

Quality Strategies Applied on the Market of Integrated Security Systems

Nicoleta Andreea Neacsu

Anca Madar

"Transilvania" University of Brasov,

Faculty of Economic Sciences and Business Administration, Romania

deea.neacsu@yahoo.com

ancamadar@unitbv.ro

Abstract

Security is one of the basic needs of people, with integrated security systems becoming an important technology in today's society. Quality in the market of integrated security systems, involves the provision of products and services that meet the expressed or implicit needs of customers.

This paper analyzes the most important quality strategies applied in this market and the authors conducted a quantitative marketing research to identify the opinions and perceptions of potential customers regarding the quality of integrated security systems and their role in ensuring the security climate.

Key words: quality management, quality strategies, security systems, customer satisfaction, marketing research

J.E.L. classification: L62, M11, M31, Q56

1. Introduction

Over time, achieving a climate of security has been one of the most important concerns of any society. Any activity from the simplest operation to state policies certainly has a crucial security component, because a safe and quiet environment is the very basis of a stable organization.

Security is one of the basic needs of people, so the need and usefulness of security systems today is not in doubt. Integrated security systems (fire alarm systems, access and control systems) have become increasingly an important life-saving technology in many aspects, such as applications for detecting, monitoring and controlling any danger fire. Companies spend significant amounts of money annually on the installation and maintenance of integrated systems (alarm systems, fire protection systems in buildings) in order to protect properties and lives from unexpected events that could cause significant damage to the lives of employees or partners; damage to property. At the moment, there are several methods on the market that aim to improve daily in order to reduce costs as well as increase quality of the products and services offered.

The emergence of globalization has led to the emergence of a global market and thus led to a greater degree of competitiveness, so that an organization, in order to survive in the market, must provide products that meet all the needs of its beneficiaries. The market of integrated security systems has an extremely high degree of competitiveness, especially due to the large number of companies operating in this sector.

In order to analyze the quality strategies applied on the market of integrated security systems and how consumers perceive the quality on this market, the authors conducted a quantitative marketing research. The non-random sampling method was used, and the data collection technique was CAWI - Computer Assisted Web Interviewing. The research results show that most respondents did not install a security system at home, but want to purchase a customized but more expensive security system, and the purchase decision would be mainly influenced by specialists or consultants from specialized companies. Although the research has limits on the number of

respondents, its results can be the basis of new research, at a broader level, to better highlight how the application of quality strategies in this market have a key role in increasing the competitiveness of companies.

2. Literature review

Quality has existed in people's lives since ancient times. In the simplest way, the quality of a product or service can be defined as its ability to meet the expressed or implicit needs of customers, through all its characteristics. Some specialists make a direct link between total quality and total quality management, considering that the first is the goal, and the second the means of achievement or that the two are equivalent. There are also points of view which state that total quality management would in fact be an element of total quality. The level of quality of a product is given by the extent to which it meets the stated needs or expectations, which are generally implicit or mandatory (Madar, Neacsu, 2020, p. 689). It is increasingly important to accurately measure the level of quality in services (Gencer, Akkucuk, 2017, p. 951) and beyond.

Currently, organizations are striving to implement integrated management systems (quality, environment and occupational safety). The development of these systems continues. Environments change dynamically and organizations must react in order to survive (Pelantová, Slaichová, 2017, p.632).

Kélada (1991, p.27) considers total quality as a broader notion that includes meeting the needs of customers in several respects: the quality of products or services, delivery in the required volume, at the desired time and place, at a cost smaller, in the conditions of pleasant and efficient relations with them and of an administrative system without errors, starting with the elaboration of the order and until the payment of the invoice.

Related to the notion of total quality, the concept of total quality management (TQM) can be defined. This is a management philosophy that orients all the company's activities towards the customer in order to obtain long-term benefits. TQM ensures that customer requirements are met at minimum cost, with the involvement of all company staff. TQM is based on the idea that nothing is perfect, which means that everything can be improved, with the participation of all staff. In achieving total quality, all departments and all employees of the company have equal importance (Ilieş, 2003, p.79).

Security is the ability of a system to preserve its constructive-functional characteristics under the action of destructive factors that could endanger it for the environment and the lives of people at risk, or cause material, informational or moral damage (Roşca, 2012a, p.28). Security is the only concept that can meet the safety and stability requirements necessary for the proper functioning of systems in the current conditions. As an emerging process, security has as its main objective the stability of systems.

