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CONTEMPORARY ISSUES IN ECONOMIC AND FINANCIAL ANALYSIS VOLUME 101

CONTEMPORARY ISSUES IN BEHAVIORAL FINANCE

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SERIES EDITOR’S INTRODUCTION

The Emerald book series: Contemporary Studies in Economic and Financial Analysis, edition CSEF101 includes studies on Contemporary Behavioral Issues, mainly by authors invited from participants in the International Applied Social Science Congress (C-IASOS) held in Demre (Myra), Antalya, Turkey (hometown of Saint Nicholas – Father Christmas) between April 19–21, 2018.

The first authors (Chapter 1) study the relationship that exists between risk and control in consumer behavior. Herein the authors present the feeling of consumers when faced with different perceived risks, which in this context is defined as lack of control. They then show how businesses can adjust these perceptions to give a feeling of control to consumers and use this knowledge for marketing purposes.

Next in Chapter 2, the author analyzes the employment of Machine Learning techniques for predicting future states of economy data. He uses Artificial Neural Networks (ANNs), Adaptive Neuro-Fuzzy Inference System (ANFIS), Dynamic Boltzmann Machine (DyBM), Support Vector Machine (SVM), Hidden Markov Model (HMM), Bayesian Learning on Gaussian process model (BG) (Brahim-Belhouari & Bermak, 2004), Autoregressive Integrated Moving Average (ARIMA), Autoregressive Model (ARM) (Poggi et al., 2003), and K-Nearest Neighbor Algorithm (K-NN) for his prediction techniques. He reveals positive results in terms of predicting economy data.

Volatility spillover between the BIST100 Index and the S&P500 Index is the topic of the third chapter. The authors here carry out an assessment of the interdependence between stock markets with the aim of examining the shock and volatility spillover between the S&P500 index from the US Stock Exchange and the BIST100 index from the Stock Exchange Istanbul stock indices. Results using the variance causality test indicate that there is a bi-directional volatility spillover between S&P500 index and BIST100 index. When the return spillover between the markets is examined, a one-way spillover from the S&P500 index to the BIST100 index emerged. Diagonal BEKK model results show that each market is affected by its own news (unexpected shocks) and volatility. Furthermore, the volatility is persistent for both markets. These findings demonstrate that the US market and the Turkish market interact with each other.

The author of the fourth chapter carries out a literature review on brand reputation and discusses the way this influences consumer behavior. She highlights studies by Anholt – GMI Brand Index (2007), which evaluates the perception of countries as brands and measures the power and appeal of a nation’s brand image. She notes that this approach can be helpful to understand behavior and decisions of visitors to the destinations and to improve their competitiveness.
Authors in Chapter 5 investigate the augmented reality (AR) applications from the perspectives of brand trust and purchase intentions of customers. They note that with the development of information technologies and the increase in the number of new generations of technology-based consumers, significant changes in the promotion and positioning strategies implemented in consumer markets are needed and are carried out using applications such as AR. In fact, in this chapter the authors aim to determine whether there was a difference between customers’ brand trust and purchase intentions regarding real experiences of the consumers at the store, experiences about AR applications, and traditional advertisements. It is determined that it will be beneficial to develop strategies in AR applications to enrich the real experience.

In the sixth chapter the author aims to determine the effect of women cooperatives as an employment policy in Turkey. In this context, she carries out a literature review on the effects of women’s cooperatives movement on the social and economic development and participation of the labor force by also looking at sustainability development goals. She found that cooperatives are an opportunity for the employment of women and highlighted that women cooperatives are a contribution to the sustainable development goals. Moreover, she notes that women’s cooperatives can be regarded as an effective policy for increasing women’s employment in regions with traditional structures.

The authors of the seventh chapter study the impact of financial literature on cognitive biases of individual investors in relation to financial investments. They find that (i) financial literacy leads to differences in cognitive biases and (ii) that cognitive biases of individuals who do not receive finance education are different from individuals who receive finance education and professionals in the business world.

A literature review of retirement planning is carried out by the authors of Chapter 8. They highlight that proper retirement planning starts by looking at the level of income an individual is likely to continue receiving at retirement if they were to take no action, then compare this to what they would need to lead the lifestyle they desire. They review the traditional expected behavioral economic theories, which many are accustomed to when interpreting financial matters (i.e., rational behavior) and compare this to the various studies and articles found in literature. They then dig into retirement planning in Malta and the behavioral obstacles to proper planning and how they are tackled in different European countries.

