

SERVICES FOCUSED ON KNOWLEDGE AS THE MOST IMPORTANT FORCE TO ACHIEVE COMPETITIVENESS

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Summary: The service sector is an important factor in the development of the modern economy. It manifests itself through the ease of overcoming the recession and by stimulating economic growth and employment. In this context, learning and knowledge play a key role in enhancing innovative processes, that is, achieving enviable competitiveness. Key issues that contemporary business activity should address are the challenges of managing knowledge, technology and innovation. The most important change that is taking place in the global economy is the change in the basis of acquiring, maintaining, developing and improving the competitive advantages of organizations and management functions in the process. Organizations have a successful competitive profile if they offer new, better, more reliable, functional, and cheaper products and services that the market and consumers are looking for, and that competitors cannot offer in competitive form. Today, many recognize the need for learning and knowledge capabilities throughout the organization, something that traditional authoritarian hierarchical organizations rarely possessed.

Keywords: innovation, competitive profile, absorption capacity, organizational learning.

Introduction

One of the few characteristics of the developed and competitive countries of the world today is that they have a "knowledge-based economy". As technologies become more complex, the participation of knowledge-based activities, through the successful application of innovations, significantly raises the competitiveness of businesses, the economy and countries as a whole. The OECD defines a knowledge-based economy as an economy that is directly based on the production, distribution and use of knowledge and

information⁵. Competitiveness is the foundation that measures the success of every organization. It determines the orderliness of activities that contribute to its performance, such as innovation, cohesion culture or good implementation⁶. Such settings show that the creation, application and commercialization of new innovative technologies and knowledge enables the development of highly sophisticated knowledge-based products and services, which are an important source of increasing productivity and productive and export competitiveness.

⁵ OECD (1996), *The Knowledge-Based Economy*, STI Outlook, Paris.

⁶ M. E. Porter, *Competitive Advantage, Achieving and Maintaining Top Business*, Masmedia, Zagreb 2008, 14.

1. Services as the most important means of achieving competitiveness

In the European economy, services have become the most important force for competitiveness. In 2016, two-thirds of jobs in EU countries were in the services sector, with no percentage in less than 50% in any country. More than three quarters of employees in the services sector had Luxembourg, 81 percent, France, 79 percent, Great Britain, 76.5 percent, Sweden, 75.8 percent and Germany 73 percent. On the other hand, there were 27.5 percent of EU employees in the industry, with the Czech Republic leading the largest share of employees in the industry, with 39.5 percent. This is followed by Slovakia with 38.8 percent and Slovenia with 37.1 percent.⁷

Service activities are an economic good, where, unlike goods, the material production or the tangible value of the end product is not in the forefront, but priority is given to the service of a natural or legal person who offers it for a fixed period or period of time to cover demand.

There are several definitions of services in the literature, the most famous of which are the following:

- *"A service is an activity or series of activities, to a greater or less intangible nature, which usually but not necessarily takes place in the interaction of the user with the person providing the service and / or with the physical resources or systems of the service provider,*

*which is provided as a solution to a user's problem. "*⁸

- *"A service is any act or act that one party can offer to another, it is mostly intangible and does not result in owning something. Its production may or may not be related to a physical product. "*⁹

C. Gronroos brings together a number of definitions of other authors and says: *"A service is an activity or a series of activities, to a greater or less intangible nature, which usually but not necessarily occurs in the interaction of the user with the person providing the service and / or with the physical resources or systems of the service provider, which is provided as a solution to the user's problems. "*¹⁰

All of the above definitions are broad and many organizations have not clearly defined their services, that is, there are no precise descriptions of what the service entails. Many organizations face the problem that their structures and processes are inadequate to develop effective innovative services that would allow them to better market themselves. In this respect, it is necessary to distinguish precisely what are the basic elements of the service and what are the characteristics of each.