The integrated security system is the technical component of the response to specified threats and vulnerabilities (fire, natural disasters, burglary, vandalism, terrorism) in an objective that requires protection. From a structural point of view, a security system means the set of specific equipment, devices and subsystems, constructively and functionally interconnected, which fulfill protection functions for people and goods, in a given objective (Roşca, 2012b, p.55).

3. Analysis of quality strategies applied on the market of integrated security systems

The market for integrated security systems is a segment of the security industry and encompasses all productive activities and services that contribute to achieving a security climate within each company. Integrated systems are based on software platforms that offer multiple functions of configuration and graphical visualization, interconnection with each subsystem of the building, efficient control, centralization of events in a database.

Most of the key players are in the national and regional markets. Currently, in Romania, there are a considerable number of alternative competitors of larger or smaller dimensions. At national level, among the main competitors we can mention as the most important: UTI Grup (UTI Security & Fire Solutions), ICCO Sysytems (part of ICCO group), HELINICK company, Civitas PSG

(Polystart group), Schrack Seconet AG, Critical Technologies, Honeywell Life Safety Romania SRL, Avitech, General Security, Technosec and GTS.

In the market of integrated security systems, in order to be more competitive, companies apply various quality strategies.

The strategy of domination through quality is promoted by companies that assume the role of market leader. The company gains supremacy in quality through the levels of performance that its products or services obtain.

An example of a company that applies the strategy of domination through quality is the company Honeywell Life Safety Romania S.R.L. This company is the representative office in Romania of Honeywell Life Safety Austria GmbH, which was established in April 1989 and distributes products with the "ESSER by Honeywell" brands (fire detection and alarm systems, electroacoustic systems for voice alarm and public addressing). From the beginning, it had an international character, and today it is a company listed in Fortune and is present globally. The company also has an organizational culture that encourages meeting and exceeding quality requirements and regulations.

The strategy of differentiation by quality is based on the knowledge of the forms of manifestation and the level of achievement of the quality characteristics of the products or services. This strategy is used by UTI Security & Fire Solutions, which is part of UTI Grup, which includes a number of companies in Romania and which began its activity in 1990. The group started its activity with the establishment of Infocon SRL in 1990. The company is active in the IT field, being specialized in computer equipment. UTI Grup has developed in four areas, namely in security systems, traffic management, information and communication technology and construction. The company has expanded its business abroad, having subsidiaries both in Europe and in the Middle East. UTI Security & Fire Solutions is the largest company in the UTI group, with business in security and IT & C systems and separated from the UTI group in 2015.

UTI Security & Fire Solutions offers innovative solutions and quality services for the largest airports in Romania. Protecting critical objectives for national security requires a complex and dynamic approach, both in terms of the technical solution offered, but also in terms of quality, which is vital in a national objective of major importance. In implementing the strategy of quality differentiation, UTI has been constantly concerned with the development of solutions and technologies adapted to the increasingly diversified requirements for this type of objectives,..... UTI is the main provider of port infrastructure services and provides the entire process of construction, installation, commissioning and maintenance for complex projects in the airport field (passenger terminals, airport infrastructure, endowment with specific equipment - beaconing systems, parking systems, anti-terror security equipment, power supply, etc. - and their integration into computerized management solutions, which allow permanent control and efficient management of resources.

The strategy of diversification through quality, offers the company the possibility to capitalize on the research and development potential and different technologies, through which new markets are conquered and superior quality classes are offered in relation to the competition.

All companies that dominate the markets for integrated security systems apply this strategy. For example, Honeywell Life Safety Romania S.R.L started by selling fire detection and alarm systems. Today, however, the company also sells access systems, or anti-burglary systems, and integrated security systems.

The company UTI, initially sells construction alarm systems. Today the company offers complex solutions of integrated security systems such as traffic and public transport management, public safety solutions and emergency management centers, environmental protection solutions, urban rehabilitation solutions, eGovernment solutions, infrastructure underground communications.

ICCO Systems initially developed vehicle alarm systems and then construction alarm systems. Today the company is one of the leading systems integrators and solution provider in the field of security and communication systems.

