STRATEGIC ALLIANCES AND INNOVATION STRATEGIES

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Abstract. In the era of globalization, strategic alliances are becoming more and more relevant as a tool for meeting customer demands and a significant form of growth. Contemporary business environment forces companies to create alliances, which enable them to take better market position. Innovativeness plays crucial role in accomplishing business efficiency and better market position. Every strategic alliance, which aims to become a market leader, must invest in innovation and formalization of strategic innovation system. The future belongs to the strategic alliances that realize the importance of formulation and implementation of innovation strategies first. In other words, successful implementation of strategy of innovation enables sustainable competitive advantage for strategic alliances.

Key Words: strategic alliance, innovation strategy, competitiveness, strategic innovation system

INTRODUCTION

New technologies, new products and new distribution chains constantly alter the competitive space within dynamic industries of the 21st century. In order to compete and survive in this turbulent business environment, a company needs a partner. Numerous enterprises from developed countries form strategic alliances in order to enter targeted markets. These alliances are formed either between companies of developed countries or with a partner from developing countries. Alliances created in this way satisfy the needs of local and global markets.

The primary hypothesis in the paper is that formulation and implementation of innovation strategy represent the core of sustainable competitive advantage of a strategic alli-
ance. Those strategic alliances that follow the pace of change and aim to create value for customers use intensively the strategy of innovation. It is interesting to notice that lately many strategic alliances use innovation strategy as a tool for repelling competitive attacks. However, strategic alliances cannot formulate a strategy of innovation that would last forever. Therefore, it must be redefined and altered constantly along with changes of business environment. Strategy of innovation helps strategic alliances to find the ways of repelling the competitive forces and realize sustainable competitive advantage.

Bearing in mind the primary hypothesis of the research, there are additional hypotheses as well. In line with the research focus, it can be deduced that adequate choice of type of innovation strategy enables strategic alliances to obtain better market position and competitive advantage. Strategic alliances possess the possibility of choosing the right type of innovation strategy according to the current situation. The types of innovation strategies are as follows: basic offer strategy, strategy of co-creation, modern technology strategy, strategy of future research, partnership strategy, knowledge strategy and risky strategy.

In addition, it is worth noting that it is necessary to formalize the system of strategic innovation as a crucial prerequisite for achieving competitive advantage and market leadership of a strategic alliance. The formalization of strategic innovation system implies responsibility for undertaking the strategy of innovation, employee involvement, financial resources for innovation strategy implementation, results monitoring, etc. Confirmed strategic alliances with instincts for inner changes and renewal, tend to formalize innovation strategy in order to remain vital in the future.

Last, but not least, it may be concluded that in the long run only those strategic alliances that use strategy of innovation may realize the potentials of the alliance itself. The future, which is not a linear extension of the past and the present, demands the application of innovation strategy. If the information age is replaced by the knowledge age, then the focus on innovation and implementation of innovation strategy is a logical step forward.

In line with the basic and additional research hypotheses, the qualitative research methodology will be used in the paper. The inductive and deductive methods of research based on secondary data analysis and synthesis will be dominant throughout the research. Furthermore, we will try to verify the defined hypotheses based on analogy and comparison, along with generalization of identified theoretical points of view and case studies.

I. THE IMPORTANCE OF INNOVATION STRATEGY FOR COMPETITIVENESS OF A STRATEGIC ALLIANCE

Modern business imposes constant competition with rivals with a goal to survive on the market. In order to survive at the existing markets and to expand to new ones, companies create partnerships with other companies. When technology becomes recognizable at the market, and competitors' pressure is increasing, companies prefer entering strategic alliances as a form of growth. Strategic alliances are formed by combining activities of the value chain, between at least two organizations with similar structure, compatible objectives, in order to achieve sustainable competitive advantage. These can be defined as "voluntary formal and informal corporate arrangement between two or more companies for the purpose of exchange and sharing the tangible and intangible resources (capabilities, knowledge, and skills) or for the purpose of developing new products/markets, which
Strategic Alliances and Innovation Strategies

should lead to realization of strategic goals and benefits of partners involved. The companies mainly enter alliances for the purpose of achieving strategic, not operational objectives. Therefore, they represent a form of strategic partnership [13, p. 96]. This is the reason why strategic alliances represent competitive weapon of the 21st century.

