the organizational change process have been developed in literature. Among them, so-called model of “transformational managerial competences” stands out with its popularity, due to its efficiency as well as simplicity of implementation. A model represents an analytical framework that identifies five key organizational and managerial competences to be taken into consideration, as well as their joint action in order to effectively carry out the process of transformation.

The model is presented in the form of stars with four arms, where each arm represents one ability, and there is an essential ability in the centre – identifying areas, scope and demands of challenges.

Figure 1: The Model of „Transformational managerial competences“



Resource: Francis, D., Bessant, J., Hodbay, M., (2005), *Managing radical organisational transformation*, Academic Press, New York, pp.18-29

Competences are described in detail in the continuation of the paper.

Identifying the challenge

When organizations are faced with a strategic dilemma, “we are in the wrong place,” the essential difficulties that arise from the very start of the process of transformation are (Francis, D., Bessant, J., Hodbay, M., 2005, pp. 18-29):

- Avoiding: People in organizations (especially in teams in the top position) cannot accept the fact that their tried and tested ways of doing business have become incorrect. They avoid, “the world has changed, and we have not”;
- Hesitancy: even if the need for a change is understandable, no one knows the best strategic direction to follow. Consequently, organizations can be divided into warring camps, fighting for leadership position;
- Poverty: Companies usually realize that they need radical reform just when their finances are in poor condition, but it’s too late then, because there is less possibility for reinvestment, which leads to the effect known in our literature as the “domino effect”. Consequently, the company is brought in the area of disability, and such companies are being taken over or liquidated;
- Insularity: individuals into power in the organization are those whose life experience consists in what is now to be destroyed. It often happens that those who should be leaders of the transformation process are the least trained for it;
- Incapacity: managers who have spent years managing organizations in stable conditions often do not have the right skills for transformational change.

The authors of this model have defined these challenges as “barriers before action”. Overcoming these “barriers before action” can be very difficult. Research of Francis et. al (2005), Basol (2004) and Andriopoulus et. al (2002) have shown that “traumatic events”, such as the arrival of a new Director General with different perspectives, lead to re-conceptualization of threats and opportunities. When it comes to the realization that the current business does not provide capital and development potential, the company enters into a collective state of uncertainty (Francis, D., Bessant, J., Hodbay, M., 2005, p. 30). It knows that the change is needed, but does not know what kind of change? Some change their core business; others exercise rejuvenation, the third increase interest in innovation, etc. The proposal for the implementation of the transformation process can be also a result of exploitation of business opportunities, not only a threat (the example is ICI-Zeneca, see Francis et. al (2005)). This is a good example that visions and radical strategies can occur in response to events that cannot be planned in advance with the predictions and in detail. What is important for success is that there is a high level of awareness regarding the necessity of changes and in the manner of their implementation, among the actors whose decisions create the future of the organization.

The process of gathering strength for change is basically a political process. The imperative is to create a powerful coalition that will accept the need for a “new order”. It is necessary to choose the key agents of changes that will actively support the process of finding a new identity of the organization. There must be a “driving force” that will guide changes.

The process of leadership

Research shows that the key to management of successful changes of the transition process lies in capability of leaders to overcome resistance. Namely, the organizational changes dramatically increase the degree of uncertainty and may generate in anxiety and fear among the majority of members of the organization, which in the context of organizational changes means the resistance to their implementation. The most important thing for leaders in change management is to turn the factors “against” into factors “for”. Therefore, the successful implementation of changes requires the action of leaders in both planes, therefore, in the level of those forces which are oriented to the changes, which can be achieved by creating awareness of their necessity and urgency, as well as in the level of forces that resist change, which is achieved by striving to maximally reduce their resistance (Stojanović-Aleksić, V., 2006).

The ways of manifesting the resistance are numerous: from those whose form is the direct attempt to prevent the change by undertaking the obstructive activities to those passive forms which negate the need of changes’ implementation. But regardless of the form and the manner of manifestation, it is primarily important to note that the resistance is a usual phenomenon that monitors all aspects of changes, so they should be seen as a natural and inevitable phenomenon. The resistance of members of organizations represent a strong challenge and a significant barrier to initiating changes and their successful implementation; however, they should not be seen solely as a threat, but also as a source of significant energy that can be transformed and redirected towards support for changes. Therefore, a successful leader is expected to recognize them, identify their causes and consequently adapt the behaviour and choose an adequate strategy of amortization the resistance to change. According to Stojanovic-Aleksic (2006) strategies available to the leader are: participation, support and assistance strategy, negotiations and agreements strategy, manipulation and co-optation strategy and strategy of direct coercion. Of course, these approaches must be adapted to the nature and causes of resistance to changes and incorporated (explicit/implicit) into the plan of transformational process

This requires strength and subtlety of leadership which is thought to be rare. This suggests that the process of leadership should be contextually flexible and able to cope with the paradox (there is a time when one should be open to the advice of others, but also the time to stop to listen to them and make a decision by his/her own).

