



The Relationship between Consumer Life Orientation and Panic Buying Behaviour in the COVID-19 Pandemic Process

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Abstract: The impact of COVID-19, which was declared a pandemic in 2020, has greatly decreased. However, although its lethal effect on humans is low, different variants continue to emerge. The purpose of this research was to examine the relationship between consumer life orientation and panic buying behaviour during the COVID-19 pandemic. Additionally, the effect of consumer life orientation on panic buying behaviour through buying impulsivity, temporal focus, and purchasing risk perception variables was also investigated. In this research, a relational research technique was used to examine the relationship between consumer life orientation and panic buying behaviour. The universe of the research consists of consumers who shop in the retail sector. Since it was not possible to reach all of these consumers within the scope of the research, the research was carried out with the convenience sampling method. In this context, using the data of the online study with n=422 participants, the relationships between the variables were tested, and the hypotheses put forward were theoretically tested. In this research, a questionnaire explaining the latent variables of consumer life orientation, buying impulsivity, temporal focus, purchasing risk perception and panic buying behaviour was used. In the analysis of the data, descriptive statistics, confirmatory factor analysis (CFA) and structural equation modelling (SEM) were performed using statistical package programs. In line with the research findings, it has been determined that the consumer life orientation variable has a statistically significant and moderate effect on panic buying behaviour through buying impulsivity and purchasing risk perception variables (p < 0.001) during the COVID-19 pandemic. On the other hand, it was determined that consumer life orientation did not have a statistically significant effect on panic buying behaviour through the temporal focus variable (p>0.005). These findings, which show that life orientation affects purchasing impulsivity and panic buying behaviour through purchasing risk perception, show that there is a positive correlation between consumers' life orientations and purchasing tendencies. In other words, the COVID-19 Pandemic process caused a change in the life orientations of consumers in psychosocial terms; emotions such as stress, anxiety and uncertainty triggered panic buying behaviour. In similar studies to be conducted in this direction, the relationship between consumer decision-making styles and panic buying behaviour can be examined. In addition, research can be conducted on consumer groups other than the retail sector.

Keywords: consumer behaviour; epidemic; lifestyle; marketing; purchasing.

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1. Introduction. The COVID-19 pandemic, which affects all countries of the world, has also significantly affected Turkey. With the emergence of the pandemic, various measures have been taken in Turkey. The measures implemented with the motto "Life Fits into Home" initiated by the Ministry of Health have caused significant changes in the daily lives of citizens. As a result of these practices, there have been changes in the consumption habits of citizens (Duygun, 2020). These developments have also affected the life orientations of consumers. In fact, it is possible to summarize some of the changes encountered in the lives of consumers during the pandemic period as follows: In this period, online education and working at home increased, the volume of mobile retailing increased, and there was an increase in the demand for building materials, hobby products and personal care products. In addition, the time spent in the office and, accordingly, the number of food orders decreased (Deloitte, 2020). All these developments were also reflected in the psychological state of consumers and caused the majority of consumers to be pessimistic. For example, although social distance plays an important role in preventing the spread of the pandemic, some consumers perceive social distance as a form of social exclusion that negatively affects their lives. Therefore, there are concerns that social isolation from COVID-19 causes anxiety, depression and stress (Holmes et al., 2020).

It would not be a mistake to expect that these negative effects of COVID-19 on human psychology will also affect consumer behaviour. In fact, many scientists claim that there will be significant changes in consumer behaviour after the pandemic. In this respect, researching the changes in consumer behaviour caused by COVID-19 is an important issue, and studies are needed in this area. Consumers are essential elements of market competitiveness, growth and economic integration. As a result of the economic instability caused by COVID-19, consumer behaviour inevitably transforms. However, the answer to the questions of how long this transformation in consumer behaviour during the COVID-19 pandemic will take or what its size will still be remains a mystery (Mehta et al., 2020).

In normal periods, rational consumers first evaluate the necessity and possible consequences of the purchase they will make with a result-oriented approach. They then integrate the information they have obtained and use it in making a purchase decision. On the other hand, there may be a tendency toward irrational consumption in high-risk periods such as crises. In fact, the risk-as-feelings theoretical perspective revealed that there will be a tendency toward irrational consumption in high-risk situations perceived as a crisis (Slovic et al., 2004). Another study has shown that the greater the perceived threat of disease or an epidemic is, the greater the likelihood of panic buying (Ross, 2023). Sharp increases in demand for a product lead to widespread shortages. This causes additional panic buying and a further increase in demand. This pattern of behaviour can have an exponential effect, as stockpiling resources from panic buying can become contagious (Thomas, 2014). As a result, the stress and uncertainty experienced by consumers at the time of their decision can cause panic buying (Loxton et al., 2020).