In the process of choosing partners, companies search for those that possess knowledge, technological superiority and innovation potential. Companies in the alliance tend to benefit from their partners, especially when the partners are competitors [13, p. 98]. Alliances tend to maintain and improve competitive advantage by making strategic decisions, which are primarily focused on development of new products, services, and processes. These decisions are the tool of aligning the strengths of the alliance with its external possibilities. Entering these cooperative arrangements lowers the costs and risks, since the costs and market risks for new product/service development tend to be very high for an individual company. Bearing in mind the increase in costs, risks and needs for new technologies, the prerequisite for competitive success is cooperation in terms of innovative activities, production and distribution of new products [13, pp. 85-86]. On the other hand, the essence for company's survival in today's turbulent environment is formulation and implementation of innovation strategy. Innovation strategy can introduce new perspectives for development of strategic alliances at any market. Therefore, forming of strategic alliances and formulating innovation strategy represent two mutually dependent and linked processes.

Within its innovation portfolio, strategic alliance usually makes decisions regarding definition of priorities in terms of innovative projects and establishing innovation capabilities. Adopted innovation strategy must be adjusted constantly to other strategies that are significant for projects realization. These strategies are technology strategy, production strategy, R&D strategy, and other function-level strategies. Only synergy from combined use of mentioned strategies can contribute efficiently to realization of identified strategic alliance objectives and to successful implementation of certain projects.

Strategic alliances need to involve in process, which is creative, market oriented and focused on future, in order to formulate innovation strategy successfully. Employees of each partner must be included in the process of innovation strategy creation and directed towards the objectives of the alliance. In addition, it is necessary to evaluate different ideas. Factors that influence innovation strategy formulation are the size of strategic alliance, the size of an industry and type of industry [9, p. 122].

Big alliances possess more resources at their disposal for the purposes of implementing innovation strategy. In addition, big alliances have more employees at hand, which can devote approximately 20-25% of their operate time to develop innovation strategy within the period of 6 to 8 months [9, p. 125].

Strategy of innovation represents the link between strategic alliance and business environment in terms of innovation. Innovation strategy has its roots in the business strategy and must support it as well. In order for strategic alliances to do business and realize innovation successfully, they need to combine technological change with the change of business model. The areas in which innovation strategy is connected to the changes in business model are [8, p. 28]:

1. Planned value, in terms of what is being sold and delivered on the market;
2. Supply chain, which stands for the way of creating and delivering the value;
3. Marketing that is used for reaching the customers for the purposes of product delivery.
Internal and external factors influence the choice of innovation strategy. Formulation of innovation strategy is affected by these factors. Therefore, management of a strategic alliance is obliged to scan these factors on regular basis. If the management is familiar with all the key information related to these factors, the failure rate of innovation strategy implementation reduces significantly. Table 1 presents these factors in detail.

Table 1 Factors that affect the choice of innovation strategy [5, p. 99]

<table>
<thead>
<tr>
<th>Internal factors</th>
<th>External factors</th>
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<tr>
<td>• Organizational capabilities</td>
<td>• Competition</td>
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<td>• Technical opportunities</td>
<td>• The structure of business area</td>
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<tr>
<td>• Financing</td>
<td>• The pace of technological change</td>
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<tr>
<td>• Success of current business model</td>
<td>• The opportunities of external network</td>
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<td>• Top management's vision</td>
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It is important to mention that competitiveness represents crucial element of innovation strategy development and a factor that this strategy has effect. Many authors think that innovation strategy represents the architecture for developing competitiveness. In other words, building competencies is critical strategic objective [6, p. 78]. When it comes to link between innovation strategy and competitiveness, the focus is on existing knowledge architecture. The problem may arise if competence prevents change. In other words, if the change in knowledge structure within strategic alliance reduces research activities and therefore new products are harder to develop.