The conclusion that emerges is that leaders must be both soft and hard, and that they need to know when to take a certain attitude. In other words, the successful discontinuity and transformation management requires effective leadership. We have learned from the literature that strong leadership can lead to spectacular behaviour and spectacular success. Research of Radivojevic (2006), William (2005), Rouse and Boff (2003) and Zenger (2002) have shown that the main risk in the implementation of the transformation is the selection of “wrong people” for the position of a leader. Managers need to develop themselves and adopt values which promote a courageous and radical change.

The implementation of systematic change

Organizations may take the initiative in relation to the discontinuity - that means they can actively try to create those changes, thus “rewrite the rules of the competitive match”.

Studies have shown that smallest companies have a need to develop a strategic orientation and routines that will help them to cope not only with the “steady-state” of innovation, but also with a discontinuous innovation at the same time (Moutinho1, R., et. al., 2015). This often requires changes in many parts of the organization, i.e. systemic changes.

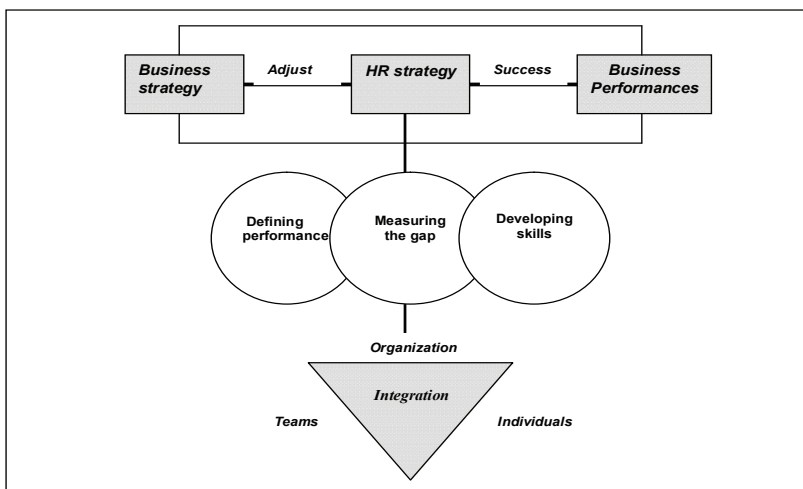
One of the key demands is a significant improvement of organizational capacities, which will be opened to signals from the outside and ready to learn “outside the box”. Studies of radical changes (Radivojevic (2006), William (2005) and Zenger (2002)) show that multiple new ways of working are required and that their application is incompatible with the operations carried out in a company from day to day.

As a consequence, there is often a tension between the groups that are in the process of radical changes. The solution may lie in separation of a radical and stable group. New divisions must happen; otherwise the frustrated staff with entrepreneurial skills will leave the company in order to establish their own in which they will implement their radical visions. Key features are necessary for activities such as monitoring the environment in order to detect signals that will encourage innovation, implementation of application projects, coordination of different knowledge, skills, etc (Radivojević, N., et. al., 2007).

In an effort to implement changes in a systematic and planned manner, numerous models that provide recommendations on how to successfully implement organizational transformation have been developed. One of the popular models for transformation of the organization, which follows the trend of development of enterprises business on the basis of Information Technology and relies on certain principles is called business model (Radivojević, N., et. al., 2007). It arises from the necessity to find an answer how to generate the values for a company, customers and partners, and represents a mixture of three flows (value for partners and customers flow, revenue flow and logistic flow) that are crucial to successful business.

Another model that attracts attention with its comprehensiveness and thoroughness is the model “Determining the gap & development of capabilities” (Figure 2).

Figure 2: Model „ Determining the gap & development of capabilities “



Source: Keen, P., Qureshi, S., (2006), Organizational transformation through Business Model, *Proceeding of 39th Hawaii International Conference of System Sciences*.