Bullinger, Fähnrich and Meiren distinguish three basic dimensions of service:

- Structure dimension - structure determines the ability and willingness to provide the service;
- Process dimension - service is provided with external factors integrated into the processes,
- Outcome dimension - The outcome

⁷ http://ec.europa.eu/eurostat/statistics-explained/index.php/Employment_statistics/hr (20. januara 2018. godine)

⁸ C. Gronroos, *Service Management and Marketing - Managing the Moments of Truth in Service Competition*, Maxwell Macmillan International Editions, Lexington, Mass, 1990., p. 27

⁹ P. Kotler, *Marketing Management*. Mate, d.o.o. Zagreb 2001, 467.

¹⁰ C. Grönroos, *Service Management and Marketing – A Customer Relationship Management Approach*, Wiley, Chichester 2000, 143.

of a service has some tangible or intangible impact on external factors.¹¹

Goffin and Mitchell, add resource model, process model and product model as three essential categories in sizing services.

Figure 1 illustrates a model of service components according to Goffin and Mitchell.

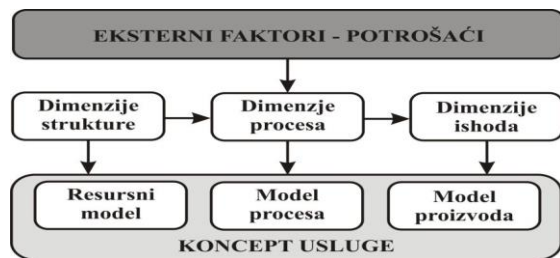


Figure 1. Model of service components¹²

In terms of the provision of intellectual and material resources, as well as appropriate information and communication technology, the most appropriate resource model is. The process model involves the preparation of adequate documentation. The product model implies the precise definition of procedures in the results of services in terms of appropriate quality and performance of services.

The service delivery chain is a logical continuation of the activity. In this regard, Hargadon and Sutton articulate the following operations:

- Reference to a service where the consumer must be attracted to a specific service;
- Scheduling of the service where the

service would be defined in time in order to adequately realize the service to the consumer;

- Diagnosing and selecting for a service application which involves troubleshooting and finding the right solution for customer satisfaction;
- Service application, which implies that the selected application must change;
- Paying for a service is an operation where the service consumer must pay a certain fee depending on the service provider's business policy.¹³

2. Innovation and innovating

Innovation and innovating are a fundamental process within every organization. It is a process that seeks to improve existing and create new products and services. From this point of view, innovation is a generic process associated with survival and growth.

The generic process, or its stages, are shown in Table 1 and are valid for all organizations.

Stages of innovation	Activities
Search	Searching the indoor and outdoor environment for signals to help come up with an idea for innovation, but also to identify

¹¹ H.J. Bullinger & T. Meiren, *Service Engineering* u M. Bruhn & H. Meffert (eds) *Handbuch Dienstleistungsmanagement, Von der strategischen Konzeption zur praktischen Umsetzung*, Gabler, Wiesbaden 2001, 149-175.

¹² K. Goffin & R. Mitchell, *Innovation Management: Strategy and Implementation Using*

Pentathlon Framework, Palgrave, Macmillian, New York 2002, 159.

¹³ A. Hargadon & R. Sutton, *Building an Innovative Factory*, Harvard Business Review, Vol. 80, No. 8, 2002, 263.

	threats from the environment;
Selection	Selecting those signals, at the strategic level, that are thought to have the greatest impact;
Implementation	Translating potential triggers into something new and launching it internally or externally;
Collecting resources in the form of knowledge	Especially gathering resources in the form of knowledge to enable innovation. This primarily refers to the knowledge of R&D, market research, the acquisition of knowledge through technology transfers, strategic alliances, the purchase of small businesses with a new product, etc.
Project execution and project management	Making a lot of quick decisions because of new uncertainty generation problems;
Supporting the project in the long term	Revising the original idea and modifying the

	idea, ie reinvention;
Learning	Organizations must seize the opportunity to learn by finding all stages as they progress in the innovation cycle to build a knowledge base and to improve the process of managing such innovation projects.