Innovation strategy is vital for the following strategic alliances [10, p. 110]:
1. Strategic alliances that strive for sustainable competitive advantage,
2. Strategic alliances that aim at changing their strategic direction,
3. Strategic alliances at declining markets, and
4. Strategic alliances that must respond to new ways of delivering value to customers in order to resist the competition pressure.

On the other hand, the significance of innovation strategy for creation of competitive advantage for strategic alliance can be reviewed as follows [5, p. 103]:

- Innovation strategy enables realization of strategic objectives of an alliance, creation and delivery of value and building of sustainable competitive advantage.
- It helps in more precise monitoring and understanding of market and technology trends and their effect on the position of strategic alliance.
- Innovation strategy imposes creation of plans for the development of innovative possibilities and resources mobilization.
- Innovation processes are developed for the purposes of long-term objectives realization.
- Development of innovation strategy contributes to strengthening knowledge about customers and the market, about science and technology, about competition and suppliers, as well as about knowledge of available financial sources.

With the assistance from strategy of innovation, strategic alliances decide which type of innovation suits best to realization of corporate objectives. Strategic alliances may allocate resources for creating value and competitive advantage based on innovation strat-
egy. Innovation strategy enables strategic alliances to do things in the right way. It may be concluded that innovation strategy has multi-level importance for the development and achieving competitive advantage of strategic alliance.

2. TYPES OF INNOVATION STRATEGIES IN STRATEGIC ALLIANCES

By applying strategies of innovation, strategic alliances offer new products for customers and position themselves at new market segments. Contemporary literature offers numerous innovation strategies as tools for market domination and competing in terms of innovation potentials. Some of available innovation strategies for strategic alliances are platform offerings strategy, co-creation strategy, modern technology strategy, future research strategy, partnership strategy, knowledge-based strategy and risky innovation strategy.

The application of platform offerings strategy enables strategic alliances to act locally, but also to expand their business globally, while adapting their products to certain market. While doing so, the technology remains the same. This strategy demands strong visionary leadership, intensive teamwork, which is focused on innovation and product development. In case of implementation of this strategy, strategic alliances must be ready to accept financial and technical risks [1, p. 21]. For example, Nokia and Siemens as partners created different phones, in terms of external design, while their manufacturing technology was 80% the same [10, p. 126]. Therefore, a new product is the same technologically but differs in its special characteristics depending on the target market.

Co-creation strategy creates value by involving customers in new product creation with a goal to increase customer satisfaction. The needs and suggestions of customers are summarized and new products are developed accordingly [1, p. 23]. Procter & Gamble reached an agreement with International Olympic Comity and connected to mothers of six top Olympic athletes worldwide. Within this arrangement, 50% of ideas were created for new products development aimed at improving the life of athletes. The ideas emerged outside the companies involved, based on the interviews with the mothers of athletes [10, p. 130].

Modern technology strategy involves the use of modern innovative technologies in order to achieve competition dominance. Technology may be generated internally or acquired externally. Strategic alliances use technologies from more than one source and maintain their leadership position in this manner [1, pp. 26-27]. Nokia entered strategic alliance with Microsoft with the purpose of expelling Android-based mobile phones and Apple's iPhone. Nokia is going to exploit Microsoft’s Windows Phone 7 platform, while its competitors use platforms made by Google and Apple. This is not only the battle between Nokia on one side and Google and Apple on the other, but also a battle between Microsoft and Google at the field of modern technologies [10, p. 135].

Future research strategy implies monitoring technology trends in the future and a battle against ageing of the technology. The future cannot be predicted easily, so strategic alliances must have more than one option. Canon foresaw that LCD monitors would be replaced with more technologically advanced solutions. The company was not able to develop advanced technology, so it entered the partnership with Toshiba and began developing the flat screens of the future based on surface-conduction electron-emitter display [1, p. 27].
**Partnership strategy** is used to improve the innovation process, to exploit complementary competencies of the partner and to share the risk and the resources. The objective is to beat the competition by innovating in partnership. Airbus made the alliance with Deutsche Airbus, British Airways and CASA in order to create the airplane A-38. The exchange of knowledge and resources helped Airbus in creating the biggest airliner in the world [1, pp. 27-28].