Selection of transformational strategy

Studies of Francis et. al. (2005), William (2005) and Barnes and Bessant (2001) show that there are generic transformational strategies, four of which has been identified so far: value flow reconfiguration, redefinition of the driving forces of business, reconstruction of business competencies and redefining the proposal in relation to the existing and/or a new consumer:

1. The reconfiguration of the value flow - means the creation of major changes in the positioning of the company within the network of suppliers, partners and/or distribution. For example, companies can develop their suppliers or distribution in a way that they will find new ways of supplying or repositioning within the value flow. This strategy may offer three key advantages. Firstly, it provides the activities to be carried out at the lowest prices because there is the selection of the cheapest suppliers (until their prices are the lowest). Second, the value flow can be created in a way that it is inherently agile - sources can be activated, reconfigured or deactivated in a relatively easy way, so that customers are always offered with what is worth for them. Finally, the possibility of perceiving the system as a whole makes it possible to decipher and fix the inefficient connections.
2. Redefinition of the driving forces of business - strategic organizational driving force is selected formulas for value creation. This may be changed, even though the risk of adopting new strategic driving force is high if the organization has to leave even a part of what it is already familiar with and to enter into the sphere of the unknown and uncertain. In stable conditions organization routine puts accumulated knowledge in a capsule and eliminates the need for new learning in situations that are repeated. Reviewing its strategic driving force, organizations need to make innovations within its mission, political power, social, technological or market opportunities and to adopt new business models. In the search for new forces, previous beneficial routines can become rigid and a kind of barrier and are often very resistant to changes.
3. Reconstruction of business competences - already developed business competencies are a good support for the efficient and effective resolution of existing problems. From the strategic perspective, they are significant because they provide opportunities for learning and acquiring new skills in dealing with new situations. By acquiring new competencies, a company is able to do things that it has not been dealing with earlier.
4. Redefining the value of the proposal in relation to existing and/or a new customer - companies that are familiar with the requirements of their customers have the advantage, because knowledge of the needs of consumers provides a form of learning that can be applied to offers making, so that the desires and needs of consumers affect the work of organizations.

However, focusing only on existing customers can blind decision-makers in companies, because they do not have to be the leading consumers. Hence, it is necessary to develop a study of potential and/or leading consumers. Such approach creates

opportunities for the development of products/services, taking into consideration the whole potential market, not only the current one in which the company operates. For this reason the research of business space becomes a key strategy and demands the ability of retention the existing and attracting new customers, while the creating and maintaining the organization in a condition to be able to recognize signals (threats and opportunities) that cause relevant innovations and the appropriately respond, represents the biggest challenge for strategic management.

Request for innovations

Most innovations are introduced in the field of established pattern of capabilities that is usually accompanied by a sort of “technological trajectories” (Keeney, B., 1983, p. 213, Miletic, et al. 2012, p. 60). When it comes to that, the change is possible in a greater or lesser extent, but the overall narrowness of the conditions remains relatively stable (e.g. bicycle frame suffered countless innovations, but it still remained unchanged). In contrast, study of Francis et. al (2005) shows that innovations in the field of glass production have led to the transformation of the whole industry. This is a good example showing that innovation of “different kind” set a new dominant design - the new path for the development and the new model on which the innovation can be carried out.

The road travelled on a company’s success in innovation it is not easy to cross, especially in companies that face significant problems. Studies have shown that companies are often faced with the following difficulties (Salami, R., Soltanzadeh, J., 2012, pp. 211-226):

1. Failure to observe: failure to recognize the need for innovation. This can happen either due to isolation of the key signals from the environment or due to the fact that basic skills have become what Leonard Barto calls “axis of stiffness”;
2. Inadequate innovation: recognizing the need for innovation, but answering it in a way that strategically weakly corresponds to business. Companies are introducing changes, but they cannot support them due to the lack of experience or ability. Another usual problem is the adoption of innovation as a result of fashion, and not due to a clear strategic need;
3. Episodic innovations: recognizing needs, but only occasionally, so that after a strong effort to introduction of innovations there is a period of inactivity;
4. Emphasizing a moderate state of innovations: There is a need for continuous development of innovations but the objective of the innovation is not the process of transformation, but the improvement of existing processes.

Discontinuous innovation process is qualitatively different from the approach described above, and is oriented towards the improvement. These forms of innovation have a high probability to provide the opportunity for transformational changes. However, a comprehensive approach to continuous innovations can have a radical effect. Key differences between continuous and discontinuous innovation, according to Francis et. al. and Michelson (2008) are the following:

1. positive/negative impact of discontinuous innovations is higher;
2. discontinuous innovations require the destruction of attitudes that are cocooned;

3. discontinuous innovation requires entry into the psychological space of unknown and uncertain;
4. the element of risk is greater;
5. there is the probability to be a plenty of tests and difficulties,
6. specific skills are needed

From this assessment it is evident that a tendency for discontinuous innovation somehow represents a strategy by itself. Several factors can cause the opportunity for creation of discontinuity. They can, in extreme cases, lead to restructuring of the industry or to the great deterioration in the ability for value creation of the company itself. A great opportunity as well as a threat requires the company to consider some form of reconfiguration (one of the 4 strategies).