The strategy of concentrating on a quality level is the characteristic of companies that cannot or do not want to change a certain level of quality but have the capacity to achieve it. This strategy was used by the LINX company from Braşov. Although the company has been operating since 1992, it was the first company to focus only on CCTV video surveillance systems, its main

customers being municipal authorities (especially due to the investments made by them considering that most projects were financed by European funds).

The global quality strategy is based on the concept of "total quality management" (TQM), which includes the concerns of managers and executors for quality assurance in all phases of product or service and capitalizing on the operation of the product to the user.

A good example of a company that applies the global quality strategy is ICCO Systems. This company is part of the ICCO group, which includes a series of companies from Romania and which started its activity in 1990. The company implements integrated security systems, and the most important projects are those projects that require "turnkey" solutions for electronic security (anti-burglary, fire, access control, video surveillance), structured voice-data networks, telecommunications and other installations. low and medium voltage. The global quality strategy within ICCO Systems means that a process system is applied within the organization which, due to the interactions of these processes, as well as their management, is considered a "process-based approach". Continuous improvement and the involvement of all employees in quality assurance has made the overall quality strategy benefit ICCO Systems.

The strategy focused on quality costs, expresses the company's intention to accept the allocation of financial resources to the activities involved in achieving quality, as well as to control the level of profit reduction due to defects removal costs. Expenditures on quality improvement will be made until the additional profit equals the cost of obtaining it. HELINICK company was established at the beginning of 1991, and the managers had as main objective the solution of the electronic security and safety problems faced by potential customers on the Romanian market. HELINICK has implemented a strategy focused on quality costs.

4. Research methodology

In order to determine the attitudes and perceptions of Romanian consumers regarding the quality of integrated security systems, a quantitative marketing research was conducted based on a sample of 220 respondents residing in Romania.

The main objective of the paper was to know the opinions and attitudes of Romanian citizens regarding the quality of integrated security systems and how they perceive the quality strategies applied in this market.

Considering the issue of the paper, the specific objectives of the research were:

- Identifying the perception of potential customers in Romania of integrated security systems (video surveillance, burglary, anti-fire) regarding the quality of these systems;
- Determining the strengths and weaknesses of the products and services provided by the market of integrated security systems in Romania;
- Identify the views of potential consumers on the standards needed for products and services in the integrated security systems market.

In the present paper, the sampling method being non-random, the voluntary sampling of the respondents was put into practice, based on a survey (Catoiu et al., 2009, p. 526). The method of survey conducted in the electronic environment was used to collect data. The questionnaire (which includes 22 questions) was designed on the Google Forms platform. Perioada în care a fost realizat acest studiu este februarie 2021 - martie 2021. Colectarea datelor s-a bazat pe un chestionar la care au răspuns 220 persoane. After collecting the information using the questionnaire, the processing of statistical data was done with the SPSS system (Statistical Package for Social Sciences).

Table no. 1. Descriptive information of survey participants

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18 – 24 years	26	11.8	11.8	11.8
25 - 39 years	76	34.5	34.5	46.3
40 – 54 years	84	38.2	38.2	84.5
55 – 65 years	34	15.5	15.5	100.0
Total	220	100.0	100.0	

Source: Authors' own research

The structure of the sample according to the sex of the respondents shows that 46.82% are men and 53.18% are women. Regarding the distribution according to age, the age range in which the respondents fall is 18-65 years (Table 1). The majority of respondents (75%) live in urban areas and 25% in rural areas.

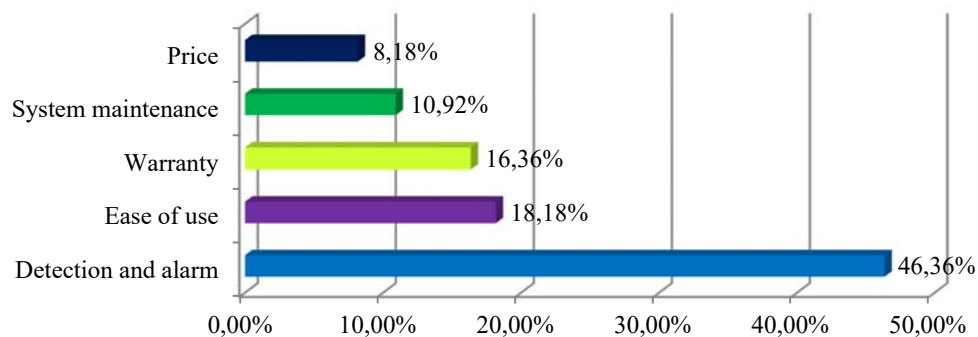
5. Findings

The main results of the research will be presented below.

