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Application of the self-checkout system in Kosovo

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Abstract

Kosovo is a new state which passed the period under occupation, under a system where the market economy did not dominate, to pass to the period of war, liberation, emergency system. During this process, Kosovo has marked concrete steps in the application and use of innovations and information technology in order to reduce costs, increase efficiency and effectiveness at work and reduce the customers waiting in front of cash registers in major markets in Kosovo. The Self-checkout system will facilitate the procedure of long waits during payments in the trade chains; it will also make consumers feel more advanced and more productive when buying products in the markets. The application of the Self-Checkout system is not a new concept as it is used in many countries with developed economies, while in Kosovo there is a shortage of it, i.e., this system is almost not used at all, and as a result of non-use, long queues are created, i.e. for the purchase of products we have to wait in queue and waste time, while time is money, while this system in these pandemic circumstances with COVID-19, is very convenient one because there will be not contact with individuals.

Keywords: self-checkout, purchase, products, technology, innovation, market.

1. Introduction

This project is about self-service in markets (Self Check Out), which will help market owners and consumers.

In recent years, the trade of the economy is advancing every day more and more. Rising labor costs, a lack of skilled workers in developed countries, and a preference for personalized shopping experience are some of the other factors driving market growth. Moreover, the ongoing transformation of retail to reduce costs and the need to increase productivity also contributes to the adoption of these systems (SCOs) in the retail industry (Hameed, Chai, & Rassau, 2020).

For example, the Self-check out system (SCO) provides shoppers with the convenience of scanning, packing and paying themselves at checkout, thus reducing additional staff interference. It simultaneously improves its retail operations and enhances the shopping experience.

For firms in developing countries compared with firms in developed countries, innovations and innovative technologies are much more important, to create new markets and to take part in existing markets (Cebeci, Ertug, & Turkcan, 2020).

The application of digital technologies in this product (SCO) that we will introduce has an advantage in understanding the high levels of improvement and ease of day-to-day work nowadays. This product will not only facilitate the procedure of long waits during payments in the markets, it will also make consumers feel more advanced and more productive when buying products in the market.

Some of the reasons why countries with developing economies and rural areas risk being left behind in the digitalization process are poor technological infrastructure, high technology costs, low levels of e-education, etc (Jeff L. Gaol, 2019).

2. Goals and Objectives of the SCO

Reduction of long queues and prevention of physical contacts, through SCO will reduce long queues and there will be no waiting to make payments, there will be opportunities for keeping distance and there will be no contact with individuals as well as the privacy of consumers during the purchase will be preserved.

Reducing costs, the best thing about automated customer service is that its cost drops over time, unlike employees, companies do not have to pay much per month and are not afraid that employees will leave work and training new workers requires time and cost. The Self Check Out support system also helps the customer support team by reducing the requests they receive every day, as customers tend to solve their own problems instead of queuing to contact the company. This significantly reduces costs as well as supports agents, as they will not have to answer similar questions often.

Higher speed, the primary benefit of Self Check Out and self-assistance is that it allows customers who are in a hurry to buy the products they need faster. The efficient payment system of this service has enabled customers to escape from long queues, especially during the hours when the influx of people who frequent the markets is large, as well as during the holiday season. This is why a vast majority of consumers want to see more service automation across stores.

Increasing revenue, with automation companies can improve their revenue stream, as it allows them to have fewer employees to pay. Additionally, when a Self Check Out replaces manual

processes, existing customers can order at a faster rate and see it as a competitive advantage in the market. It also enables companies to attract new customers more easily and once the customer base grows. Sales increase naturally, in addition to giving companies revenue, we will also have satisfied customers because nothing makes a customer happier than a fast and efficient service.

The basic research question posed in this paper is:

Can the application of Self checkout have a positive impact in Kosovo?

H_A : The application of self checkout in Kosovo can have a positive impact.

H_0 The application of self checkout in Kosovo can't have a positive impact.

3. Methodology

Sample determination and data collection procedure

The methodology of this study is of the quantitative type. Data collection is of primary and secondary nature, because the collection of this data is based on references, school literature and published scientific articles as well as the questionnaire conducted in the field. Data collection was done with a structured questionnaire prepared for this purpose that was completely anonymous. To complete the questionnaire, permission was first obtained from the respondents and this permission will be referred to in the appendices.

For the realization of this research, i.e. for data collection, first the permission from the respondents was obtained as well as the consent for participation in this research by them, through a sheet in which the respondents will confirm (non) participation. After completing the consent form by the respondents, the questionnaires were completed by them.

The data we have collected from the self-created form of an online questionnaire as well as conducted in the field, are an expression of the thoughts or attitudes of some local markets. A total of 42 different managers or self-owners of markets answer this questionnaire.

1. How many consumers enter your super market during the day?

50 – 100 consumers
101 – 200 consumers
201 – 500 consumers

2. How many active cashiers do you have?

1 – 5 cashiers
5 – 10 cashiers

3. Do you think that your customers lack a faster service and less physical contact?

YES
NO
MAYBE

4. Do you think that the digitization of the cash register can increase your income in your super market?

YES
NO
MAYBE

This study has given us many answers, starting from the positive ones which means the advantages of applying SCO in Kosovo. From the results we can conclude that the companies where all respondents work, understand quite well the importance of this innovation. From the collected answers it has been confirmed that:

H_A: The application of self checkout in Kosovo can have a positive impact.