Implementation of the model of “transformational managerial competences” in the process of restructuring the company “Zastava machines, AD”, Kragujevac

Identifying the challenge

Today’s Social Enterprise “Zastava Machines, AD”, Kragujevac is a direct descendant of the former company the Institute “Crvena Zastava” Kragujevac. Namely, it all started back in 1853 with the establishment of the first industrial company in Serbia, called “Topolivnica”. After a series of organizational transformations of the Institute “Crvena Zastava”, fostering its own development and a tradition of 150 years, the company “Zastava machines” has grown into one of the leaders in our region for the production and repair of machine tools, mining equipment, equipment and parts for resistance welding and steel mills, confectionery industry and the rubber and non-metal industry.

Due to significant reduction in capacity use within metal-processing industry as well as to the majority of companies from the Zastava Group for which purposes the company mainly worked, nowadays a special attention is paid to the program diversification and to productive engagement of available resources in development and implementation of new programs and products.

Due to the need to respond to developments in the business environment, in terms of strengthening pressures to achieve and “surpass” business standards imposed by reinforcing competition, increased fussiness of customers and legal regulations, the company became aware of the necessity of implementation of rapid, systematic and comprehensive changes. Therefore it defined its strategy of restructuring in response to the identified challenge of the environment manifested in the form of threat. Defined strategy meant redefining business philosophy, mission, mental map, organizational structure and rearrangement of market and technological portfolio.

The main challenge that the company “Zastava machines” is facing is growing competition in the field of production of machinery for the confectionery industry. Despite the fact that this is an attractive market, with relatively stable demand, especially after

the ownership and organizational transformations of our companies in the confectionery industry, the company has decided to withdraw from that market. The reason for this lies in the fact that competitors offer higher quality products at lower cost, and the lack of financial resources for the innovation of its products and a commitment to develop those products for which the company has a competitive advantage, caused the company to eliminate this group of products from its production program.

Application of leadership process

The agent of changes was a strategic peak of the company. The effectiveness of enterprise transformation conditioned by many factors but primarily the working collective, or its mental map and a readiness to maximally engage themselves in the implementation of changes.

The degree of their engagement in that process depends on a number of factors that are manifested both in the form of barriers, as well as in the form of stimulus. In amortization of resistance, the management started from the fact that the resistances are inevitable and that it would be wrong to deny their existence. Closing the eyes and escape from the problems are not a strategy that will contribute to their solution. One of the common mistakes made by the leaders relates to the expectation that the resistance will be shown only by those who are directly threatened by changes and are afraid of losing something (status, work, power, etc.). It is true that the fear of personal loss is the most significant and the most common cause of resistance, but one should not overlook the fact that the human psyche and motivation mechanisms are very complex and influenced by many factors. An interesting observation is that the resistance may come from those who could make profit after the changes. In this case it is avoided by careful treatment of all individuals in the company.

In conversation with employees it was found that the main reason for not accepting the changes was emotional in nature - fear of job loss. Realizing the importance of understanding the necessity and urgency for changes, by its employees, in providing support for the restructuring of the enterprise, the management tried to persuade employees in correctness of their actions through persuasion and explanation of its decision. In addition, the process involved all individuals, in accordance with their experience and skills, while the surplus of workforce was solved by mutual termination of the employment contract. Thus was solved the dilemma the company faced on that occasion - how to perform the reduction of the number of workers in the most fair way to workers who lose their jobs. This automatically had the positive effect on those who remained - they returned a sense of security. This created the work environment that stimulatory acted on individuals, and the management received support for changes implementation. A significant contribution for this was certainly given by the changed leadership style that was now primarily focused on individuals.

The implementation of systematic change

By analyzing their business environment through the prism of their own strengths and weaknesses, as well as opportunities and threats that appear on the market, the

company has recognized the necessity of rapid and comprehensive changes. In order to use the identified opportunities and amortize the threats, the company has defined the strategy of restructuring, which means redefining business philosophy, mission, mental map, organizational structure and rearrangement of market and technology portfolio.

Firstly it carried out the definition of vision and mission - meeting the needs of clients by offering more quality products at lower cost and faster than others, while preserving the traditions, increasing the inherited reputation and transferring of gained experience to future generations of employees. Then they defined the objectives of the company and ways of achieving them. The main objective is the increase of retention rate and retention of existing market participation in markets where the company remains.

Starting from Porter's generic strategies it can be concluded that the company "Zastava machines" follows the strategy of differentiation, whereby the differentiation is the ability of a company to deliver products whose quality is at the level of excellence. Specificity of quality differentiation strategy implemented by the company "Zastava machines" in relation to the competitive strategies of differentiation lies in the following:

1. Differentiation in terms of properties - the result of a unique technical and mechanical treatment of the materials from which the product is made;
2. The attributes of durability and reliability in extreme operating conditions – the result of a distinctive way of designing products and work technology.

