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Market Orientation and Development of Innovative Solutions in the Mobile Telecommunications Third Generation Networks

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This article summarizes and evaluates different aspects of the market orientation research carried out by various researches. The relationship between market oriented enterprise and the learning organisation is investigated. Market orientation is regarded as the resource of the organisation facilitating the learning process and the development of innovations. The main problem of this research is the anticipation of customer needs in the constantly changing environment. Market orientation theory is used to find a solution to the problem and construct a general framework for a better intelligence generation, information processing in the company and response to this information in order to satisfy the identified customer needs in the most effective way. The research problem is addressed through the investigation of the organizational learning processes and the development of innovations. The focus of this research - market orientation ensuring the implementation of long-term goals of a company and satisfaction of the fast changing customer needs. One of the main objectives of the theoretical research is the identification of the most important aspects of company orientation towards the market and the suggestion of the ways to anticipate changing customer needs. The empirical research is carried out in the sector of mobile telecommunications. In Lithuania mobile operators are operating under the saturated market conditions. The enhancement of service revenues in the mobile telecommunications sector can be achieved by developing usage stimulating content applications and data services. Data services are rapidly developing together with the increased data speed in the third generation (3G) mobile networks. The number of mobile internet data users is increasing. The operators in the market have to use the right momentum to capture this developing segment of customers in the mobile telecommunications market. The competitive advantage is achieved by those operators who are the first in the market with new developments. The second major objective of the research is to perform an empirical research of mobile telecommunication companies and verify the obtained theoretical results. This study seeks to define the relations orientation. hetween market innovations organizational learning in the mobile telecommunication sector. In order to assess the innovativeness of a company the innovation scale was developed based on the organization innovativeness criteria introduced by Capon, Farley and Hulbert (1988): the first criterion is evaluating how often a company is the first-to-market with new

products and services compared to the competition; the second criterion is evaluating the market stage (growth, maturity, decline) at the moment of introduction of a new product or service; the third criterion evaluates the novelty of implemented technologies. The results of the empirical research are suggesting that faster implementation of innovative solutions in the mobile communications market can be achieved through the global partnerships, fostering generative learning principles and encouraging the development of innovations.

Keywords: market orientation, organizational learning, innovations, mobile telecommunications.

Topic Relevance and Research Motives

Changing needs of the maturing market require searching for the most effective ways to satisfy the demand. To survive under the pressure of increasing competition, companies must search for the effective business ideas and put them into the daily practice. Successful operation of a company is determined by its ability to anticipate and satisfy the needs of the customers. The effectiveness of the need satisfaction lies in the capability of a company to acquire information about those needs, to process it and to take the responsive actions.

The marketing concept regards the customer as a source of information and the base for the operation of a company. Kotler (1994) states that the essence of the marketing concept lies in the identification of the target market needs and wants and a more effective way to satisfy those needs compared with the competition. Deshpande, Webster (1989), Webster (1992), as well as the researchers in Lithuania Pranulis, Pajuodis, Urbonavičius, Virvilaitė (2000) place the customer into the centre of the company thinking.

The implementation of marketing ideas can be reflected only by the business orientation of a whole organisation. Market orientation is considered as one of the most progressive theories (Houston 1986, Dalgic 1998, Webster 1988). Application of this theory can result in a better performance of a company (Narver, Slater 1990, Ruekert 1992, Jaworski, Kohli 1993, Kohli, Jaworski, Kumar 1993, Slater, Narver 1994, Deng, Dart 1994, Deshpande, Farley, Webster 1993, Han, Kim, Srivastava 1998, Slater, Narver 2000). Market orientation research has not yet received much attention from the Lithuanian

scholars. It is possible to mention Dikčius' (2002) study of managers influence on business orientation development and the study market orientation development in mobile telecommunications sector performed by Kurtinaitienė (2004). However, there is a need to deepen the knowledge about the elements of organisation behaviour that form the basis for market orientation development.

Mobile telecommunication companies were selected for the empirical case study. Trends of the Western European mobile telecommunication market development indicate that mobile telecommunication suppliers have to adapt their activities and learn to operate under the saturated market conditions. Empirical research was focused on the global players in the mobile telecommunication industry and their role in the learning curve of the local mobile telecommunication companies fostering the implementation of innovations.

