

Zijada Rahimić, Ph.D.

Amra Kožo, B.Sc.

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Pregledni članak

# THE COMMITMENT OF B&H COMPANIES TO INNOVATION OR IMITATION

## ABSTRACT

Innovations have become an increasingly important factor in the struggle to preserve and improve the competitive position of enterprises in domestic and international markets. Innovative companies are those that react to sudden changes in the environment but are also the very cause of change. Dynamic and turbulent changes in the environment and constantly increasing competition, among other factors, have affected the shortening product life cycle and the duration of innovative solutions. Starting from the model creation value, a company may decide to create a new model for value creation or create an imitation - an adaptation of a dominant model in the industry. Both extreme positions (innovator vs. follower) require exceptional organizational skills.

The aim of this paper is that, the life cycle of products and companies' reactions to changes, determines whether the B&H companies are inventors or followers. In order to get a complete picture of the innovative strength of the observed B&H enterprises, we will, in addition, analyze the dynamics of investment in research and development, as well as top management's view of the importance of innovation in achieving competitive advantages for their companies.

**Key words:** Innovations, Competitive Advantages, Innovative Strategies

## 1. Introduction

Innovations have become an increasingly important factor in the struggle to preserve and improve the competitive position of companies in domestic and international markets. Innovative companies are considered to be those that react to sudden changes in the environment but also cause the changes. In order for the company to survive and develop in the modern global economy, top management must be able to understand and manage changes. That must direct the efforts of the companies towards seeking and finding new solutions. All changes and all improvements within one company and in other spheres of life as well, can be grasped by the concept of innovations. The

term innovation is often linked with technological changes, which include "...a new or innovated way of work or the production of the existing products, or the production of completely new products" (Šehić, 2002, p. 110).

For a company, a change has the character of innovation only if the company uses an idea first, that is if the company appears first in the market with the idea (first mover). All innovative changes for result have an improvement of efficiency and effectiveness. Whether the innovation will be focused on "cheaper" products or "different" products depends on which key competencies will be the backbone of its competitive advantage. Otherwi-

se, the innovation can be based on a broad set of core competences (Krueger & Homp, 1997, p. 275). The importance of key competence becomes more emphasized due to the growing differences between the time of product development, which becomes longer and the lifetime of a product, which is getting shorter. Precisely because of that, the product life cycle and the so-called Time Scissors dilemma will be represented in the first part of this paper. The second part will analyze the advantages that companies can achieve if they opt for innovation or for imitation. The third part of the paper aims to present a representation of innovations, as a basic fundament for building competitive advantages of B&H companies, and to analyze the areas where companies see special innovation opportunities and dynamics of investment in research and development.

## 2. Product life cycle and the time required for product development

Dynamic and turbulent changes in the environment and constantly increasing competition, among other things, have led to the shortening of a product's life cycle and the shortening of the duration of innovative solutions. This phenomenon (the duration of one innovation, and its replacement with a new generation), we mark with the term "time of the innovation substitution". It should be noted that the trend of shortening the duration of the innovations is present in all branches, although it is far more noticeable in technologically intensive industries. These changes have resulted in an increased importance of new products, which was confirmed in the results of research by Arthur D. Little in 1995 (Koruna, 1999, p. 101), according to which, most profit was realized by companies with products less than five years old. New generations of products are constantly suppressing products whose physical lifetime had not expired. Also, Rosabeth Moss Kanter points out that the current wave of innovations includes mostly new products that offer customers new capabilities and functions. Currently, managers prefer to seek new product categories aiming to expand an existing business rather than to seek new ideas which would lead them into entirely new areas (Kanter, 2007, p. 44-63). The main reason for shortening the product life cycle lies in the effort of the company-innovator to bring the competition in the so-called Time Trap (Kirschbaum & Koruna, 1995, p. 103). With

the term Time Trap, a situation is described in which company-inventors are shortening the life cycle of their products so much, that the slow followers have no possibility of return on investment in areas of research and development. A higher volume of production at the beginning of the very production process and rapid global market penetration allows the first mover companies to set market prices so low that they can barely be followed by other companies. If the company's followers fail to reduce costs, reduce time of depreciation or in some other way differentiate in relation to competitors, then they are threatened by the risk of high losses or even by the risk to be pulled out of the market.