Strategic alliances that use **knowledge-based strategy of innovation** are oriented towards development of new high quality products with high level of different types of knowledge built into them. The application of this strategy has a purpose of improving technology in order to satisfy specific needs of certain customer segments. Technological and market uncertainties are high [15, p. 871]. Daimler AG and Renault-Nissan joined up so that they develop the technology of small electrical cars. The cooperation entails joined development of small volume batteries and aggregates that are built into electric cars. The main objective of the cooperation is development of small city car for the needs of Daimler. In return, Daimler helped Nissan in developing technology of large volume aggregates and hybrid technology [10, p. 140].

**Risky strategy of innovation** entails development of new, technologically superior, high quality, knowledge-based products, which perform wide range of different uses and enable replacement of old products. Strategic alliances aim to dominate markets with this strategy, but also suffer high market risks. In many cases, alliances are focused on specific types of customers that were ignored by previous manufacturers. The right information is needed due to the existence of risk and uncertainty. By developing cooperation with customers and suppliers, diversification of risk is achieved and mutual interests are satisfied [15, pp. 872-873]. Partnership between Bayer CropScience and Food Chain was made with the idea that Bayer CropScience gives its clients expert advice and technical support. Bayer CropScience supported breeders, processors and sellers in their efforts to offer high quality product to the end customer at acceptable price. BCS proactively initiated partnerships within the food chain. Participation in Food Chain projects was focused on improving reliability of customers as well as the food industry regarding quality and food security [10, p. 145].

Everything said points to the fact that strategic alliances should use the innovation strategy, which will enable them to fulfill their defined goals. The adequate choice of innovation strategy is set by strengths and weaknesses of the partner in alliance, on one side, and threats and opportunities coming from external environment, on the other. The adequate decision about choosing the innovation strategy is based on detailed analysis of external and internal factors. By choosing the right strategy of innovation, strategic alliance should maintain and improve its competitive position at certain market. The selection of strategy must be determined by current situation in which strategic alliance is. Therefore, it is impossible to use just one business strategy in dynamic and altering business conditions. Practice reveals that strategic alliances use a number of strategies depending on situation. Sometimes they are more focused on one strategy, which is later replaced by another, or they use different forms of certain strategies.
3. FORMALIZATION OF STRATEGIC INNOVATION SYSTEM

Strategic alliances decide independently about the way of innovation strategy formulation. Some alliances formulate strategy of innovation with the help from ad hoc teams, while on the other side many strategic alliances do not exercise this kind of corporate policy and consider irregular use of innovation strategy as short-term solution. They focus on long-term solution, which entails formalization of strategic innovation system that will bring more benefits in the future. Formalizing innovation strategy is a complex process, which incorporates responsibility for strategy, directing employees towards certain goal, giving suggestions and answers, gathering necessary information and tracking results of strategy implementation. The following four elements are of key importance for formalization of strategic innovation system [8, p. 262]:

1. **Managerial mandates.** The process of creation and formalization of innovation strategy must be initialized from the management of the alliance. In addition, this process should be implemented within a team. Strategic management is responsible for the quality of outcomes. Short managerial mandates may jeopardize the scope of implementation and management dedication to the process of formalization. Managers should explain innovation strategy to employees, based on the analysis of quantitative and qualitative components of innovation system. Employees should see the strategy formalization as a tool for achieving positive results of the alliance in the future. Actually, employees must understand that innovation strategy formalization is a road to future and better performance.

2. **The infrastructure of strategic alliance.** There is no unique infrastructure that fits all alliances. This question is even more important when we consider the necessity of adjusting different corporate infrastructures of partners in alliance. A question imposes: which function within corporate infrastructure is mainly responsible for innovation strategy? Formalization of innovation strategy requires involving all main functions in its development (R&D, marketing, production, human resources and finance). Teams of employees must be involved in the process of innovation strategy in order for it to be a success. Team members should be creative individuals from alliance's partners that can evaluate market vitality of new products and are able to collect adequate information from customers and other sources. Bigger strategic alliances would form teams consisting of eight to twelve employees, while smaller alliances would create teams of four to six employees that are directly involved in strategic decision-making. Another significant resource is finance. The financing process differs from one alliance to another depending on size and quality of business performance. Usually, the range of investments in innovation strategy formalization goes from tens of thousands of dollars, in smaller alliances, to hundreds of thousands in bigger strategic alliances that function on a global scale.