The Research Problem

The effectiveness of customers need satisfaction determines the successful operation of the companies and the growth of economy. The growing pace of information exchange on a global scale is accelerating the change of customer needs. *The main problem* arises searching for the ways to anticipate the needs in order to be prepared to satisfy them at the required moment. How can market orientation theory be adopted to organize the intelligence and produce timely responsive action?

Market orientation was studied by many researchers. Webster (1988), Shapiro (1988), Narver, Slater (1990), Kohli and Jaworski (1990), Ruekert (1992), Deshpande, Farley, Webster (1993) and others studied market orientation. It is important to summarize and evaluate different aspects of the marketing orientation research carried out by various researches. To find a better solution for the problem of marketing concept implementation, it is necessary to identify the organizational behaviour influencing market orientation of a company. A general framework should be constructed for a better intelligence generation, information processing in the company and response to this information in order to satisfy the identified customer needs in the most effective way.

Research focus - market orientation ensuring the implementation of long-term goals of a company and satisfaction of fast changing customer needs.

Objectives of the research

- Identify the most important aspects of company orientation towards the market and suggest the ways to anticipate changing customer needs.
- Perform an empirical research of mobile telecommunication companies and verify the reliability of the obtained theoretical results.

Research methods

This scientific research involved a complex of various research methods:

 Systematic comparative scientific literature analysis is applied in the theoretical part of the research. Analysis of the scientific literature involves the original sources

- of Lithuanian and foreign theoretical and empirical research.
- The empirical research data was compiled using the expert assessment method. The base for the empirical research was formed from the primary data sources acquired from an interview with experts working in the mobile telecommunication sector.

Theoretical interpretation of market orientation

The implementation of market orientation in this research is studied by analyzing certain elements of an organizational behaviour. The main task of a market oriented company is to balance the needs of the customer against the long-term goals and the capabilities of the organisation. To identify the concept of market orientation it is necessary to review the basic perspectives of the market orientation analysis found in the theoretical research.

Market orientation is perceived as a culture influencing organizational memory. Organizational memory accumulates the intelligence that influences managerial decisions. Managerial decisions coordinate such elements of organizational behaviour as intelligence generation, intelligence dissemination and responsiveness of the organization.

Slater and Narver (1995) have noticed a lot of similarities between the learning organization and the market orientation company. These scientists analyzed market orientation as a critical element in organization learning theory. Market orientation and learning is related by these essential stages: 1) constant intelligence generation about customer needs and the actions of competitors; 2) internal intelligence dissemination and application to achieve better performance results.

Han, Kim and Srivastava (1998) empirically proved that all components of market orientation are positively related to the implementation of administrative and technological innovations. Market orientation facilitates the implementation of innovations and helps to improve the performance results of an enterprise. Innovative products and services enable to create a need of a customer and deliver the solution to that need at the appropriate time.

Innovations cannot be achieved without unique technologies, know-how or human resources. To achieve a complete understanding of the market orientation concept, the resource perspective has to be added to the market orientation concept analysis. The resource perspective helps to analyze relations between the market orientation and the performance results. Accumulated resources are used for the organizational learning processes. Organizational learning creates new organizational forms and facilitates a better usage of accumulated resources in an organization. The resource perspective reveals another important set of relations between market orientation and organizational learning. Slater and Narver (1995) indicate that all companies competing in the dynamic environment have to change the behaviour in the learning process and seek to improve the performance results. It is stated that organizational learning changes the behaviour and improves performance results (Fiol, Lyles 1985, Sinkula

1994). Slater and Narver (1995) have indicated two forms organizational learning: adaptive learning and generative learning. Adaptive learning is the simplest form of learning, while generative learning requires developing a totally new attitude towards the organization and the surrounding environment. Generative learning forces to review the basic assumptions, reconsider the strategic goals and target new customer groups. The implementation of market orientation requires stimulating the generative learning processes in the organization. In managerial practice, very often intelligence is generated based on the stereotypic assumptions used in the organization. This process resembles the above described notion of adaptive learning. To improve the performance results, it is not enough to acquire intelligence through the adaptive learning process. A company must cross the boundaries of adaptive learning and reconsider market opportunities, target customer groups, actions of competitors and seek to apply non-standard methods. In order to implement market orientation and to achieve better performance results, a company should develop the generative learning principles.