The author in Chapter 9 used the data from a primary survey to analyze the consumer cash and cashless payments in Poland. They carried out a comparative analysis on the 2018 cash and cashless payments in Poland in the background of the previous surveys carried out in Poland and the other EU countries. Results show that although cashless payments are a dynamic group of products that Polish consumers use more and more often, the position of cash is still strong.

Marketing communications and experiential marketing in the context of AR is the topic of the 10th chapter. Authors here carry out an experiment using experimental AR mobile applications to market/communicate paint products
and compare this with attitudes towards competing brands not using AR mobile applications. The targeted participants included consumers, painters, and interior designers in Istanbul. Their findings highlight the importance of digital applications on the influence of intention of buying consumers and marketing communication.

The author of the 11th chapter focuses on the dual relationship between export and import, export and foreign exchange rate, and import and foreign exchange rate by using causality methods. He finds that there is only one causality relationship between export and import with the direction flow being from import to export.

A study of herd behavior on the Borsa Istanbul is the theme of Chapter 12. Here the authors investigated whether herd behavior, in the period between January 2011 and December 2017, was present in Stock Exchange Istanbul. Using regression analysis, they show that results obtained support previous works on the subject.

In Chapter 13, the author determines the factors affecting the internet banking preferences of the bank customers and the relationships between the demographic characteristics of bank customers and internet banking usage in the Usak city of Turkey. Seven factors were found to be effective in using internet banking. These are “effect of social circle,” “benefits of internet banking,” “the usefulness of internet banking,” “speed and time savings,” “ease of use and cost,” “the ability to use the internet and the advantages of internet banking,” and “the suitability to life and work style.” In addition, it was determined that there is a significant relationship between the demographic characteristics of bank customers and the internet banking usage.

The authors of Chapter 14 ask the question “who wants to be a millionaire?” and studied cognitive biases such as certainty effect, isolating effect, and overconfidence effect on the Turkish version of Who Wants to be a Millionaire? television show during the period between September 2013 and April 2015. They found evidence for both certainty and isolation effects.

In Chapter 15, herd behavior and its effects on the purchasing behavior of investors were studied. It is shown through cases exemplified, that investors do not act rationally in their financial decisions and take irrational decisions by following the majority.

In this penultimate chapter (Chapter 16) continues building on Chapter 8, with the same authors aiming to determine what affects Maltese individuals’ behaviors when it comes to retirement planning. With the use of a self-administrated online survey, they gathered data which was later analyzed using a mixed approach to determine that of the most prominent of behaviors, procrastination, myopia, and inertia were observed.

The final chapter (Chapter 17) studies how government governance helps world stock market development. This chapter offers an empirical examination of the impact of World Governance indicators (WGIs) on stock market development. The Empirical findings show that (a) a negative association exists between Voice and Accountability and stock market development; (b) a positive association exists between each of political stability, government effectiveness, regulatory
quality, rule of law and control of corruption, and stock market development for most World’s regions stock markets; (c) both Voice and Accountability and Political Stability indicators are the major influential indicators for the stock market development across world stock markets.

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CHAPTER 1

RISK AND CONTROL IN CONSUMER BEHAVIOR: A DISCUSSION

Erdoğan Koç, Çağatan Taşkın and Hakan Boz

ABSTRACT

Consumers are faced with many new products. In almost every product category it is seen that there are more alternatives than provided in previous years. This situation may cause consumers to feel uncomfortable/uncertain, especially about new products. Therefore, since they perceive this uncertainty, customers want to be in control. Control is one of the ways to help customers to decide on perceived risky situations.

The main purpose of the study is to explain the effects of the risk and control drive on consumer behavior and determine how businesses reduce the risk that consumers feel.

It is critical for enterprises to increase their brand awareness in order to reduce consumers’ risk perceptions and increase their controls (cognitive, behavioral, and decision) during purchasing decisions. Also, it will be useful for them to focus on activities increasing brand loyalty. They can especially carry out marketing activities allowing consumers to try new products or providing money back guarantees. Moreover, in order to reduce the risk perception and increase control by the customers, making the promotional contents of the product understandable and simple without hidden factors will contribute in a positive way.