The first step in preparing the organization for the realization of the vision and implementation of the set strategy was the elimination of anomalies of the previous organizational structure. This has been achieved by its redesigning:

1. According to previous organization, marketing and sales were at the level of directorate and under the direction of sales manager. The consequence of this situation was the predominance of short-term sales results over the long-term orientation of marketing in the context of developing creative solutions to meet future needs. Marketing is now at the level of the directorate, while the sale is at the sector level within the marketing directorate.
2. Reducing complexity which was achieved by eliminating the middle managerial level. Given that it is a single production in which the products are produced according to specific customer requirements, experience and ideas of the first line of workers are essential for the outcome of the work process. By such subordination (drive leadership is under the direct control of the production manager) the transfer of ideas and information among the workers is easier and faster.

This organizational design has enabled:

1. the transfer of ideas, information is faster and in all directions;
2. the establishment of intimate and informal relationships between members of the organization;
3. creation of a climate in which employees compete who will present more ideas in terms of innovation

Structuring the work collective was based on the principle of optimal completing of current and planned future tasks with minimal strain of the staff. Quantitatively, qualitatively and timing harmonization structure of employees with the requirements

of tasks was achieved on these premises. The problem of working force surplus was successfully solved by mutual termination of the employment contract. The dilemma the company faced on that occasion was how to reduce the number of workers in the best possible way for workers who lose their jobs, but also how to retain the loyalty of those who remain and provide them with a sense of security.

Market restructuring in the case of “Zastava machines” company is based on maintaining the existing markets and preserving the acquired market share within them. This attitude is based on the fact that existing markets have rather stable demand and that competitive relationships between them have already been established. Compared to the competition the company has a defensive stance, aimed at preserving its strong power, which in combination with the previously mentioned leads to the consolidation strategy.

Many companies are facing a problem to integrate technology into the process of strategic management. The reason for this is the lack of understanding of the strategic potential of the technology factor. In addition, a large number of conceptual frameworks for the development of business strategy is still based on the marketing, production or organizational factors. Bearing in mind the importance of technologies for achieving the competitive advantage with one hand, and the scope and the growing importance of technological progress and changes on the other hand, technological restructuring is becoming one of the most important ways to adapt the company to changes in the environment. Within the company “Zastava machines” technological restructuring is aimed at the modernization of existing technology and increasing the participation of computer guided machines.

The selection of transformational strategy - Redefining the value of the proposal

Analyzing the ruling market structure in which the company operates (identifying the model described with notions) it has realized the necessity of redefining the value of the proposal in relation to beneficiaries. Based on the analysis of competitive environment it can be concluded with certainty that the company operates in monopolistic competition conditions. For success on such a market it is essential to properly manage the price. Namely, price interval occurs at the market. The reason for this lies in the fact that manufacturers differentiate their offerings to customers. Customers notice these differences and they are willing to pay different prices for them. Therefore, in redefinition of the marketing mix a special attention is paid to the manner of price formation.

Production program consists of six product lines, namely: 1) machine tools; 2) mining equipment; 3) equipment for resistance welding; 4) special purpose machines; 5) machines for confectionery industry and 6) machinery for rubber industry and non-metals. Each line includes a larger number of products types and their number is theoretically unlimited, as almost all of them are built according to the customer’s specification. Such a system of production for known buyer automatically means that there is no stock of finished products. The company offers two types of services as well: 1) Overhaul and revitalization of machine tools and mining equipment and 2) gearing services.

The analysis of products in the context of the life cycle concludes the following:

1. The most important products for the company are in the stage of maturity; mining equipment (A) and machine tools (B) (participate in the total income

with over 80%). Given that these two groups of products are at this stage, and bearing in mind their importance to businesses, scenario that predicts the transition from a phase of maturity into a phase of new growth has been developed. The scenario is based on a change in conception in the production and exploitation of effects of experience curve, resulting in a lower cost/price and better quality. Therefore, for these products is determined the strategy of *leadership in costs*. Also, at this stage there are products from the product groups: machinery for the confectionery industry (C), machinery for rubber and non-metal industry (D) and the overhaul, rehabilitation and gearing services (E).

2. In the growth phase there is the gravel transporter (F).
3. In the introduction phase there is innovated reducer (G)

The company will continue to implement a strategy of differentiation for these two products. Given that the company is equipped with machines whose maximum technical characteristics allow the processing of large dimensions, the possibility of introducing services of grinding of large dimensions, grinding of slide surfaces and services of keyways broaching are actively taken into consideration.

In order to lead a balanced policy of cash flows, it is necessary to make a portfolio analysis. The first step is to determine the percentage participation of certain groups of products and services in the revenue (Table 1).