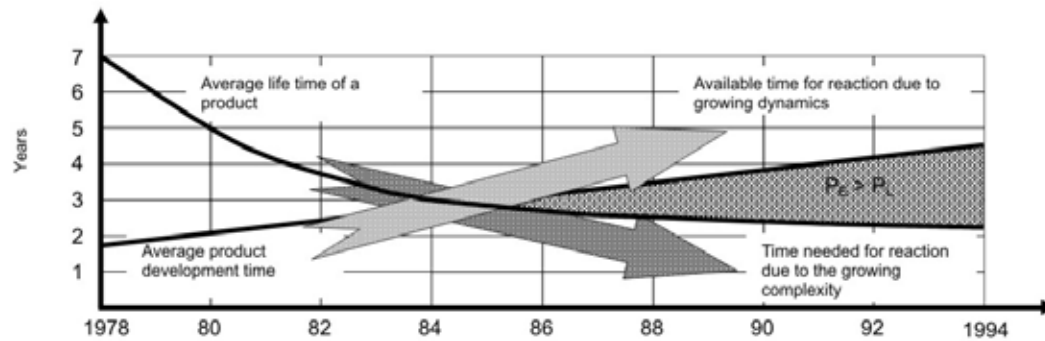
From Figure 1, it can be seen that the trend of shortening a product's life cycle is not followed by shortening the time required for the development of new products and processes (Bulinger et. al., 1991, p. 10-11). On the contrary, in certain industries such as electronics, the time of development is far longer from the time of the product life cycle. The growing complexity of products has a significant impact of the extension of time for development. In these branches, the competitive race has been reduced to the race for the continuous introduction of new products into the market, where speed of response is far more important than the correctness of the response to the market situation. Through creating new, more complex products, a company strives to meet the growing demands and desires of customers. Thereto, it is particularly difficult for the companies to predict what the buyers will buy and what new products the competitors will bring to the market.

The greatest insecurity is in the industries and companies with longer periods of preparation for production, since the decision on features (specifics), and product design have to be taken years before its introduction into the market. In this case, the uncertainty is two-fold: as first the technical insecurity appears and then the economic insecurity. Technical insecurity is likely to question whether the research and development project set goal has been achieved or not. Economic success depends on the conditions prevailing on the side of demand. Market acceptance is determined by the behavior of customers and not that of companies. A company must constantly bear in mind the risk that the market will not accept a new product and innovation. Analyzing the results of some research, according to which technical success has been se-

\* School of Economics and Business University of Sarajevo  
e-mail: [zijada.rahimic@efsa.unsa.ba](mailto:zijada.rahimic@efsa.unsa.ba)

\*\* School of Economics and Business University of Sarajevo  
e-mail: [amra.kozo@efsa.unsa.ba](mailto:amra.kozo@efsa.unsa.ba)

Figure 1: The Time Scissors Dilemma



Source: Adjusted According to Bullinger, H. J. & Wasserloos, G., (1991), *Die Schrauben Anziehen – Der Wettbewerbsfaktor Zeit Muss Konsequenz Genutz Werde*, Computerwoche, pp. 10-11

cured in 58 to 60% of initiated projects, market success in 30 to 31% and economic success in terms of return on invested assets in only 10 to 12%, it can be noticed that the assessment of the probability of technical success is twice the size of the probability of economic success (Rahimić, 2006, p. 278, Šehić, 2002, p. 170-171).

Technical and economic insecurity is becoming greater in the uncertain and turbulent environment, since in such an environment is extremely difficult to predict changes for a longer period of time. If changes to the requirements of customers occur there is a risk that the company develops inconsistently with the market. Therefore, companies should react proactively to create change by themselves and to be capable of reacting quickly to the desires and demands of customers and to all other relevant changes in the business environment. That is, better chances for success, for establishment and long-term preservation of competitive advantages will have companies that create changes (innovators) and companies that quickly respond to changes (fast follower).