This study seeks to define the relations between market orientation, innovations and organizational learning in the mobile telecommunication sector. In order to assess the innovativeness of a company the innovation scale was developed based on the organization innovativeness criteria introduced by Capon, Farley and Hulbert (1988): 1) the first criterion is evaluating how often a company is the first-to-market with new products and services compared to the competition; 2) the second criterion is evaluating the market stage (growth, maturity, decline) at the moment of introduction of a new product or service; 3) the third criterion evaluates the novelty of implemented technologies.

Market orientation empirical research results in mobile telecommunications sector

Mobile telecommunication industry is rapidly developing. The fastest growth is observed in such Asian countries as China and India. In most European countries penetration of mobile telecommunication is already close to a 100%.

According to the data presented by Lithuanian Communications Regulatory Authority in the 3rd quarter of 2007 mobile penetration has reached 145% of active mobile SIMs (Subscriber Identity Modules). If voice usage on Lithuanian mobile networks is still growing, total number of SMS (Short Message Service) has reached the saturation due to expired free SMS offers (data from CRA 2007 Q3 Report). Mobile operators can enhance service revenues by developing usage stimulating content applications and data services. The competitive advantage is achieved by those who are the first in the market with new developments.

One of the key elements driving mobile data usage is the development of mobile internet. Mobile operators in Lithuania are supplying this service for a number of years already. However due to the low data speed available on the mobile network this service generated comparatively low revenue streams. To overcome this limitation mobile industry developed new technologies enhancing the speed of mobile data. First enhancement of data speed on second generation (2G) mobile network was an introduction of Enhanced Data GSM Environment (EDGE) technology, which became commercially available in 2001. In Lithuania this technology was pioneered by UAB "Bitė Lietuva" in 2003. EDGE technology enabled to achieve three times higher data speed (up to 384 kilobits per second) compared to standard available on GSM and enabled faster delivery of multimedia applications to mobile phones and computers. EDGE was regarded as an evolutionary standard on the way to the development of 3G (third generation) mobile networks. However the major push for the data service was the development of 3G (third generation) networks based on UMTS (Universal Mobile Telecommunications Service) technology. 3G development in Lithuania started in 2005. This technology allows transmission of multimedia services up to 2 megabits per second. UMTS technology enables the users of mobile phones and portable computers to be connected to the Internet on the move. Deployment of new mobile telephony protocol HSDPA (High-Speed Downlink Packet Access) allowed increase of the theoretical data download speed up to five times compared to the standard UMTS data speed. In practice HSDPA allows to experience up to 1 megabit per second data download speed. This speed is sufficient to deliver access to the Internet for the mobile users at a quality level accustomed for the fixed Internet connectivity. 3G technology enhanced the numbers of mobile Internet users all over the world. In Lithuania mobile operators are increasing sales of mobile data cards. Mobile data cards currently available on the Lithuanian market is "Omniconnect" launched by UAB "Omnitel" and "Vodafone Mobile Connect" by UAB "Bite Lietuva" in partnership with global mobile market player Vodafone. In October 2007 UAB "Bite Lietuva" doubled the speed of mobile internet in the network by introducing Vodafone branded USB modem. USB modem together with Vodafone Mobile Connect data card is characterized by exceptionally fast data transfer up to 7.2 megabits per second. It is a real innovation if to evaluate according to the criteria presented by Capon, Farley and Hulbert (1988): 1) Vodafone Mobile Connect USB modem is first-tomarket delivering the highest mobile data seed compared to the competition; 2) the market for data is in the growing stage at the moment of introduction of a the product; 3) the novelty of implemented technologies is delivering the maximum speed on 3.5 generation network.