Table 1. Percentage share of products/services income

| Product-services | Market participation |
|---|-----------------------------|
| A Mining equipment | 57,8% |
| B Machine tools | 23,7% |
| C Machines for the confectionery industry | 1,5% |
| D Machines for rubber and non-metal industry | 0,5% |
| E Services | 8,4% |
| F Gravel transporter | 5,2% |
| H Reducer | 2,9% |

Source: Internal report of the „Zastava Mašina, A.D.“ - Kagujevac, 2011

On the basis of these data it is possible to position products in the BCG matrix. Note that the size of the circle represents the percentage of participation in the income of a particular product. Assessment of the relative market share is left to subjective assessment of analysts and management in “Zastava machines”. Also, the rate of market growth is evaluated on the same principles.

The analysis of portfolio matrix clearly shows that mining equipment and machine tools have a very good position, considering that they are in the “cash cow” field which means that they are good generators of cash. Candidates for the elimination of the product range are the groups of products labelled as: machinery for the tire industry and non-metal (C) and machines for the confectionery industry (D). The reasons for their

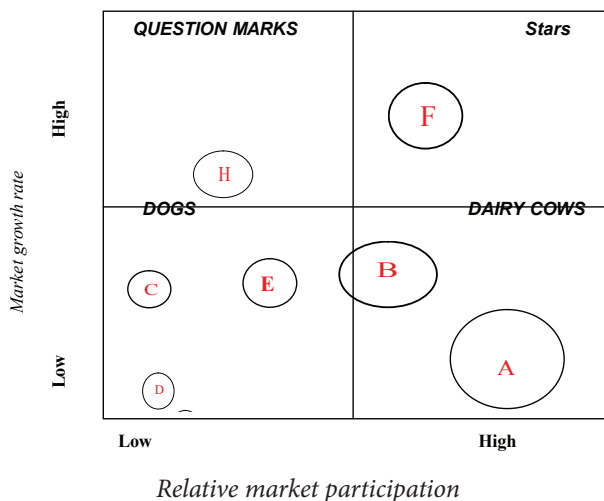
elimination are in the fact that they have a small profit contribution to the company; they are not exported, and require large investments in order to remain competitive. Even though the services that the company offers are located in this quadrant, their elimination is not taken into consideration for two reasons:

1. *Strategic* - revitalization and overhaul services are the basis for product differentiation, as they are an integral part of the product;
2. It is considered that modification of gearing services (in addition to the services of keyways broaching) will improve market position.

When reducing the product range it would be necessary to conceive the dynamics of elimination of labelled products, so to take into account certain requirements that go in the direction of not disrupting the business of its customers and maintaining good relationship with them. It was achieved by the timely information of former and current clients about the products elimination, so that they could adapt to the new situation timely and by and giving a specific deadline within which they could make their order of products which would be eliminated.

The result of the measures proposed in the restructuring of the production program is reflected in the reallocation of funds from the products (C) and (D) into the development of a reducer, in order to increase its market share and moving to quadrant “star”. Also, a part of the funds will be directed at strengthening the marketing efforts of gravel transporter, in order to investigate and find new buyers as to maintain the high level of participation and achieve a transition to “dairy cows”. At the same time, it enables greater management commitment to products that remain, but also the changes in the structure of total revenues in the direction of increasing exports, with the expectation that the surplus capacity arising from the reduction will be used in the increase of income level.

Figure 3: Portfolio analysis of the production program of “Zastava Machines”



Source: The Authors

A matrix which is based on two variables was used as an analytical tool for review of the validity of decision to reduce a manufacturing program. The first variable relates to the work force and it is determined by parameters: marketing, production, market share, brand image, quality and the like. The second relates to the attractiveness of the industry and is determined by: market size, growth rate, the structure of competition, barriers to entry, etc.

Figure 4: Review of a decision on reduction of production program

| | | | | |
|---------------------------------------|---------------|---------------------------|-------------------------------------|-----------------------------------|
| <i>Work strength</i> | high | Selectivity A | Selective growth | Investment and growth F |
| | medium | Disinvestment | B Selectivity E | Selective growth |
| | low | Disinvestment D | C Disinvestment | H Selectivity |
| | | low | medium | high |
| Attractiveness of the industry | | | | |

Source: The Authors

Based on the matrix shown, it can be concluded that the decision on the reduction of the production program is justified. Proposal of measures for the reduction of the production program is consistent with the strategies suggested in the framework of individual fields in the matrix above.