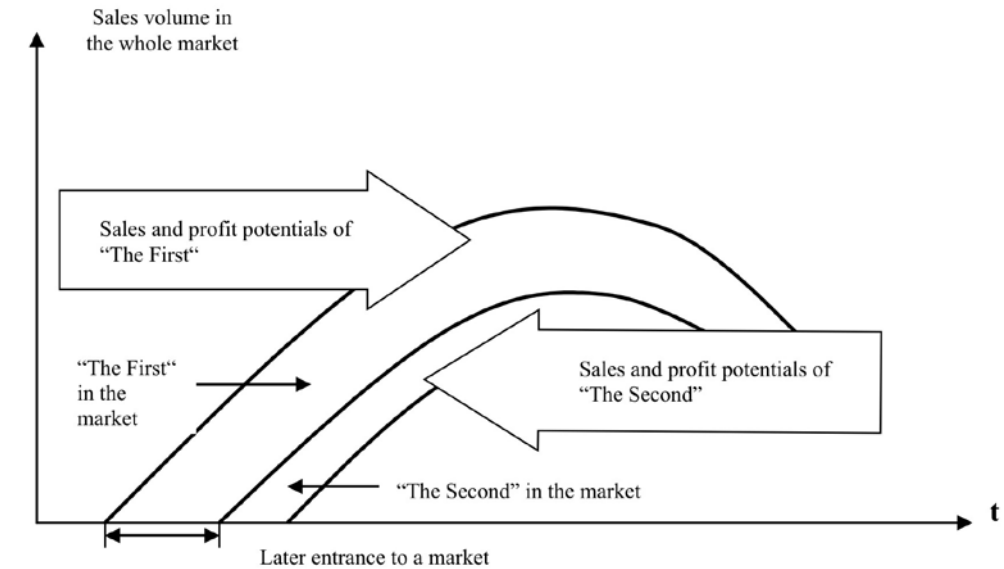
### 3. Commitment of enterprises for innovation or imitation

Thanks to innovation, a company will be able to quickly conquer new markets or increase its existing market share. In addition, a conquered market can be best defended with continuous innovation. First, innovations may be at the level of product, second at the level of business models, and third,

at the level of marketing and sales. Top companies are active in all three dimensions. If the factors were sorted by their importance, then the research results would show that the top firms give priority to the optimization of existing products and the development of new ones (Bailom et al., 2006, p. 10-12). The Innovator Company usually has a monopoly position that allows it to set standards in its industry, that is, to set "the rules of the game". The first provider can build a proven network with suppliers and distributors. Based on the above, as well as from Figure 2, it is obvious that the sales and profit potential of the innovator companies is significantly higher in relation to the company that has opted for the role of an imitator. However, there are studies that indicate that the key to the success of the company is not innovations, but its adjustment to market changes. Due to the dynamics and complexity of the market environment, the results of research conducted with 285 top managers of companies indicate that the far more successful companies are those that adapt faster to market developments such as new technology or the altered preferences of customers (Schaeffer & Stoll, 2007, p. 8-9). Schenkar (2010, p. 22) also claims that imitation may have a greater impact on companies' growth than innovation, but that idea has not yet been widely accepted.

In addition to the fact that it represents a sort of challenge, a change of an innovative character is associated with risk. The very quest for new ideas often ends up in a "dead-end street", many decisions get abandoned in the testing phase and

Figure 2: Time of entry into the market, and market share



Source: Koruna S., 1999, *Kernkompetenzen Dynamik Ueberleben im Hyperwettbewerb mit strategischen Allianzen*, Verlag Industrielle Organisation, Zuerich

if the company enters the market with a „green (not-ready)” product, then the company will hardly be able to set standards and with such move can jeopardize its image. Numerous scientific studies show that every other innovation is being withdrawn from the market within the frame of a few months. This, relatively high rate of failure leads to the fact that such not well thought out investments in new products are being more and more critically viewed. Even under the pressure of the crisis, top managers of some companies still continue to reduce spending on innovations, which also can be a bit of a trap (Stock-Homburg & Zacharias, 2009, p. 14-17).

If the company chooses the role of being a follower, it means that it has taken on imitation, that is an adaptation to the changes in the environment. These companies react with a touch of distance and reserve towards changes, rarely take the initiative, and leave experimentation to other companies. An imitator tries, through the accepting of certain tested and confirmed solutions, to minimize the risk and avoid the cost of typical pioneer expenses. In fact, it seeks to benefit from the experiences of innovators, without any, or with the least possible cost. Risks of this model are a shorter period of

depreciation as well as barriers to market entry and the protection of patents or trademarks (Rivete & Kline, 2000, p. 28-40). Both extreme positions require exceptional organizational skills. Innovative search for new rules of the game has creativity, flexibility and willingness to risk in the foreground (Zimmer, 2001, p. 42-55). The capability for the election of the right change, high ability of fast response and monitoring, and imitation capacity is important for the imitator. Imitators have to understand the "real" meaning of imitation and they should be capable to intelligently adopt good ideas to market requirements (Schenkar, 2010, p. 23).

In both creating models, the chances for success depend on the ability to elect the "real time", adequate organization and capabilities of building the entry barriers. It is obvious that the roots for building competitive advantages of enterprises based on innovative activities are in its specific capabilities. If companies have the aforementioned capabilities, that is, the key competences, then innovation can be the fundamental building block for building competitive advantages.