3. **Innovation process.** Strategic alliances do not need to make decisions about participating in the process of innovation. This process represents normal agenda after previous phases. In other words, the third phase is a result of managers' activity in previous two phases. Teams should be working constantly on developing specific processes and on identifying new business opportunities that lead to creation of innovation strategy. Innovation process is undertaken through three phases [8, p. 264]:

Firstly, an analysis of customers and market dynamics is being carried out. Afterwards, a database is created based on this analysis. This database is available to everyone within strategic alliance and helps in stimulating new ways of thinking and generation of new ideas.
Secondly, the data gathered represent the basics for creation of innovation concepts portfolio. These concepts will enable the creation of strategic options in the future.

The third step entails team activities on building strategic maps for strategic alliance. These represent the structure of future business plan, the path that the alliance will take, based on strategy implementation and key market factors.

4. The culture of strategic alliance. Alliance's culture refers to establishing rules, norms and acknowledgements as support for innovation strategy. Formalization of innovation strategy will move forward if alliances develop innovative culture. Within strategic alliances, a certain type of environment must be implemented. This environment would stimulate the process of collective thinking and encourage effective knowledge transfer, which can be used as a tool for creating competitive advantage [13, p. 86]. When employees support innovation, promote value and flexibility, tolerate and aim to minimize mistakes, innovation strategy has a fertile soil for emerging. Innovation culture must start from strategic management, who wants to implement and integrate innovation culture into corporate culture e.g. alliance culture). The process of establishing culture is very long but very valuable to strategic alliance. Strategic management must be careful in the field of defining vision and objectives of the alliance. At the same time, strategic management points out the need for constant innovation and changes necessary for achieving defined vision and goals. Literature focuses on five elements of culture that positively correlate with the development of innovation strategy: organizational encouragement, supervising encouragement, resources availability, motivational work and work autonomy. In addition, there are two obstacles for development of innovation strategy: organizational obstacles and employees' quantity of work [8, p. 266].

Since formulation of innovation strategy is linked with effective knowledge flow and transfer, it entails usage of mechanisms like rotation of employees, open communication, development of close relationships, patents transfer, as well as transfer of knowledge, goods and services, and employee interaction. However, knowledge of employees of different partnering organizations within alliance must be adapted creatively according to new context. Through ongoing communication, managers can understand the ways in which knowledge may be creatively adapted and modified in order to reach new findings that lead to innovation [14, p. 266].

The four mentioned elements must function in accord in order for formalization process to be successful. Since the success of undertaking the process of formalization of strategic innovation system depends mainly on top management's actions, it is expected that top management should bear the highest degree of responsibility.

4. THE FUTURE OF STRATEGIC ALLIANCES THAT USE THE STRATEGY OF INNOVATION

Successful business nowadays and in the future forces managers to play two different games simultaneously. Contemporary management demands efficiency, flexibility, innovation, stability, and productivity enhancement in all aspects of business. Business in the future requires "innovation streams", which can misbalance the existing structure of the alliance, and can help alliance in obtaining sustainable competitive advantage.

Bearing in mind these contrasting forces of present and future, managers should exercise double policy in terms of managing alliance. On one side, they can create a stable
policy for the alliance that consists of stability and incremental change, and in the same time, managers can have the policy of encouraging experiments and radical changes. One way to implement this would be focusing on innovation strategy in the future. This means that attention must be directed towards significance and position of the alliance in the future, while current business is being implemented.

Efficient effort in terms of formulation of innovation strategy requires several basic future assumptions [3, p. 145]:

Firstly, the future does not exist still and it can be created. In other words, strategic alliances can act proactively and reactively in terms of market approach. Proactive approach means that an action undertaken today will affect future market conditions. Proactive alliances create future, while reactive ones can only survive in the future. Proactive strategic alliances through their actions can change the "the rules of the game" in the market, while reactive alliances must "play the game" differently or they will fail.