The analysis was performed trying to identify the impediments of this innovation development. Interview with the experts working in the field helped to reveal the preconditions for such innovative product introduction. USB modem allowing to achieve the exceptional data speed was introduced as a result of partnership with a global partner Vodafone Group. Vodafone Group is the world's leading mobile telecommunications company. This company runs subsidiary undertakings, joint ventures, associated undertakings and investments in Europe, the Middle East, Africa, Asia Pacific and the United States. Vodafone Group owns mobile subsidiaries operating under the brand name "Vodafone". The Group has also enters into arrangements with network operators in countries

where the Group does not hold an equity stake. Under the terms of these Partner Network Agreements, the Group and its partner networks co-operate in the development and marketing of global services under dual brand logos. UAB "Bite Lietuva" introduced Vodafone Mobile Connect USB modem as a result of the Partner Network Agreement. Partnership with a global player in the mobile telecommunications market allows access to the innovative products and services in a much faster way. Vodafone Group fosters innovative behaviour on a global scale. In September 2007 Vodafone Group had 241 million registered customers of mobile telecommunications companies in which the Group had ownership interests at that date (Vodafone Website 2007). The compilation of knowledge on a global scale allows to anticipate customers' needs and be prepared to satisfy them. Vodafone encourages people all over the world to submit the innovative ideas on products and services on the corporate Internet page. This is one of the methods for constant intelligence generation about customer needs and the actions of competitors. Partner companies like UAB "Bite Lietuva" are also involved into the innovation development process. Innovative approaches, products and services are presented during the regular Vodafone partner workshops and other networking events. These events help to facilitate internal intelligence dissemination and application to achieve better performance results. Vodafone Group is co-operating with universities and research institutes from different parts of the world. Innovative ideas are materialized by approaching mobile industry vendors, internet companies and media producing content for the mobile industry. Vodafone internal expertise coupled with the range of talents and knowledge within the global mobile is facilitating the generative learning process. As a result of the generative learning process innovative products and services are developed. Adaptive learning processes between Vodafone partners are shortening time to market for innovative products and allows to anticipate the needs of the local mobile market thus satisfying the main principles of market orientation in the mobile telecommunications industry.

Conclusions

- Analysis of the theoretical aspects of the market orientation and the practical application of the suggested principles in the mobile telecommunication market formed the basis for drawing the following conclusions:
- In the theoretical part, market orientation is studied as an organisation-wide process of customer and competitor intelligence generation, dissemination and coordinated response actions of all organizational units towards obtained information. These elements have been found to be closely related to the organizational learning stages.
- The proposed market orientation development principles of intelligence generation, dissemination and responsiveness to market intelligence supplemented with additional organizational learning principles are leading towards innovations.

- The generative learning principle suggested in this research can be used to ensure achievement of longterm goals and effective satisfaction of constantly changing market needs.
- The anticipation of the customer needs facilitates the development of innovative products or services satisfying both the needs of the customer and the goals of the company.
- Empirical research findings carried in the mobile telecommunication industry suggest that under saturated market conditions mobile operators can enhance service revenues by developing usage stimulating content applications and data services.
- The empirical research shows that the essential prerequisite of mobile data development is the increase of the data speed in the mobile networks which is achieved by deploying the newest technological standards and innovative products enabling enhanced data speed delivery to the customers.
- Investigation of the mobile data products offered by the operators in the Lithuanian market showed that the fastest mobile data speed connectivity is delivered by Vodafone Mobile Connect USB modem offered by UAB "Bite Lietuva".
- Analysis of the preconditions enabling the introduction of the innovative mobile data product to the market was carried by the means of the in-depth interview with the industry experts and demonstrated the following results:
 - the innovative product was introduced as a result of the partnership with Vodafone Group;
 - global partnership allows mobile operator to access to the global knowledge sources facilitating generative learning and leading towards the innovative products and services;
 - Vodafone Group partnership is structured in a way enabling faster intelligence generation and dissemination between partner networks all over the world:
 - by applying adaptive and generative learning principles mobile Vodafone partner network operators are able to anticipate customer needs, develop responsive actions and shorten the time of innovative product and service introduction to the market, thus satisfying the main principles of market orientation.

References

- Capon, N. Corporate Strategic Planning / N. Capon, J. U. Farley, J. M. Hulbert. New York: Columbia University Press, 1988. 482 p.
- Dalgic, T. Dissemination of Market Orientation in Europe // International Marketing Review, 1998, Vol.15, No 1, p. 45-60.
- Deng, S. Measuring Market Orientation: A Multi-factor, Multi-item Approach / S. Deng, J. Dart // Journal of Marketing Management, 1994, Vol.10, p. 725-742.
- Deshpande, R. Corporate Culture, Customer Orientation, and Innovativeness in Japanese Firms: A Quadrad Analysis / R. Deshpande, J. U. Farley, Jr. F. E. Webster // Journal of Marketing, 1993, Vol.57, p. 23-37.
- Deshpande, R. Organizational Culture and Marketing: Defining the Research Agenda / R. Deshpande, Jr. F. E. Webster // Journal of Marketing, 1989, Vol.53, p. 3-15.