Bearing in mind the governing structure of the market, one can easily realize the importance of proper management of pricing strategies. The market consists of many buyers and sellers engaged in transactions in the interval price. The reason for the occurrence of interval price lies in the fact that vendors differentiate their offer to customers who recognize the differences and are willing to pay different prices for them. Company “Zastava Machines” consistently implements the strategy of differentiation, which is reflected in the confidence, perseverance and product properties. Hence, the company forms the price based on the customer’s perceived value, while the price is at the level of perceived value. Observed from the aspect of these two factors, cost – effective, the company implements the strategy of premium and high-value strategy.

For products that are located at the stage of maturity, it was decided the price to be below the customer’s perceived value, but without compromising quality. This provides customers with a very good value, and in order to preserve/strengthen the competitive

position. At the same time, this will initiate new purchases of these products. The strategy “removing cream” is used for the formation of prices for gravel transporter, considering that it is a really new product. This method of price forming has enabled the company to relatively quickly cover the IR costs and create the image of a superior product. However, as competition develops and the market is becoming saturated (product has passed the stage of introduction), reduction of prices is recommended as to appeal to a wider market.

The company uses two methods to distribute their products. In domestic market, the sale is made directly to a known buyer. At the international, basic forms of export marketing are applied:

1. Direct export – independent appearance on foreign markets;
2. Indirect export - export is done through specialized companies from Belgrade or via foreign intermediaries.

The intensity of distribution is low, which means that the number of intermediaries for one territory is small (usually one). This gives exclusivity to intermediaries, which is reflected in their negotiating power in relation to the users, but also in relation to the company. Given that the company carries out the most of the export through intermediaries, redesign of distribution channels is aimed at eliminating intermediaries and establishing direct sales on the route enterprise - users. Such redesign of distribution channels will allow direct access to the largest companies, enhance the rating of the company in relation to its competitors, obtain the status of a major supplier and increase the profit, as bypassing of intermediaries in the distribution channel will avoid payment of their commission.

Participation in the events of market considerations that gather customers, vendors and competitors at one place, is the most important element of the current promotion strategy. For many years the company is a regular participant in the most important fairs in the country and abroad in the fields relating to the manufacture of machine, confectionery machines and mining equipment, or are directly linked to these fields. Another elements of the promotional mix are petty propaganda materials that include a variety of brochures, agendas and calendars with the company logo, folders, etc. which are usually given to guests, visitors and partners of the company. Considerable attention is paid to word of mouth advertising as the strongest, but to a free form of advertising at the same time.

In order to 1) increase market share; 2) strengthen company image and 3) strengthen goodwill in relations with the community, it is planned to take certain activities which will improve the promotion and advertising of the company:

1. Modification and modernization of the identity of the company - many years of economic decline and collapse of the reputation of the Institute “Crvena Zvezda” reflected on all companies of Zastava group. Hence, modification and modernization of existing identity is necessary, but without losing the essential recognition. The first step in this is the creation of a logo with the original preliminary design.
2. Creation of conditions and training marketing people to be engaged in propaganda - the solution is institutionalization of propaganda function within the Directorate of marketing or its separation outside of the company through contracts signing with specialized agencies in this area.

3. The usage of interactive media - after making a logo comes the development of web site of the company that will be dynamic (Flash version) with the possibility of online sales and promotional CD.
4. Development of corporative propaganda and sponsorship - sponsorship of certain social events or associations will strengthen the goodwill in relations with the community, while informing the public on these activities will promote the image of the company.
5. Determination of annual budget for promotional activities - the amount of the annual budget for promotional activities will be determined as a percentage of the total annual income.

Request for innovations

Company “Zastava machines” is aware of the fact that it cannot live neither only on existing products, since the processes of technological obsolescence and market saturation are constant, nor only of innovation, because they require significant financial resources in the initial phase that can be delivered by the sales of existing product. Hence, the company nurture products that are in various stages of the life cycle. The assumption of such type of business is located in a permanent and systematic development of new products. For this reason, the company has engaged experts in the field of mechanical engineering and product design.

Figure 5: Categories of new products

| | | | |
|---------------------|-------------------------|--------------------|--------------------|
| High | Grinding services | | Gravel transporter |
| Novelty for company | Improvement of products | Services | |
| Low | | | |
| | Low | Novelty for market | High |

Source: The Authors

From the perspective of management, and identifying concepts of novelties to the company or novelties to the market, grinding services would represent the novelty for company, the services of keyways broaching complement the existing lines as the company already provides gearing services, while innovated reducer falls into the category of improving existing products. Gravel transporter is the novelty for the world, because it is a unique product which is the result of scientific and research study of the company’s experts. The company has significant innovations in the field of design and production technology as well.