Keywords: Risk; cognitive control; behavioral control; decisional control; consumer’s buying behavior; neuromarketing
1. INTRODUCTION

The ability to feel and escape from bad situations is vital for the survival of all living organisms. Human beings live and gain experiences from life. They learn what to use with care or avoid according to their life experiences. They also have the choice to change things in life in order to reduce or eliminate risk. Every innovation or advancement in life results from some kind of risk being taken. Thus, it is important for policymakers to balance the benefits and the risks. From the beginning of humankind, risk has been an ever-present issue within the lives of people. An extensive body of literature exists regarding risk within fields such as marketing, consumer behavior, recreation/leisure, tourism, economics, psychology, decision sciences, management, insurance, public policy, and finance. Each of these fields takes a different approach to the study of risk and examines different aspects (Carroll, 2009, pp. 34–35).

2. DEFINITION OF THE RISK CONCEPT

The concept of risk is mostly seen as the alteration of outcomes, their possibilities, and their subjective values. Risk can be defined as the situation where a decisionmaker has an a priori knowledge of both the consequences of alternatives and their probabilities of occurrence. Risk can be viewed as an expectation of loss. This perspective is different from the traditional one that treats the risk concept as “probability times the pay-off” that has origins to the disciplines of mathematics and economics. It is a psychological-driven focus for risk. Thus, the concept of risk can be defined as an expectation of loss which is subjectively determined; the greater the probability of this loss, the greater the risk thought to exist for an individual (Mitchell, 1999, pp. 167–168).

The usage of risk concept is increasing in various disciplines and the definition of risk may differ from one discipline to another. However, the most general assumption shared is the distinction between reality and possibility. The concept of risk is related to the possibility that the future can be changed by human activities. The risk concept is related to the term “expectations” that refers to knowledge and experiences of the past. They can be developed in a formalized, more or less conscious way, referring to statistical techniques, or in a less formalized manner, referring to everyday knowledge and personal experiences (Zinn, 2008, pp. 3–4).

2.1. The Risk Concept in Consumer Behavior

The concept of risk or perceived risk was originally proposed by Bauer (1960) in consumer behavior research. Formally, perceived risk is defined as “a combination of uncertainty plus seriousness of outcome involved.” The perceived risks are regarded as “the expectation of losses associated with purchases and acts as an inhibitor to purchase behaviour” (Bauer, 1960).

The main problem with consumer behavior is the choice under uncertainty. Because the result of a choice cannot be known until the usage of the product or services, the consumer is facing various risks. The risk perception is considered as
a major aspect of consumer behavior since risk is usually thought to be difficult and painful because it may cause stress which must be handled by consumers. Consumers’ self-esteem would affect the amount of perceived risk and the way of dealing with risks in a particular choice situation and the way chosen to handle risks (Taylor, 1974, p. 54).

After Bauer’s (1960) proposition, the concept of perceived risk was used to explain consumers’ behavior. Consumers may worry about their buying decisions because they may not be sure about their purchase decisions whether they will satisfy them or not. That’s why, the concept of perceived risk is a function of uncertainty and is consumer uncertainty about the loss or gain in a consumer buying transaction (Forsythe & Shi, 2003, p. 869). The concept of perceived risk occurs in consumer buying decisions because consumers’ actions may face negative results (Littler & Melanthiou, 2006, p. 433).

In other disciplines, the concept of risk is related to choice situations involving both potentially positive and potentially negative outcomes; however, the focus has primarily been on potentially negative outcomes only in consumer behavior. This is an important difference between risks, as understood in marketing, versus how it is understood in other disciplines (Stone & Grønhaug, 1993, p. 40).

Research on perceived risk has grown since Bauer’s (1960) advocacy of risk-taking behavior as a possible measure of consumer attitude toward a purchase. Perceived risk is considered to be a situational and personal construct. Research on perceived risk has laid emphasis on two components: the likelihood of a loss and the subjective feeling of unfavorable results. However, there is a lack of a universally agreed definition (Pires, Stanton, & Eckford, 2004, p. 119).

If individuals perceive risk, this means that they are expecting some kinds of loss. In particular, psychology research includes a relation between risk concept and gambling behavior. The perceived risk is measured by various models in the literature. The perceived risk theory was introduced in 1960 from the perspective of consumer behavior. According to Bauer, consumers’ behavior involved risk because their purchasing actions “will produce consequences which he cannot anticipate with anything approximating certainty, and some of them which at least are likely to be unpleasant.” Since 1960, many consumer types of research confirmed that perceived risk is one of the important factors in consumer behavior (Bauer, 1960).

As noted above, risk is one of the significant factors influencing consumer behavior and is perceived “in terms of the probability of an outcome and the importance of cost associated with the outcome.” Perceived risk can be seen in all purchase decisions especially if the outcome is uncertain. Under these conditions, consumers may postpone or cancel their purchase and this means that they perceive the existence of risk (Pappas, 2017, pp. 197–198).