- Dikčius, V. Vadovo įtaka pritaikant marketingo koncepciją įmonės veikloje. Daktaro disertacija, Socialiniai mokslai, Vadyba ir administravimas. Vilnius: VU leidykla, 2002.
- Fiol, C.M. Organizational Learning / C. M. Fiol, M. A. Lyles // Academy of Management Review, 1985, Vol.10, No 4, p. 803-813.
- Han, J.K. Market Orientation and Organization performance: Is Innovation a Missing Link? / J. K. Han, N. Kim, R. K. Srivastava // Journal of Marketing, 1998, Vol. 62 (October), p. 30-45.
- Houston, F.S. The Marketing Concept: what it is and what it is not // Journal of Marketing, 1986, Vol. 50 (April), p. 81-87.
- Jaworski, B.J. Market Orientation: Antecedents and Consequences / B. J. Jaworski, A. K. Kohli // Journal of Marketing, 1993, Vol.57, p. 53-70.
- Kohli, A.K. Market Orientation: The Construct, Research Propositions and Management Implications / A. K. Kohli, B. J. Jaworski, // Journal of Marketing, 1990, Vol.54 (April), p. 51-61.
- Kohli, A.K. MARKOR: A Measure of Market Orientation / A. K. Kohli, B. J. Jaworski, A. Kumar // Journal of Marketing Research, 1993, Vol.XXX (November), p. 467-477.
- Kotler, Ph. Marketing Management: Analysis, Planning, Implementation and Control. Prentice-Hall International, Inc., 1994. 816 p.
- Kurtinaitienė, J. Marketingo orientacijos lyginamoji analizė ir mobiliųjų telekomunikacijų rinkoje. Daktaro disertacija, Socialiniai mokslai, Ekonomika. Vilnius: VU leidykla, 2004. 234 p.
- Narver, J.C. The Effect of a Market Orientation on Business Profitability / J.C. Narver, S.F. Slater // Journal of Marketing, 1990, Vol.54, p. 20-35.
- Pranulis, V. Marketingas / V. Pranulis, A. Pajuodis, S. Urbonavičius, R. Virvilaitė. Vilnius: The Baltic Press, 2000. 470 p.
- Ruekert, R.W. Developing a Market Orientation: An Organizational Strategy Perspective // International Journal of Research in Marketing, 1992, Vol.9, p. 225-245.
- Sinkula J.M. Market Information processing and Organizational Learning // Journal of Marketing, 1994, Vol.58 (January), p. 35-45.
- Slater, S.F. Does Competitive Environment Moderate the Market Orientation-Performance Relationship? / S.F. Slater, J.C. Narver // Journal of Marketing, 1994, Vol.58, p. 46-55.
- Slater, S.F. Market Orientation and the Learning Organization / S.F. Slater, J.C. Narver // Journal of Marketing, 1995, Vol. 59 (July), p. 63-74
- Slater, S.F. The Positive Effect of a Market Orientation on Business Profitability: A Balanced Replication / S.F. Slater, J.C. Narver // Journal of Business Research, 2000, Vol. 48, issue 1, p. 69-73.
- Shapiro, B.P. What the Hell is Market Oriented? // Harward Business Review, 1988, No 66, November/December, p. 2-7.
- Webster, F.E.Jr. The Changing Role of Marketing in the Corporation // Journal of Marketing, 1992, Vol.56, p. 1-17.
- Webster, F.E.Jr. The Rediscovery of the Marketing Concept // Business Horizons, 1988, Vol. 31 (May-June), p. 29-39.
- 25. "Bitės" mobilusis internetas pasiekė rekordinį Europoje iki 7,2 Mbps greitį. 2 p. Prieiga per internetą: http://www.bite.lt/lt/about/media/pr/2007/show/3261
- RRT skelbia preliminarius elektroninių ryšių rinkos 2007 m. III ketvirčio duomenis. 1 p. Prieiga per internetą: http://www.rrt.lt/go.php/lit/RRT_skelbia_preliminarius_elektroniniu_r/543>
- 27. Total communications. 1 p. Prieiga per interneta: http://www.vodafone.com/start/innovation/r_d.html
- 28. We will be the communications leader in an increasingly connected world. 1 p. Prieiga per interneta: http://www.vodafone.com/start/about_vodafone/who_we_are.html