#### 4. Empirical research on determination of B&H companies

Given the fact that the business environment is quite dynamic and uncertain, the competition tougher and customers more demanding, and bearing in mind the increasing technological developments, the subject of this part of the paper is the presentation and analysis of how B&H companies respond to the changes in the environment. The aim of the research is to establish an innovative power of the analyzed companies. The study was conducted through the survey method, based on a prepared questionnaire.

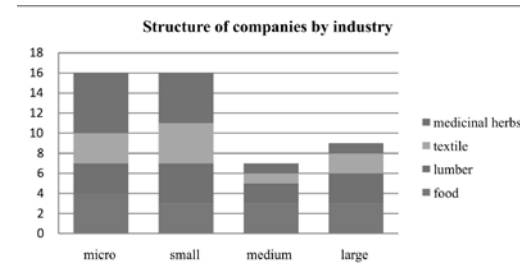
##### 4.1 Characteristics of the statistical sample

The selection of a statistical sample was conducted by an "intended sampling" method. A total of 90 questionnaires were distributed and 48 questionnaires from different companies were returned, properly filled out. The response rate is 53%. These companies are considered to be representative and relevant for this research. The chosen companies have various ownerships. They operate in four typical B&H branches (business sectors-(industries)): the food industry, textile industry, lumber industry and the production of medicinal herbs and products on the basis of medicinal herbs, and they are geographically dispersed. Figure 3 illustrates structure of companies by industry. The statistical sample covered 16 micro companies (from 2 to 10 employees), 16 small companies (from 10 to 50 employees), 7 medium-sized companies (from 50 to 250 employees) and 9 large companies (above 250 employees).

##### 4.2. Analysis of survey results

Through the analysis of the responses from the managers of 48 companies it has been established that in 33% of the companies, the new generation of products are suppressing products whose physical lifetime has not expired, while in 67% of companies the technological life is the same as the physical duration of product. This data indicates that the analyzed companies, seen in average, are not innovators (first mover), but they try to use advantages realized on the basis of existing products as much as possible. Therefore, the continuous improvements are present both in the production process and in the product, and also when selling

Figure 3. Structure of companies by industry



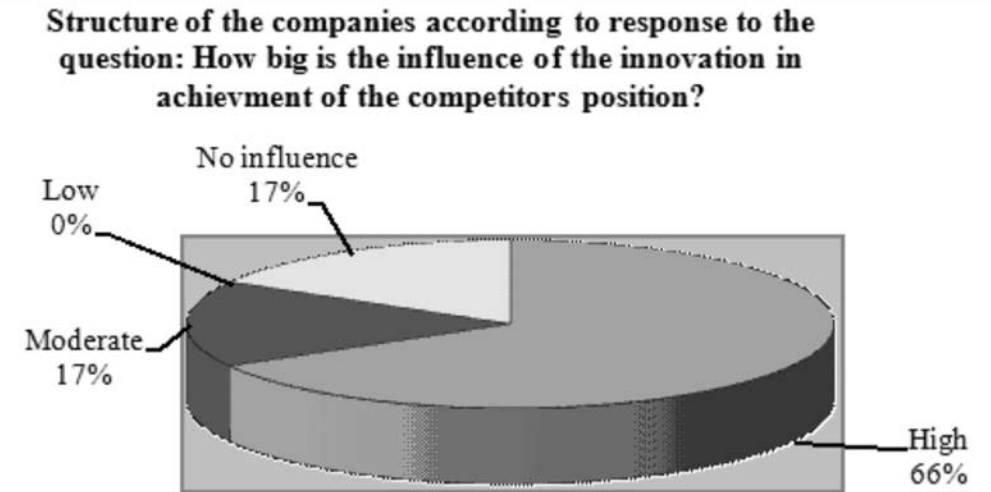
the product (marketing and services). In this way, the companies achieve a better usage of capacity, shorter production time, greater accuracy and simplified processes. It is obvious that the operative innovations are present in the analyzed B&H companies, since top management is more focused on improving existing processes and products, while innovative strategic thinking is suppressed (ignored).

Areas in which improvements have been made confirm a double contribution of innovation to the results of the business operations of the companies, namely: an increase of quality, which directly affects the increase in customers' satisfaction (effectiveness) and cost reduction (efficiency). The severity of the impact of innovative activities of B&H companies on the quality increase expressed by coefficient of simple correlation is 0.2162 and indicates that the 21.62% change of the quality evolved under the influence of changes in the intensity of innovations. Connection is moderately expressed and direct, that is, the higher intensity of innovations will positively influence the quality changes.