The first question sought to identify whether the crime rate in the area where they live gives them a sense of security. To this question only 10.9% of the respondents consider that they live in an area with a maximum level of security, the majority considering that the area in which they live has a comfortable level of security (63.18%). This means that an integrated security system could be useful to improve the level of security. Of the respondents, 70.9% do not have a security or fire-fighting system at home and if they choose to install one, they will opt for both a video surveillance system and an anti-burglary alarm system.

The most important characteristics of a security or fire-fighting system from the respondents' point of view are the detection and alarm, respectively the capacity of the warning system of the owner and / or security company (46.36%), followed by the ease of use (18.18 %), warranty (16.36%), system maintenance (10.92%) and then the price (8.18%) (fig. 1).

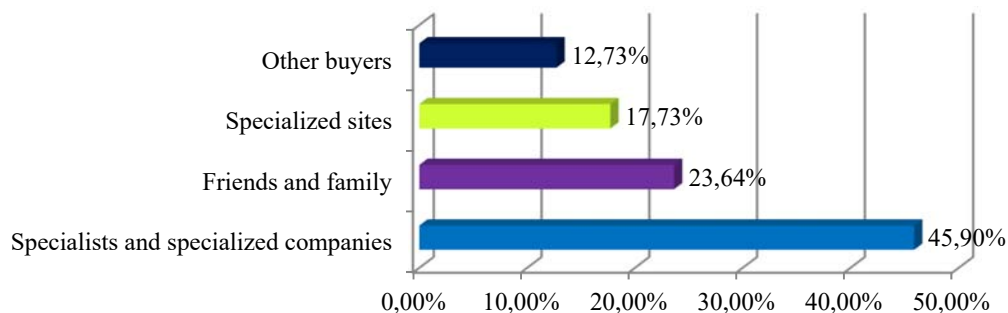
Figure no. 1. The most important features of a security system



Source: Authors' own research

Regarding the choice of a predefined or customized system for individual needs, most respondents would prefer to purchase a customized but more expensive system. The decision to purchase the respondents would be mainly influenced by specialists or consultants from specialized companies (45.9%), followed by friends and family (23.64%), specialized sites (17.73%) and other buyers (12.73%) (fig.2).

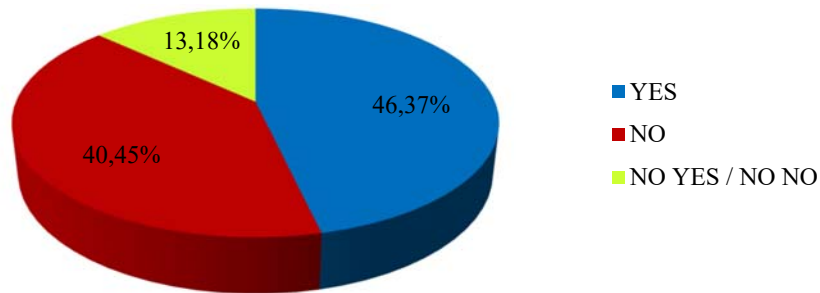
Figure no. 2. Who influences the respondents in the acquisition decision?



Source: Authors' own research

Most respondents believe that the most important role of an integrated security system is detection, followed by alarm and only then prevention, although most companies in the market for integrated security systems put prevention first. Regarding the risk of such a system harming privacy, 46.37% of respondents consider this to be true. The segment of those who do not believe this is 40.45%, and a small part of the respondents is undecided on this issue (13.18%) (fig.3).