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Rinkos orientacija mokymasis ir inovacijų diegimas mobiliųjų telekomunikacijų trečiosios kartos tinkluose

Santrauka

Pastaraisiais metais įmonės orientacija į rinką yra traktuojama kaip viena pažangiausių (Houston 1986, Dalgic 1998, Webster 1988), kuria vadovaudamosios įmonės pasiekia gerų veiklos rezultatų (Narver, Slater 1990, Ruekert 1992, Jaworski, Kohli 1993, Kohli, Jaworski, Kumar 1993, Slater, Narver 1994, Deng, Dart 1994, Deshpande, Farley, Webster 1993, Han, Kim, Srivastava 1998, Slater, Narver 2000). Rinkos orientacijos

taikymas - mažai tirta sritis Lietuvoje. Galima paminėti V. Dikčiaus (2002) atliktus vadovų įtakos šios orientacijos vystymui tyrimus bei J. Kurtinaitienės (2004) atliktus tyrimus mobiliųjų telekomunikacijų rinkoje. Tačiau išlieka poreikis pasigilinti, kokie įmonės elgsenos elementai, sąlygoja marketingo orientacijos vystymą įmonėje.

Sėkmingą įmonės veiklą nulemia gebėjimas efektyviai patenkinti vartotojų poreikius. Pagrindinė tyrimo problema – kaip dinamiškoje rinkoje numatyti vartotojų poreikius, kad reikiamu momentu įmonė būtų pasiruošusi juos patenkinti.

Mokslinio darbo objektas – įmonės rinkos orientacija, užtikrinanti ilgalaikių tikslų realizavimą, tenkinant kintamus vartotojų poreikius.

Tyrimo uždaviniai: išskirti svarbiausius įmonės orientacijos į rinką aspektus ir pasiūlyti vartotojų poreikių prognozavimo būdus; atlikti mobiliųjų telekomunikacijų įmonių empirinį tyrimą bei pagrįsti gautus teorinius rezultatus

Šio mokslinio tyrimo metu kompleksiškai naudoti įvairūs metodai: atliekant teorinę analizę, naudota sisteminė lyginamoji mokslinės literatūros analizė, remtasi originaliais Lietuvos ir užsienio autorių teorinių ir empirinių tyrimų rezultatais; empirinio tyrimo duomenys buvo renkami, naudojantis ekspertinio vertinimo metodais. Šių tyrimų pagrindą sudaro pirminiai giluminio interviu metodu surinkti duomenys su mobiliojo ryšio srityje dirbančiai ekspertais.

Rinkos orientacija šiame straipsnyje analizuojama tiriant tam tikrus organizacijos kultūros bei elgsenos elementus. Jei rinkos orientacija sudaro organizacijos kultūros pagrindą, ji veikia organizacijos atmintį. Organizacijos atmintyje kaupiama informacija daro įtaką vadovavimo mechanizmui, kuris koordinuoja tokius organizacijos elgsenos elementus kaip informacijos rinkimas, platinimas ir reagavimas į gautą informaciją. Slater ir Narver (1995) pastebėjo daug panašumų tarp besimokančios organizacijos ir rinkos orientacijos įmonės. Šie mokslininkai rinkos orientaciją laikė kertiniu organizacijų mokymosi teorijos elementu. Rinkos orientacija ir organizacijų mokymasis susiję, nes apima šias esmines organizacijų elgsenos pakopas: pastovų informacijos apie vartotojų poreikius bei konkurentų veiksmus rinkimą bei informacijos platinimą ir vienodą informacijos interpretavimą siekiant pagerinti įmonės veiklos rezultatus.