A statistical analysis of data led to the same indicators of the impact of innovations on cost reduction observed in domestic companies. Generally speaking, it can be said that innovative activity positively affects the business success of B&H companies, which is confirmed by the strength of influence expressed by simple correlation coefficient of 0.3137. It means that the 31.37% change of companies' success is related to innovation changes.

In order to obtain a complete picture of the innovative strength of the observed B&H companies it is necessary to examine the dynamics of investment in research and development as well as the attitude of top management about the importance of innovations in achieving compe-

Figure 4: Structure of the companies according to their responses to the question: How big is the influence of the innovation in achievement of the competitors' position?



titive advantages for their respective companies. It transpired during the research that only 50% of the companies have a regular setting aside of funds for research and development, while in 50% of the companies, either they do not have funds for research and development or do not consider it as necessary. To the question of whether in the next period there will be an increase in spending on research and development, on average, the top managers responded affirmatively. There are slight deviations between the individual ratings of surveyed managers, as confirmed by the standard deviation of 0.28 and coefficient of variation of 9.89%. Planned increase of investments in research and development activity is justified, since 66% of companies considered that the impact of innovations in achieving competitive position is high, and 17% of surveyed managers consider that impact as moderate (Figure 4).

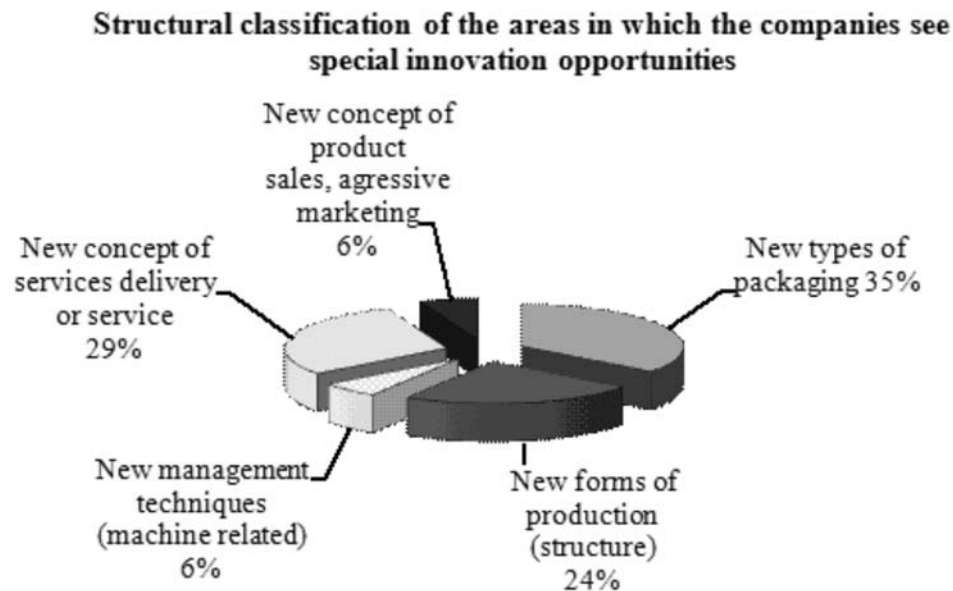
The reasoning that even 17% of the surveyed companies do not consider innovative activity as important in achieving success can be found in the type of business of that company (for example wood-processing-logs), and also in its limited (inadequate) financial assets. More precisely, even in the wood industry 41.67% of top managers do not believe that innovation affects the success of their companies, and 33.33% of managers give mediocre importance to innovation. Unlike managers of the wood industry, managers of companies in

the food industry and industries engaged in the processing of medicinal herbs have recognized the impact of innovation in achieving long-term success. Among 66% of companies that give innovation a high level of importance, 47.92% were from these two industries. In addition to the type of business, another reason for the low importance of innovation is limited financial resources. The explanation can be found in the fact that the structures of the analyzed companies dominate the micro and small enterprises (66.67%).

B&H companies have a chance to build a better competitive position if they better support research and development activities. Chances to increase innovation activity, as observed by top managers of the companies, lie particularly in new types of packaging, new concepts of service delivery or service, and in new forms of production (Figure 5).