Perceived risk is closely related to the potential negative outcome of one’s decision. If the consumer believes that he or she cannot control the purchase outcomes or the consequences of a wrong decision would be important and serious, a risk may appear (Mohseni, Jayashree, Rezaei, Kasim, & Okumus, 2018, p. 625). Consumer behavior is influenced by many factors one of which is the level of uncertainty and anxiety consumers feel regarding the purchase decision. This can be identified as perceived risk (Lacey, Bruwer, & Li, 2009, p. 99). According to
risk perception can be defined as the individual judgment of the likelihood that a consequent loss could occur and the seriousness of its likely consequences (Yeung & Morris, 2006, p. 295). It is known that people try to avoid or minimize their losses as much as possible when they are about to make decisions on risky situations (Sung & Jo, 2018, p. 1009).

2.2. Perceived Risk as a Multi-dimensional Concept

A risk is a multi-dimensional concept that has two components such as certainty and consequences. In addition, it can be classified into five categories: functional risk, physical risk, financial risk, social risk, and psychological risk (Yüksel & Yüksel, 2007, p. 704). However, according to Mohtar and Abbas (2015), the most common categories of perceived risk include financial risk, performance risk, physical risk, psychological risk, social risk, and convenience risk (p. 5). The definitions of each component are given below:

- **Financial risk**: This risk is defined as the financial loss to a customer. It includes the possibility that the product may need to be repaired, replaced, or the purchase price refunded (Sweeney et al., 1999, p. 81).
- **Performance risk**: This risk refers to the perception that a product or service may not perform as needed or expected (Brosdahl & Almousa, 2013, p. 5). In other words, it can be defined as the risk associated with an inadequate and/or unsatisfactory performance of the product (Rijsdijk & Hultink, 2003, p. 207).
- **Physical risk**: This risk is related to the possibility of the risk that the purchased product physically harms the consumer (Chu & Li, 2008, p. 214).
- **Psychological risk**: This risk can be defined as anxiety and/or uncomfortable feelings arising from anticipated post-behavioral emotions such as worry and tension (McLeay, Yoganathan, Osburg, & Pandit, 2018, p. 521).
- **Social risk**: This risk can be defined as the potential loss of esteem, respect, and/or friendship offered to the consumer by other individuals (Laroche, McDougall, Bergeron, & Yang, 2004, p. 376).
- **Convenience risk**: This risk addresses a loss of time and effort associated with achieving satisfaction with a purchase (Murray & Schlacter, 1990, p. 54).
- **Overall risk**: The chance of the purchase of a product or service ending up with a general dissatisfaction of someone (Pires et al., 2004, p. 120).

According to Featherman and Pavlou (2003), perceived risk has been classified into two main categories – (a) performance and (b) psychosocial. The category of performance includes three types: (i) economic, (ii) temporal, (iii) effort; and the category of psychosocial includes two types – (i) psychological and (ii) social. In addition, perceived risk has six dimensions: (1) performance, (2) financial, (3) opportunity/time, (4) safety, (5) social, and (6) psychological loss (Featherman & Pavlou, 2003, p. 454).

Perceived risk may occur in a purchasing situation. It may depend on many factors. It may depend on external factors. However, also the level of perceived risk is related to the consumer him/herself. In literature, these two-factor groups
are called extrinsic (product/store characteristics) and intrinsic (involvement, past experiences) factors. If there are negative feelings toward a product, this will increase the level of the perceived risk. On the contrary, the risk perceived by consumers tends to decline as the consumer experience with the product or service increases. In addition, the personality of the consumers also influences the level of their risk perception (Lacey et al., 2009, p. 99).

When the consumer is faced with a buying situation, he or she perceives a risk because of his or her decision to buy that product or service. Since first introduced in 1960, perceived risk concept has been explored in many disciplines. It is a function of uncertainty and consequences. For instance, there can be uncertainty inherent in the product, there can be uncertainty in place and mode of buying, there may also be some consequences such as financial and psycho-social, and the consumer may feel subjective uncertainty because of his or her buying experience (Stern, Lamb, & MacLachlan, 1977, p. 312).

2.3. Risk Reduction Strategies

The concept of perceived risk refers to the truth that consumers are generally uncertain about their buying decisions’ consequences. Thus, marketing managers try to seek competitive advantages by reducing consumers’ perceived risk. Risks can be totally different according to product types, lack of information, and prior experience (Havlena & DeSarbo, 1991, p. 927). Consumers use various risk reduction methods to minimize their risks about buying decisions. These methods include seeking information from different sources and regarding brands as a quality guide, etc. In addition, marketing managers have methods such as money back guarantees, warranties, and free trials (Jiuan, 1999, p. 165).