Rinkos orientacijos kuriama aukščiausia vertė vartotojams atsiskleidžia per įmonės diegiamas naujoves. Tyrėjai Han, Kim ir Srivastava (1998) savo empiriniais tyrimais patvirtino, kad įmonių veiklos rezultatai yra susiję su rinkos orientacija ir inovacijomis. Rinkos orientacija padeda diegti inovacijas, kurios tampa pagrindiniu veiksniu siekiant geresnių veiklos rezultatų. Šiame tyrime organizacijų novatoriškumui įvertinti panaudotas Capon, Farley ir Hulbert (1988) netodas: vertinama, kada įmonė įžengia į rinką su naujomis paslaugomis, lyginant su konkurentais, kokia rinkos vystymosi stadija (augimas, branda ar mažėjimas) dažniausiai būna tuo metu, kai įmonė pristato savo paslaugas, įvertinama, ar įmonė diegia pačias naujausiais technologijas.

Inovacijos kuriamos naudojant tam tikrus išteklius, todėl rinkos orientacijos sampratos analizė atliekama pasitelkus išteklių perspektyvą. Ištekliai naudojami organizacijų mokymosi procese. Organizacijų mokymasis kuria naujas organizacines struktūras, kurios įgalina efektyviau panaudoti turimus išteklius. Renkant informaciją, dažnai remiamasi organizacijos atmintyje sukauptomis žiniomis bei stereotipinėmis organizacijoje taikomomis prielaidomis. Toks procesas atitinka Narver ir Slater (1995) sukurtą adaptacinio mokymosi apibūdinimą. Norint pasiekti geresnių rezultatų, nepakanka adaptacinio mokymosi procese gaunamų žinių. Turi būti peržengta adaptacinio mokymosi riba ir iš naujo vertinamos įmonės galimybės rinkoje, peržvelgiamos tikslinės vartotojų grupės bei konkurentų veiksmai. Taigi norint išvystyti rinkos orientaciją, kuri padėtų gerinti veiklos rezultatus, įmonėje turėtų būti taikomi generatyvinio mokymosi principai. Apibendrinus galima teigti, kad rinkos orientacija atspindi specifinius igūdžius, kurie geriausiai padeda suvokti ir patenkinti vartotoju poreikius.

Empirinis tyrimas, atliktas Lietuvos mobiliojo ryšio rinkoje, parodė, kad operatoriai veikia prisotintos rinkos sąlygomis, todėl pajamas didinti galima skatinant esamų mobiliojo ryšio abonentų vartojimą. Mobiliojo ryšio operatoriai gali padidinti pajamas iš teikiamų paslaugų, pasiūlydami vartojimą skatinančias aplikacijas bei duomenų perdavimo paslaugas. Pasaulinės tendencijos rodo, kad vartojimą didina mobiliojo ryšio duomenų perdavimo spartos didėjimas. Trečiosios kartos mobiliojo ryšio technologijos UMTS (angl. *Universal Mobile Telecommunications Service*) vystymasis tapo pagrindiniu postūmiu, didinančiu mobiliojo ryšio duomenų perdavimo paslaugų vartojimą. Trečiosios kartos mobiliojo ryšio technologijos HSDPA (angl. *High-Speed Downlink Packet Access*) panaudojimas įgalina pasiekti tokią mobiliojo ryšio duomenų perdavimo spartą, kuri prilygtų fiksuotojo ryšio duomenų perdavimui. Trečiosios kartos mobiliojo ryšio technologijų dėka sparčiai

daugėja šios mobiliojo ryšio duomenų perdavimo paslaugos vartotojų. Buvo atliktas siūlomų mobiliojo ryšio duomenų perdavimo sprendimų tyrimas Lietuvos rinkoje. Nustatyta, kad UAB "Bitė Lietuva" teikia sprendimą, įgalinantį pasiekti didžiausią mobiliojo ryšio duomenų spartą. Rinkai pasiūlyta "Vodafone Mobile Connect" USB jungtis suteikia galimybę pasiekti 7,2 megabitų per sekundę duomenų perdavimo greitį. Šis sprendimas atitinka Capon, Farley ir Hulbert (1988) novatoriškumo vertinimo kriterijus. Išsiaiškintos prielaidos, dėl kurių operatorius galėjo pateikti rinkai inovacinį sprendimą. Partnerystė su globaliu mobiliojo ryšio rinkos operatoriumi "Vodafone" suteikia galimybę naudotis žinių banku apie pasaulines vartotojų poreikių vystymosi tendencijas. Taigi informacijos rinkimo procesas vyksta žymiai greičiau, kai jame dalyvauja ne vienas, o keliasdešimt operatorių iš įvairių pasaulio šalių. "Vodafone" skatina inovacinių sprendimų vystymą, bendradarbiauja su universitetais bei mobiliojo ryšio įrangos gamintojais. Į šį generatyvinio mokymosi procesą įtraukiami ir mobiliojo ryšio partneriai, kurie įvairias metodais skatinami prisidėti prie naujovių kūrimo. "Vodafone" partnerystės dėka sukurti sprendimai daugelyje pasaulio šalių pasiekia vietinę mobiliojo ryšio rinką greičiau nei konkurentų. Tada įgyvendinami pagrindiniai rinkos orientacijos principai įgalinantys numatyti ir efektyviai patenkinti vartotojų poreikius.