The focus of companies to achieve a greater degree of customer satisfaction is obvious; either by strengthening the direct contact (packaging, service) or by reducing costs (in the process of production). These activities in the future are further evidence that companies have changes in the environment in mind and seek to respond to these changes. Within this goal, a continuous development of specific capabilities of companies is required, i.e. it is necessary to constantly dynamize the key competence.



**Figure 5: Structural classification of the areas in which the companies see special innovation opportunities**

### Conclusion

Based on the fact that companies operate in conditions characterized by dynamics and uncertain change, increasingly tougher competition as well as demanding customers, we can conclude that innovations are (and should be) a key factor in building and preserving the long-term competitive advantages of companies. Innovations, as ideas that create the future, are usually related to finding, developing and introducing a new product or new process to the market, but also to the continuous improvement of the existing one. Depending on its ability, a company may decide to make a revolutionary new model of value creation or to imitate and adjust the dominant model in the branch. Regardless of whether a company is creative, flexible and willing to risk or able to choose “the right change” and react quickly, in both cases before the decision to create a new product or imitation, the wishes of customers and their readiness to pay should be taken into account.

Companies of various sizes (micro, small, medium-sized and large companies) from typical B&H industries were included in empirical research of enterprises' capabilities for innovation and imitation: the food industry, textile industry, lumber industry and production of medicinal herbs and

products on the basis of medicinal herbs. The characteristics of industries, company size and financial strength significantly affect the company's commitment to improve current activities and processes, as well as enhancements to existing products. Research of B&H companies shows that 66% of managers were aware of the importance and positive impact of innovation on the development and preservation of competitive advantages. However, only 50% of top managers were reported to have a regular budget for research and development. A more detailed analysis of innovative activities, which focus on new types of packaging, new concepts of service delivery and new types of products, conclude that the B&H companies are not innovators. They are “followers” in the industry, who recognize the trends in the environment and try to imitate them, with the aim of making quality products and cost savings in the process of its production.

Based on the presented research results it can be concluded that innovative activity can and should be one of the fundamental building blocks for competitive advantages of B&H companies. It is obvious that innovation cannot be the dominant base of the observed companies and is necessary to direct innovation in such way as to support the achievement of high internal and external quality.

It means that it is possible to achieve, through research and development activities, both efficiency and effectiveness. The basic prerequisite for this is the continuous investment in research and development activities, the adjustment of its own activity to the new conditions in the market for business operating and the creation of additional value to the product even during its very production. In this way, B&H companies can achieve a better position of their products on the market, increase

the overall image in the eyes of customers and thus create additional sources of financing for research and development activities. In essence, we must not forget that a true commitment to innovative strategic determination includes continuous work on its realization, even in times of turbulent change and economic crisis, because it is the only way to retain existing, and attract new customers.

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**Zijada Rahimić, Ph.D.**

*School of Economics and Business  
University of Sarajevo  
e-mail: zijada.rahimic@efsa.unsa.ba*

**Amra Kožo, B.Sc.**

*School of Economics and Business  
University of Sarajevo  
e-mail: amra.kozo@efsa.unsa.ba*

## **TVRTKE U BOSNI I HERCEGOVINI – INOVATORI ILI IMITATORI?**

### **SAŽETAK**

Inovacije postaju sve važniji čimbenik u naporima poduzeća da sačuvaju i unaprijede svoj konkurentni položaj na domaćem i stranom tržištu. Inovativne tvrtke su one koje reagiraju na iznenadne promjene u okruženju, ali su i same pokretači promjena. Između ostaloga, dinamične i turbulentne promjene u okruženju, kao i stalno rastuća konkurencija utjecale su na skraćivanje životnog ciklusa proizvoda i trajanje inovativnih rješenja. Počevši od modela stvaranja vrijednosti, tvrtka se može odlučiti stvoriti novi model, ili oponašati i prilagoditi neki dominantan model u svojoj djelatnosti. Obje krajnje pozicije (inovator, odnosno sljedbenik) zahtijevaju iznimne organizacijske vještine.

Cilj je ovoga rada utvrditi jesu li tvrtke u Bosni i Hercegovini inovatori ili sljedbenici, i to na temelju životnog ciklusa proizvoda te načina kako poduzeća reagiraju na promjene. Kako bi se dobila cjelokupna slika inovacijske snage promatranih tvrtki u Bosni i Hercegovini, također će se analizirati dinamika investicija u istraživanje i razvoj, kao i stavovi top menadžmenta o važnosti inovacija u postizanju konkurentnih prednosti za vlastite tvrtke.

**Ključne riječi:** inovacije, konkurentna prednost, inovacijske strategije