Conclusion

We are witnessing the fact that changes become regular and commonplace thing which is the management of the company faced with every day. In Western economics, restructuring of enterprises is the basic instrument in hands of managers for successful adaption to the demands of a turbulent environment. Such management a priori means the possession of the ability to effectively manage organizational change in the process of organizational transition and adaptation to the newly created business environment. The development and survival of these companies depend on the ability to recognize conditions and factors of the situation and timely response to them. Unfortunately, our companies which have been developed under the auspices of the state, based on ownership monism, were burdened by the voluntary control of management, and never had a chance of being competitive to enterprises emerged in market economies. The role of management was reduced to protection of the interests of higher instances and transferring their orders. In such circumstances, management did not require any special skills.

However, transfer of our economic system into the market-type system requires the restructuring of economic entities in all segments of their business. The starting point of these changes are the principles and methods of market way of doing business, which points out the need to master the necessary skills and abilities as the basis of the effective exercise of managerial and executive functions. A good example of ownership of such management skills is the company “Zastava Machines, AD” Kragujevac. In order to strengthen its distinctive benefits, which will transform into an increased preference for its products on market, the company has implemented a restructuring process, using the model of “transformational managerial competences”. It is important to emphasise the continuity of this process, which is unfortunately rare case in our business practices, because the restructuring process in our country is applied only in cases of deep acute crisis, as the only way to react to the crisis. Management of the company represents a good example of the necessity to understand the importance of continuous implementation of changes in the organization, as well as the importance of mastering competencies that are essential for successful implementation of this process.

References

- Andriopoulos, C., Gotsi, M., (2002). Lessons from a Creative Culture, *DMI Review*, Vol. 13, No. 2, pp. 1-25.
- Barnes, J., Bessant, J., (2001). Developing manufacturing competitiveness in South Africa, *Technovation*, Vol. 21 No. 5, pp. 293-309.
- Basole, R., (2004). The value and impact of mobile information and communication technologies. *Proceedings of IFAC Symposium on Analysis, Modeling & Evaluation of Human-Machine Systems*, September.
- Francis, D., Bessant, J., Hodbay, M., (2005). *Managing radical organisational transformation*, Academic Press, New York, pp.18-29.

- Interni izveštaj preduzeća „Zastava Mašina, A.D.“ - Kagujevac, 2011.
- Keen, P., Qureshi, S., (2006). Organizational transformation through Business Model, *Proceeding of 39th Hawaii International Conference of System Sciences*.
- Keeney, B., (1983). *Aesthetic of Change*, Guilford Press, New York.
- Michelson, S., (2008). Globalization at the nano frontier: The future of nanotechnology policy in the United States, China, and India, *Technology in Society*, Vol. 30, No.(3-4), pp. 405-410.
- Miletić, S., et. al. (2012). Perspektive razvoja inovativne firme u svetlu odnosa između tehnologije i organizacije, *Ekonomika*, vol. 58, br. 4, str. 55-63.
- Moutinho1, R., et. al (2015). The Role of Regional Innovation Systems (RIS) in Translating R&D Investments into Economic and Employment Growth, *Journal of Technology Management & Innovation*, Vol. 10, No. 1, pp. 9-23.
- Радивојевић, Н., (2006). Улога лидера у процесу пословне трансформације предузећа, рад саопштен на *II међународном научном скупу - Лидерство у теорији и пракси*, Економски факултет, Бања Лука, септембар
- Radivojević, N., et. al. (2007). Mogućnosti i ograničenja e-biznisa, *Industrija*, br. 1. str. 55-77.
- Ratchford, J. T., Blanpied, W. A. (2008). Paths to the future for science and technology in China, India and the United States, *Technology in Society*, Vol, No. 30 (3-4), pp. 211-233.
- Rouse, W.B., Boff, K.R., (2003). Value streams in science & technology: A case study of value creation and Intelligent Tutoring Systems, *Systems Engineering*, Vol. 6, No. 2, pp. 76-91.
- Salami, R., Soltanzadeh, J., (2012). Comparative Analysis for Science, Technology and Innovation Policy; Lessons Learned from Some Selected Countries (Brazil, India, China, South Korea and South Africa) for Other LdCs Like Iran, *Journal of Technology Management & Innovation*, Vol. 7, No. 12, pp. 211-226.
- Stojanović-Aleksić, V., (2006), Uloga lidera u prevazilaženju otpora organizacionim promenama, Monografija “*Razvoj korporativnog upravljanja u ekonomijama u zemaljama u tranziciji*”, Ekonomski fakultet u Kragujevcu, Kragujevac.
- Zenger, J. H., (2002), *The extraordinary leader: Turning good managers into great leaders*, u Adžić, S, Lazić, J., Cvijanović, J., (2005), Leadership in the high performance organization, *Industrija*, br. 4, str.45-77.
- William B. R., (2005), Enterprises as Systems: Essential Challenges and Approaches to Transformation”, *Systems Engineering*, Vol. 8, No. 2, pp. 138-150.