Most respondents are of the opinion that the application of self check out can have a positive impact on their workplace.

5. Commenting on research results

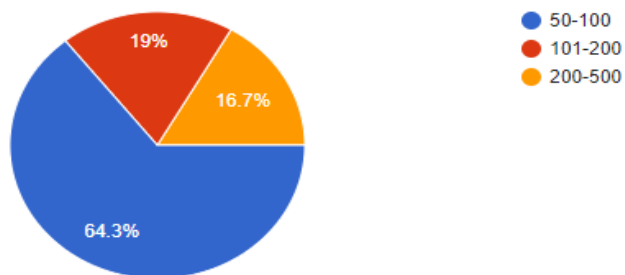
Descriptive analysis of results

Within the chapter of statistical analysis will be analyzed all the elements of the research questionnaire, in order to test the research questions and hypotheses raised. In this part of the research will be presented the results from the part of the questionnaire with specific data. In the first question about the interest of customers in the market, how many customers enter their super market during the day, the results were:

Graph 1. Customer entry during the day.

How many consumers enter your super market during the day?

42 responses

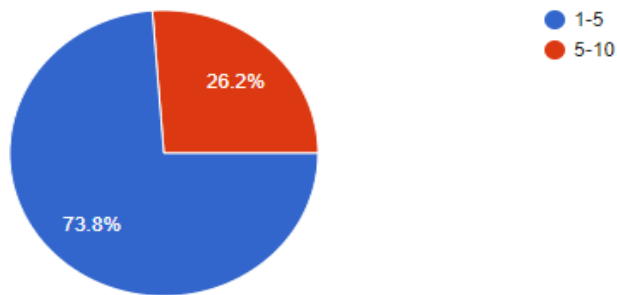


From the graphic presentation of the above data, we see that 64.3% of respondents stated that they have 50-100 customers during the day, 19% of respondents stated that 101-200 customers during the day, while 16.7% stated that they have more than 200 customers.

Graph 2. Active cash registers.

How many active cashiers do you have?

42 responses

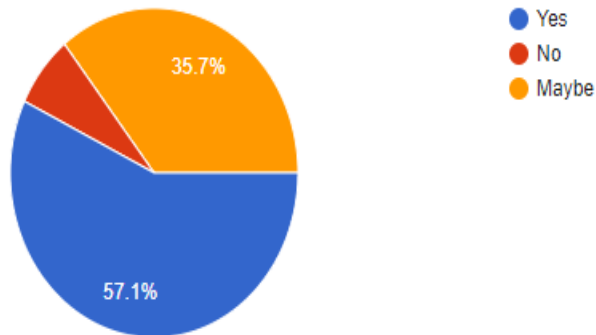


From the graphic presentation of the above data, we notice that 73.8% of respondents stated that they have 1-5 cash registers in the model, while 26.2% stated that they have 5-10 cash registers.

Graph 3. Fast service with less physical contact

Do you think that your customers lack a faster service and less physical contact?

42 responses

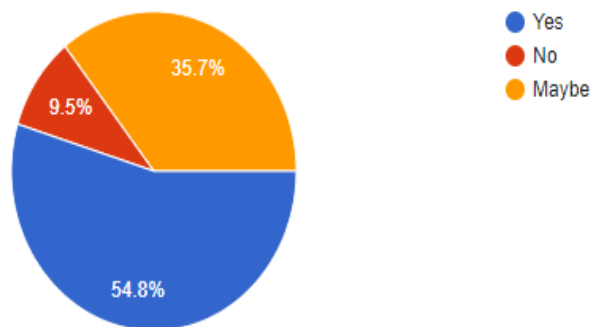


From the graph above we see that 57.1% of respondents think that clients lack a faster service and with less physical contact, 35.7% answered with maybe, while the rest deny.

Graph 4. Digitalization of the cash register

Do you think that the digitization of the cash register can increase your income in your super market?

42 responses



From the presentation of the data, we notice that 54.8% of the total number of respondents have stated that the digitalization of the cash register can increase the income in their super market, 35.7% answer probably, while 9.5% have stated negatively regarding this issue.

This study has given us many answers, starting from the positive ones which means that the advantages of SCO may be necessary for the markets in Kosovo. From the results we can conclude that the digitalization of the SCO cash register and innovation in the Kosovo market will fill many shortcomings of our markets. From the collected answers it has been proven that: the arrival of the product self check out will affect the increase of performance and the increase of income in the markets.

The digitization of technology in the products we use every day is successful for today's industries or companies that exist in our environment. To achieve a dominant position over other industries, and as an added benefit, helps them to control the transformation of the industry to some extent (Litfin & Wolfram, 2009). The effectiveness of self check out will be used for high technological developments, such as the implementation of digitalized processes which helps companies to improve their positive image and create credibility in their customers (Matanda & Leung, n.d.).

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6. Conclusions and Recommendations

The research of this study shows that the digitalization of technology in the products we use every day is successful for the industries or companies that exist today in our environment. Achieving a dominant position over other industries, and as an added benefit, helps them control the transformation of the industry to some extent.

If we want to start applying technology digitalization to this everyday product, e.g. self-control, then we recommend that we be well prepared to face the challenges while the benefits will be:

1. The effectiveness of self-control will be used for high technological developments,
2. Implementing digital processes that help companies improve their positive image, and
3. Build trust with their customers.

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