Consumers mostly think of products for their consequences. Consequences refer to the results which occur when consumers purchase and consume the products. Consumers may think of possible positive and negative outcomes after the usage of products as potential benefits or risks. Benefits refer to positive outcomes consumers try to get when purchasing products while perceived risks are seen as unwanted outcomes that customers desire to avoid when they purchase products. People generally try to avoid buying products with higher risks. If the perceived risk of a product seems to be low, then consumers would be more likely to try and purchase it (Termprasertsakul & Kulsiri, 2011, p. 12).

Consumers tend to reduce risk in their buying situations especially if they perceive a risk related to the unexpected outcomes. If the risk perception of the consumers is higher than their minimum tolerance levels, then they will try to reduce their risks. Common examples of risk reduction strategies are buying branded or quality-assured products or buying from trusted places. However, the use of these strategies depends on the risk perception tolerance of the consumers. In literature, there are many risk-reducing strategies. Some of these risk-reducing strategies, such as brand loyalty, product testing, store image, special offer, money-back guarantee, shopping around, expensive product, celebrity endorsement, and family/friends’ recommendation are frequently used in general purchases where products could possibly under-perform (Yeung, Yee, & Morris, 2010, pp. 307–308).
The risk-taking theory proposes that a great number of consumers face a certain amount of uncertainty when they are deciding to buy a product or service. Consumers try to reduce the number of risks they face by taking some steps. They may buy certain brands that they trust or collect information from web or opinion leaders. Usually, consumers cannot affect the consequences of using a brand. Instead, they may change the uncertainty levels about those consequences. There are three ways of reducing the risks or to learn about what consequences there may be in the future from various brands. The first one is information seeking from the social environment such as family, friends, and reference groups. Second, they may consider what alternatives they have before they make the purchase. Lastly, they may choose to rely on the brand image, which is a helpful asset of a brand that helps creating brand loyalty (Sheth & Venkatesan, 1968, p. 307).

The consumer trust can be defined as the function of a degree of risk involved in the situation. Trust is considered to be highly important, especially in economic transactions because of its function to reduce the risks of being a victim to opportunistic behaviors. Trust has been also seen as a risk reliever by consumers for gaining an advantage against sellers in channel relationships and inter-organizational transactions (Pavlou, 2003, p. 79).

When consumers are about to make a decision they face two aspects of risk. The first one is the uncertainty about the outcome and the second one is about the consequences of their choice. Both types of risks are existing in almost every situation related to choices but their importance varies from one situation to another. The amount of each type of risks in a specific choice affects the decisions made by the consumers to reduce those risks. The first type of risk can be reduced by gathering information and using them wisely. The risk about the consequences can be handled by reducing the amount or by delaying the choice. When consumers face a choice, the risk can be interpreted as the possible amount of loss consumers may get. The loss can be social, functional, economical, or a combination of them (Taylor, 1974, p. 54–58).

3. THE CONCEPT OF CONSUMER CONTROL

Kahneman and Tversky (2013) indicate that people give more importance to not losing rather than winning when they perceive risk and uncertainty against a particular stimulus (i.e., about a product). Similarly, Miller (1979) states that people must minimize the maximum danger to be motivated (taking action or buying a product), because a risky and uncertain situation is a threat to people in terms of surviving. In such cases, people generally tend to control more (Hagen, Bujdoso, & Nedela, 2015). Reducing consumers’ perceived risk and uncertainty is vital for enterprises as today’s consumers are faced with too much stimulus during the day (Ding & Keh, 2016; Koç & Boz, 2017; Perlmuter, Scharff, Karsh, & Monty, 1980). According to Harari (2015), risk and uncertainty should be reduced and the future should be predictable in order to enable people to take action through the time periods from hunting and gathering to modern age’s people.
Control behavior has a vital importance in consumer consumption and purchasing decisions. Consumers have a higher tendency to control especially in the service sector. Consumers feel more risk and uncertainty with the content and performance (because service is abstract) of a service (i.e., education quality) rather than a tangible good (Laroche et al., 2004). According to Zeithaml, Bitner, and Gremler (2012), intangibility, heterogeneity, and inseparability of services increase risk and uncertainty. That situation then may lead consumers to need more control over services.

The “Control Theory” was proposed by Averill (1973). Averil (1973) states that people tend to require three different types of control. These are decisional control, cognitive control, and behavioral control.