Tyrimo metu gauti rezultatai leidžia pateikti tokias pagrindines išvadas:

- Elgsenos aspektu įmonės orientacijos į rinką procesai nagrinėjami kaip rinkos informacijos, susijusios su esamais ir būsimais vartotojų poreikiais, rinkimas, jos platinimas įmonės padaliniuose bei visos organizacijos koordinuotas reagavimas į gautą informaciją. Nustatyta, kad šie elgsenos elementai yra artimai susiję su organizacijų mokymosi pakopomis.
- Siūlomi rinkos orientacijos vystymo veiksmai, apimantys informacijos rinkimą, platinimą ir reagavimą į gautą informaciją, pritaikius generatyvinio mokymosi principus, skatina inovacijų diegimą.
- Šiame tyrime aprašomas generatyvinis mokymasis gali būti vystomas siekiant ilgalaikių tikslų bei ieškant efektyvių nuolat kintančių rinkos poreikių patenkinimo būdų.

- Vartotojų poreikių numatymas sudaro palankią terpę inovaciniams sprendimams ir paslaugoms diegti bei padeda patenkinti vartotojų poreikius ir pasiekti įmonės tikslus.
- Mobiliųjų telekomunikacijų sektoriuje atlikto empirinio tyrimo rezultatai rodo, kad, veikdami prisotintos rinkos sąlygomis, mobiliojo ryšio operatoriai gali padidinti pajamas iš savo teikiamų paslaugų, vystydami vartojimą didinančias turinio ir duomenų paslaugas.
- Empirinis tyrimas parodė, kad esminė prielaida mobiliojo ryšio duomenų vystymuisi yra duomenų perdavimo greitis, kuris didinamas diegiant naujausias technologijas bei inovacinius sprendimus, leidžiančius suteikti vartotojams didesnį duomenų perdavimo greitį.
- Atlikus mobiliojo ryšio duomenų perdavimo paslaugų tyrimą Lietuvos rinkoje, paaiškėjo, kad iš visų mobiliojo ryšio duomenų perdavimo priemonių didžiausią spartą užtikrina "Vodafone Mobile Connect" USB jungtis, kurią siūlo UAB "Bite Lietuva".
- Atliktas empirinis tyrimas, kuriuo nustatytos prielaidos, įgalinančios pateikti rinkai inovacinį duomenų perdavimo sprendimą. Giluminio interviu metodu buvo apklausti mobiliojo ryšio srities ekspertai ir gauti tokie rezultatai:
 - inovacinis sprendimas pateiktas rinkai partnerystės su mobiliojo ryšio grupe "Vodafone" dėka;
 - Partnerystė su pasaulinio masto mobiliojo ryšio rinkos žaidėju leidžia naudotis sukauptais globaliais žinių šaltiniais, kurie padeda vystyti generatyvinio mokymosi principus ir kurti inovacinius sprendimus bei paslaugas;
 - Partnerystė su "Vodafone" grupe leidžia greičiau surinkti informaciją apie pasaulinio masto tendencijas bei išplatinti mobiliojo ryšio partnerių tinkluose;
 - "Vodafone" partnerių mobiliojo ryšio tinklų operatoriai gali numatyti vartotojų poreikius iš anksto ir, taikydami adaptacinio bei generatyvinio mokymosi principus, pasiruošti atsakomuosius veiksmus poreikiams patenkinti. Taikant šiuos rinkos orientacijos principus, gerokai sutrumpėja inovacinio sprendimo diegimo laikas rinkoje.

Raktažodžiai: rinkos orientacija, organizacijų mokymasis, inovacijos, mobiliojo ryšio telekomunikacijos.

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