Table 1. Innovation phases as a generic process¹⁴

The technology and experience itself has shown that organizations that have tried to copy service development through product development have not achieved the expected results. Namely, services are based on interaction with consumers and require a sophisticated development methodology, and this depends largely on the type of service.

3. Innovation and learning

The effects of service innovation on the competitive position of an organization are directly dependent on the organizational learning process, which refers to knowledge of the components and key concepts underlying them. The lack of these components leads to poor performance of organizations. Failure to continue learning and not to support dynamic knowledge absorption leads to a loss of competitive advantage.

¹⁴ J. Prester, *Innovation Management*, Synergy, Zagreb 2010, 31.

3.1. Absorption capacity

As it becomes increasingly difficult for organizations to keep up with changes in technology and environment, those organizations that have a stronger absorption capacity, which is defined as the ability to acquire new knowledge, that is, the organization's ability to acquire information and communicate ideas, will be better able to create competitive advantage through innovation.

The absorption capacity of an organization is divided into:

organizational learning,
potential absorption capacity (acquisition of new knowledge and abilities) i
realized absorption capacity (includes transformation and application of acquired knowledge).

Forés and Camisión state that innovation is measured not only by investing a certain percentage in R&D but through its absorption capacity. For this activity, they offered an instrument to evaluate the absorption value of the organization. Ratings can be given from 1 (poor, poor ability) to 5 (excellent ability), with the ability for organizations that are in the more advanced innovation phase and up to the upper limit of 7 (for greater accuracy).

ORGANIZATIONAL LEARNING	
Internal learning ability	
Knowledge and acceptance of goals	All employees have a general knowledge of the goals the organization wants to achieve
Strategic orientation	The extent to which employee knowledge is consistent with the strategic goals of the organization

Teamwork	The level to which employees work in groups
Familiarity with contributing to an organization's goal	All parts of the organization (departments, sectors, teams and individuals) need to know how they contribute to the overall goal
Coordination in the organization	The level to which everyone in the organization is coordinated
Management commitment	
Talent for dialogue and collaboration managers	A managerial spirit that fosters dialogue and diverse opinions as well as reaping the benefits of collaboration
The ability to encourage	Managerial ability to support other employees' initiatives and suggestions, as well as experimenting with new ideas to improve a product or process
Motivating employees	Managers often inform employees about important decisions
Employee education	Employee learning is seen as an investment, not an expense
Managerial propensity for change	Managers take a positive view of implementing changes in any segment to be ahead of the competition
Compensation system for innovation	In this organization, innovation is rewarded
ABSORPTION CAPACITY	
Ability to accept	

Openness to the environment	Is management open to opportunities and threats from the environment or waiting, and then makes decisions subsequently
Cooperation in research and development	Frequency and importance of cooperation with colleges and institutes
Competition knowledge	The capacity to gather competition knowledge
Internal development of technological competencies	Effectiveness in developing initiatives that will enhance technology competencies in R&D, customers and suppliers
Ability to apply knowledge	
Knowledge management	Ability to develop knowledge management systems that enable employees to understand and analyze such accepted knowledge from other organizations
Assimilation of technology	The capacity to embrace new technology and innovations that have proven successful
Human resources	Ability for existing employees to use their knowledge to gather and apply the knowledge they have acquired
Industrial benchmarking	Organizations profit from the use of proven practices of similar businesses
Involvement in knowledge diffusion	The degree to which employees of organizations present papers at conferences, be guest lecturers, or outsourced researchers to the organization