(1) **Decisional control** means that customers can choose from different alternatives in the process of product purchase, without feeling pressured by other people (Koç, 2017). That control expresses the customer’s power on getting what he/she wants among different options at the time of purchasing a product. For example, when you go to a store, the salesperson comes near you and constantly interferes because of the fact that they do not want to leave the decision control to the customer. In that case, the customer may feel uncomfortable and leave the store and not return to the store again.

(2) **Cognitive control** is associated with customers’ motivation for eliminating or reducing the possibility of experiencing negative situations (Faranda, 2001; Koç, 2017). In addition, it is possible to indicate that cognitive control can be related to the customer’s ability in forecasting psychological, sociological, or functional benefit that will be obtained from a product after its purchase. An example of cognitive control can be that customers are able to be sure that there will be no extra cost after buying a product. For example, a commitment made to a customer buying a mobile number (service) that s/he will receive bills not exceeding a certain price. This will satisfy the related customer’s need for cognitive control. Additionally, giving back a product without a fee after a certain period following its purchase will meet with the customer’s cognitive control motive. Finally, allowing customers to cancel their holiday before its date without a fee will also meet with the cognitive control motive (Koc, 2016).

(3) **Behavioral control** defines the situation that a person can free himself/herself from a purchase process in order to eliminate any possible negative experience that may occur in the future (Faranda, 2001; Koç, 2017, p. 150). For example, a person is able to cancel a (money oriented) task on an ATM when s/he has a doubt is associated with the behavioral control. That situation may occur even when a person has a doubt about some bank staff. Customers may psychologically hesitate giving up at the last stages of a task when carrying this out at a bank branch. However, it is difficult to have such a feeling at the ATM. Therefore, the customer has all control at the stages of the services over ATMs. Whenever he/she feels risk or uncertainty, he/she can easily cancel the whole service. Similarly, customers have the decision control when they shop over the internet. In that case, the customer can cancel the payment.
until he/she clicks on the confirmation button after he/she even puts products into the basket. When a product is bought from a store, the seller can feel psychological pressure in not to stop the transaction. But that situation is not applicable over the internet.

In addition to Averil’s (1973) theory, Langer (1975) developed the Illusion of Control Theory. According to that theory, people give a higher value to the things that they have (ideas, goods, and religion) (Koç, 2017, p. 152). The illusion of control is a frequent bias in this context (Houghton et al., 2000). An illusion of control bias occurs when people believe that they used their own skills and abilities when successful no matter if this happened as a chance (Houghton, Simon, Aquino, & Goldberg, 2000; Langer, 1975).

3.1. Control as a Coping Strategies Against Risks

Studies regarding control behavior have been carried out for more than 50 years. While studies on control behavior are focusing more on the field of psychology, limited studies are reported in the field of marketing (Koç & Boz, 2017). Customer participation has become an important part of enterprise strategy for control drives of customers (Vargo & Lusch, 2004). Customer participation in production is very important for control behavior. According to the study by Koc (2016), customers enjoy the taste of their products (e.g., salad) more than the products by the service enterprises when they participate in the preparation process of the product. In the study, a detailed description of each customer’s favorite salad was noted. Then, after the customers took a salad from the kiosk, the same salad was prepared by a service enterprise. Although salads were prepared similar to the recipes explained by the customers, the related customers enjoyed the salad they prepared more. According to the results of this study, it is possible to indicate that customers’ control motive is satisfied more when they take part in the production process.

Strategies for reducing the illusion of control are important also for enterprises selling physical products. Kahneman and Tversky’s (2013) “Prospect Theory” is important for such enterprises. According to the Expectations Theory, and as noted above, people care more about not losing rather than winning. A similar trend applies to the control theory. The need for control is associated with reducing losses and increasing earnings. Because of that, expressing the 60% success rate instead of a 40% death risk for patients at the hospitals helps customers to decide.

The service sector is abstract because of its structure and because of that, the risk that customers feel increases the need for control. Information that customers have before the purchase will also be less. That situation will increase the customer’s risk feeling and his/her uncertainty motive. Risk and uncertainty improves people’s control desire (Hagen et al., 2015). Because of that, it is required that strategies are created, which are control based and can reduce customers’ risk motive. For example, an open buffet in the restaurants is a good application for improving customers’ decision control. In this way, a customer will decide which food to have himself/herself. Because he/she can have as much as he/she wants, uncertainty on the portion amount will be eliminated (Koç & Boz, 2017). It can