Figure no. 3. The risk of a security system compromising privacy

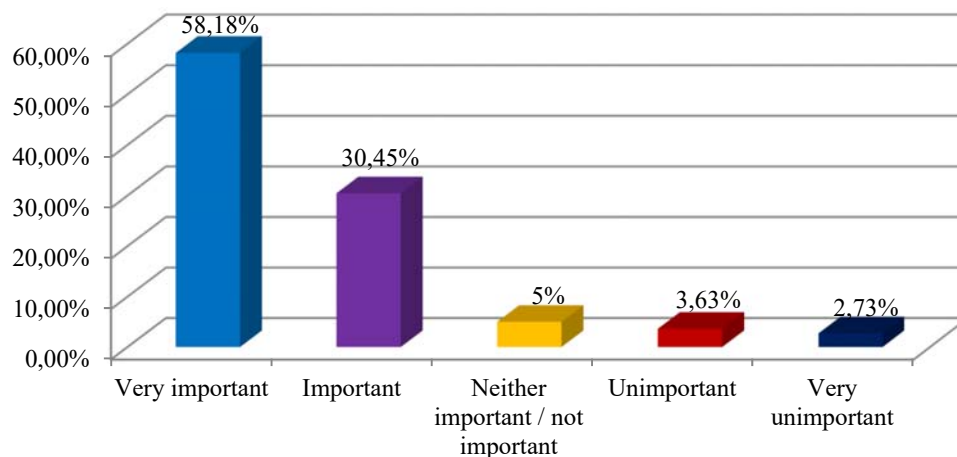


Source: Authors’ own research

The researchers wanted to know the opinion of the subjects on certain aspects of sustainability of these security systems. One such aspect is the energy consumption of an integrated security system.

Reduced energy consumption is considered very important for 58.18% of respondents, important for 30.45% of respondents, neither important / not important for 5% of respondents and unimportant and not important for 6.36% of respondents (fig.4).

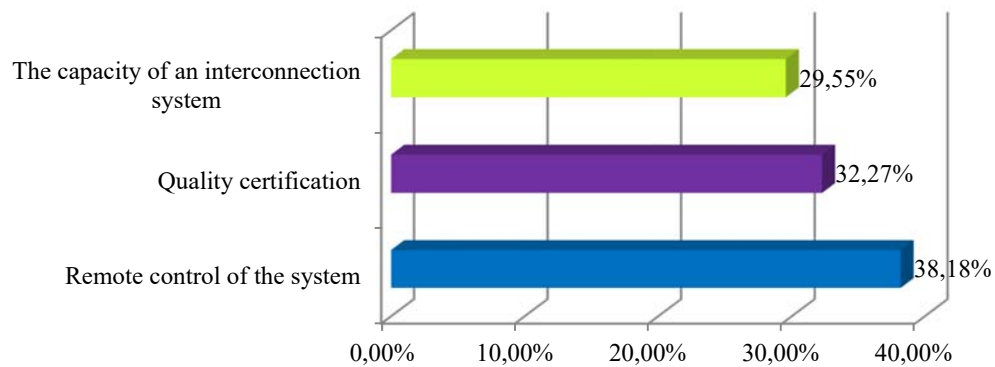
Figure no. 4. The importance of low energy consumption of an integrated security system



Source: Authors’ own research

The research wanted to identify which are in the opinion of the subjects the most important quality characteristics of an integrated security system. The majority of respondents (38.18%) indicated the ability of an integrated security system to be controlled remotely, through technology, followed by the quality certification of companies involved in the marketing and / or installation of an integrated security system (as well as the observance of the national or international quality standards of the component equipment of such a system) (32.27%) and of the capacity of an interconnection system that would allow it to interconnect with the already installed systems (29.55%) (fig.5).

Figure no. 5. The most important quality features of an integrated security system



Source: Authors' own research

The research results showed that for most respondents the quality and characteristics of an integrated security system were generally considered to be of significant importance throughout the process of installing such a system. Each stage of the complete process of installing an integrated security system is considered very important by most respondents.

6. Conclusions

In a world characterized by change, the future is a world of interconnectivity. In this context, companies face a new range of security risks which has generated the market for integrated security systems.

A successful company in this market is one that manages to offer products and services that satisfy and even exceed the requirements and needs of customers.

In the current economic context, quality has become a source of competitive advantage, and organizations that want to achieve excellence must perceive quality as something natural, natural, just as, without human or financial resources, an economic organization cannot function.

The interest shown by the top management teams of the organizations towards quality is mainly due to the threats generated by real or potential market losses, determined by non-quality. Quality is seen as a strategic contribution that cannot be neglected to achieve competitiveness. Increasing the company's competitiveness through a quality-focused strategy can ensure long-term success.

7. References

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