Secondly, the future cannot be predicted with certainty, but some key trends that help in future prediction can be identified. If the trends are linear and constant, the future can be predicted. However, trends, which point to discontinuity, shape the events that cannot be foreseen.

Thirdly, everyone see future in a different way based on his or her own experience and values. The future is a vision of an individual and cannot be delivered projection made by consultants. Individuals discover future. Strategic alliances, which operate in same industry, also see future differently.

Successful innovation strategy emerges from an idea developed inside the alliance, as well as from the initiatives undertaken by all employees. Strategic alliances must invest in ways of creation future innovation strategies. Strategic alliances that aim at being market leaders must be proactive in terms of discovering possibilities adjusted to the needs of dynamic market. Strategy of innovation must be led by the desire of strategic alliance to offer its customers higher value, trying to be ahead of existing and future competitors. Strategic alliances emerge and fail, but management must be aware that different business models will exist in the future. Formulation of innovation strategy and development of creativity must be initiated from the strategic level in order to accomplish objectives related to profitability and sustainable competitive advantage. Continuous search for new markets must become a priority. Strategic alliances, which act globally and tend to become market leaders, should formalize and systemize the process of innovation. However, some strategic alliances will continue using innovation strategy in the future occasionally. These strategic alliances will perform reactive strategic orientation and will form ad hoc teams, which will formulate innovation strategy when needed. Strategic alliances that operate in this manner will fail in obtaining leading position at the market, and their existence is questionable as well. Future contribution of successful innovation strategy is expressed in improved prosperity and proactive behavior compared to present time.

CONCLUSION

Strategic alliances become more and more significant and become very important form of cooperation between companies. This form of cooperation has objectives like diversification of risk, increase in resources, development of new and the use of current
technologies, innovative development and increase of market share, along with maximum exploitation of economies of scale and improving competitive position. Strategic ways of thinking and strategic decision-making represent necessity for successful functioning of strategic alliances. Considering circumstances existing on the market, there is no right and universal behavior that can be applied to all market participants, but the management of the alliance is expected to define successful innovation strategy according to detailed analysis of key success factors.

The paper revealed that formulation of innovation strategy represents a process that enables the ability of foreseeing the future, understanding changing needs of customers and identifying new business opportunities. Innovation strategy must be incorporated into business strategy. It alters business strategy in order to accomplish new values for customers and strategic alliance itself. By the implementation of innovation strategy, strategic alliances realize strategic objectives, create and deliver value and build competitive advantage. Development of innovation strategy helps in monitoring and understanding of market and technology trends, strengthening knowledge about customers, competition and suppliers, as well as about available financing opportunities. Therefore, formulation and implementation of innovation strategy becomes the foundation of creating sustainable competitive advantage of strategic alliance.

Strategic alliances might use more than one innovation strategy, since business environment is dynamic and alliances are exposed to continuous changes. Sometimes it is better to rely on one innovation strategy, which later can become less relevant, but then can be replaced with another innovation strategy already developed. Therefore, the right choice of type of innovation strategy enables strategic alliances to take better market position compared to their rivals.

Future survival and vitality of strategic alliances depends, in many cases, on the level of formalization of strategic innovation system. Formalization of strategic innovation system implies teamwork, complete involvement of strategic management in activities of formalization process coordination and development of alliance's culture, with one objective to reach long-term success with innovation strategy. That is why market leaders and those who attempt to become market leaders face the imperative of formalizing strategic innovation system.

Strategic alliances should balance the needs of contemporary business model with the business model of the future. Innovation strategies could be powerful tool for managing businesses in the future. Therefore, it may be concluded that the future belongs to those companies that constantly apply innovation strategy.

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**STRATEGIJSKE ALIJANSE I INOVATIVNE STRATEGIJE**

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Ključne reči: strategijska alijansa, inovativna strategija, konkurentnost, strategijsko inovacijski sistem.