Attendance at trainings and special events	Attendance at seminars, professional promotions and meetings
Transformational capacity	
Transfer of IT knowledge	The organization's capacity to deploy IT to accelerate knowledge sharing, including virtual meetings
The ability to adapt	The ability to adapt to own technology needs developed by other manufacturers
Exchange of scientific and technological knowledge	The degree to which organizations generally permit the exchange of scientific and technological knowledge with other organizations
The ability to rejuvenate	Ability to quickly dismiss outdated knowledge and look for new alternatives
I & R integration	Coordinating I&R with engineering, marketing and sales
Applying knowledge	
Application of experience	The degree of application of the know-how gained in technology and business in line with the business strategy, with a view to achieving a competitive advantage
Exploitation of new knowledge	The ability of an organization to apply acquired knowledge in specific workplaces to meet environmental requirements
Technological proactivity	The extent to which new products and

	services are being innovated and offered with regard to self-response to market demands
Development of patents	Ability to patent knowledge
INNOVATION CAPACITY	
Product and service innovation	
Number of different products and services	Ability to produce different products and services
Specialized products and services	Ability to offer special products and services
Diversification of products and services	Ability to develop a portfolio of different products and services
The first on the market	Ability to develop and adapt products and services to be first on the market
Quality of products and services	Ability to produce high quality products and services
Product and service behavior	Ability to produce high-tech products
Ease of use	Ability to make products that are easy to handle
Technological differentiation of products	The ability to differentiate a product technologically
Process innovation	
Flexibility in process planning	Ability to develop the planning process so that the production schedule can be changed quickly and frequently according to customer needs
Production organization	The capacity to develop a creative, effective and efficient production system or

	operating procedures for rapid production
Production planning and control	Ability to create and apply adequate control mechanisms in production
Delivery speed	Ability to deliver quickly either to your own or someone else's fleet
Organizational Performance Indicators	
Average margin	
Average Return on Assets (ROA)	
Average Return on Investment (ROI)	
Average sales return (net profit / sales)	

Table 2. Model for evaluating the innovation potential of an organization

Forés and Camisión calibrated this measurement instrument and, using structural mathematical expressions, defined strengths, the focus of which was the methodology of the effect of organizational learning and absorption capacity on the end result of the organization. All sets of questions from the Innovation Potential Evaluation Model are sublimated into the structural model shown in Figure 2.

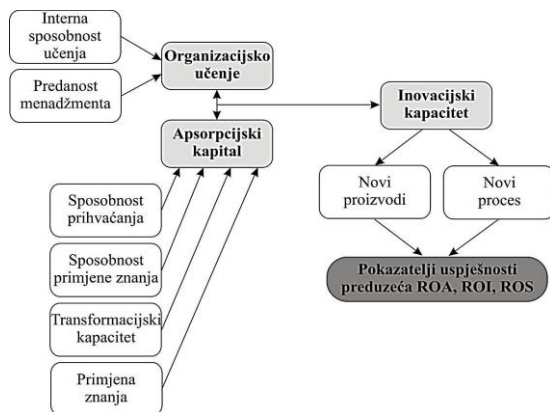


Figure 2. Structural model of organizational innovation potential¹⁵

Certainly, innovations provide an opportunity to identify the elements that have led to business success. These are valuable assumptions that help in the next innovation venture.

The facts that support successful innovation highlight McDonough, Zack, Lin and Berdrow in particular:

- successful innovations are of strategic importance,
- successful innovations depend on internal and external links,
- successful innovations require an innovation climate in the organization to bring about innovation at all,
- successful innovations require mechanisms that drive and enable change.¹⁶

Of course, it is easy to check all the above elements by appropriate questionnaires, but assuming that all the elements that exist in the organization require knowledge. This refers to the knowledge that is needed to

guide the innovation process itself, from service or product innovation to market launch.

Although the environment is turbulent, technology is advancing, the innovation process itself needs to be dynamic, and Prestner adds dynamic innovation capabilities to it, which is essentially an organization's strong absorption capacity and knowledge to drive innovation¹⁷. Lack of knowledge leads to a decline in the economic power of the organizations themselves. For these reasons, organizations need to find opportunities to learn from their innovation projects in order to enhance their competitive position¹⁸. To this setting, Govindarajan and Trimble add that learning is an absolute necessity.¹⁹

3.2. Knowledge

The explanation of the concept of knowledge can be approached from different points of view. The following division is in management:

- Uncodified (implicit) knowledge is one that is difficult to express clearly in a way that is only fully understood and complete. One knows more than he can express in words or otherwise points to an implicit dimension of knowledge.
- Codified (explicit) knowledge is one that can be grouped and encrypted, that is, expressed in the form of numbers, formulas, charts, diagrams, or in computer code, which enables easier

¹⁵ B. Forés i C. Camisión, *The complementary effect of internal learning capacity and absorptive capacity on performance: the mediating role of innovation capacity*. International Journal of Technology Management, X (Y), u J. Prester, *Menadžment inovacija*, Sinergija, Zagreb 2010, 134-137.

¹⁶ E.F. McDonough, M. Zack, H. Lin & I. Berdrow, 2008. *Integrating Innovation Style and Knowledge Into Strategy*. Sloan Management Review, Ref.No. SMR₂₉₄, p. 1-8.

¹⁷ J. Prester, *Innovation Management, Synergy*, Zagreb 2010, 202.

¹⁸ S.L.Beckman & M. Barry, 2007. *Innovation as a Learning Process: Embedding Design Thinking*. California Management Review (HBR Ref. No. CMR₃₇₇), p 1-33.

¹⁹ V. Govindarajan & C. Trimble, 2004. *Strategic Innovation and the Science of Learning*. Sloan Management Review (HBR Ref. No. SMR₁₂₈), p. 1-12.

communication.

This division suggests that the higher the level of codification of knowledge, the more cost-effective the transfer and does not require direct, direct contact for the source of knowledge.

Uncodified or implicit knowledge is difficult to transmit, and only the costs of transfer are higher. Deficiencies can be remedied by direct communication at the source of knowledge.

The division into "visible" and "invisible knowledge" is a framework of technologies that are publicly available and easily visible once purchased and the process itself, which is invisible from the outside, or sent within the product itself, is more difficult to access for negative engineering, imitation and copying.

'Positive knowledge', that is, discoveries, can direct research into areas that are highly anticipated, thus avoiding difficult or even challenging innovative, technological, financial and market situations.

It is often forgotten that knowledge about failures - the "negative knowledge" that can be expressed *as this approach does not work* - is also extremely valuable in directing resource allocation to the more promising champions and enabling a series of failed attempts to find an appropriate solution to a problem. Organizations often hide their failures as their own secrets of success, that is, they turn their actual failure into a successful strategy for avoiding similar mistakes.

The division into "autonomous" and "systemic knowledge" is within the framework of value delivery without major modifications to the system in which it can be incorporated. System innovation

requires modification of other subsystems involved in its technological and economic application.²⁰

Conclusion

The high quality of services in the age of globalization is the safest competitive strategy that leads to an increase in the value of the service and customer satisfaction, and thus a long-term competitive advantage in the market. Changing the structure of world trade by increasing the share of services turnover at the expense of reducing the turnover of goods is becoming more pronounced. The scientific and technological revolution strengthens the international division of labor and the increasing interdependence of individual countries, which eventually causes the world trade as well as the international movement of capital, labor, or service sector to become increasingly important factors of economic development.

In the chaotic world of global competition, organizations must continually innovate their services if they are to compete successfully with other organizations. Innovation is a key feature of modern organizations. Innovation is a process of change, experimentation, transformation and revolution, which means that the key aspect is activity. The process of "creative destruction" that characterizes innovation leads to technological change and employment growth.

The impact of service innovation on the competitive advantage of an organization interacts with organizational learning. Failure to conduct continuous learning and not to support dynamic knowledge absorption leads to a loss of competitive advantage.

²⁰S. Kotlica and S. Rankov, *The Impact of Innovation and Technology on the Competitiveness*

of Modern Business, Megatrend University, Belgrade 2014, 122-124.

Only by changing our way of thinking can we move deeply embedded policies and practices toward shared values and understandings of learning and knowledge as the most important force for competitiveness. In today's world economy, it is not only sufficient to learn, but also to learn faster than competing organizations.

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