The COVID-19 pandemic has increased the stress level of consumers. It also increases psychological problems by affecting psychological resilience factors such as optimism and pessimism (Arslan et al., 2021). In one study, it was concluded that participants who faced a pessimistic situation were more risk averse and less patient than those who faced an optimistic or balanced situation (Harrs et al., 2021). A large survey conducted in the early stage of the COVID-19 outbreak in Europe showed that most respondents were overly optimistic about the risk of infection (Raude et al., 2020; Dolinski et al., 2020). In a study conducted in the UK, it was concluded that participants believed that the probability of experiencing controllable and uncontrollable risks related to COVID-19 is low in the short term, but they were relatively more pessimistic when considering the next year (Asimakopoulou et al., 2020).

Another factor that determines the impact of the COVID-19 pandemic on consumers' life orientations is the level of information. In fact, numerous studies have revealed that information density has a significant impact on the emergence of group impulse buying behaviour during the pandemic (Chen et al., 2022). Jovančević & Milićević (2020) examined the relationship between the level of knowledge gained and anxiety about COVID-19 and found that knowing more leads to higher levels of fear. In the same study, it was observed that optimists who trust others and do not believe in conspiracy theories about COVID-19 adopt preventive measures to protect themselves but do not stockpile. On the other hand, pessimists who do not trust others and believe in conspiracy theories both adopt preventive measures to protect themselves and stockpile. As a result of the study conducted by Satish et al. (2021), it was determined that consumers developed stocking behaviour during the COVID-19 period, fearing the unavailability of basic necessities. In the same study, it was also stated that there will be a change in the purchasing patterns of consumers in the case of quarantine during a possible future crisis. Another factor through which the COVID-19 pandemic has had an impact on consumers' life orientations is social media platforms. It is possible to find many studies in this field. For example, the results of a study conducted by Afifah et al. (2021) showed that social media has a significant effect on information. The main reasons for this are the speed of the spread of social media, the high level of influence on the people in the network, and the constant updating of news. In this way, social media acts as a platform for people in the network to exchange information about the ongoing pandemic.

On the other hand, when the theoretical framework on panic buying is analysed, it is frequently observed that panic buying is associated with disasters. Historically, Honigsbaum (2013) reported that panic buying first emerged during the Spanish flu epidemic of 1918. Subsequently, panic buying also occurred when the severe acute respiratory syndrome (SARS) epidemic became more effective in Hong Kong in 2003 (Cheng, 2004). On the other hand, panic buying behaviours occur in natural disaster situations (Wai & Yuen, 2010) or in unnatural disaster situations such as nuclear crises (Li et al., 2017). For example, after Hurricane Katrina (2005) and Hurricane Sandy (2012) in the USA or an earthquake in Japan (2011), it has been observed that consumers tend to panic buying behaviour (Cinar, 2020). Similarly, this study was carried out with the hypothesis that consumers tend to panic buying behaviour during the COVID-19 pandemic.

Consumer psychology controls buying behaviour. Therefore, the pandemic has the potential to act as a breaking point in consumers' lifestyles and to change their habits over time (Danziger, 2020). Considering that the COVID-19 pandemic is an extraordinary situation, it is predicted that individuals' lifestyles and, accordingly, their purchasing behaviour will change significantly. In the literature, many studies have been conducted on consumer behaviour during previous epidemic periods, the fact that such research has not been conducted during the COVID-19 pandemic period makes this study unique. Considering that the pandemic has greatly affected consumers psycho-socially, it is considered that emotions such as stress, anxiety and uncertainty also trigger panic buying behaviour. In this regard, it is important to determine the relationship between consumers' life orientations and panic buying behaviours during the COVID-19 pandemic.

This study contributes to the academic literature on consumer life orientation and panic buying in three distinct areas. One of the original contributions of this research was an empirical assessment of the role of consumer life orientation in the COVID-19 pandemic process as a driving force affecting panic buying behaviour. The second is to use consumer life orientation to determine whether it increases panic buying behaviour in an unusual situation, such as the COVID-19 pandemic process, rather than treating consumer life orientation as part of buying behaviour. The third and final phase entails assessing the relationship between consumer life orientation and panic buying behaviour under COVID-19 uncertainty and the predictive effect of consumer life orientation on panic buying behaviour in the context of an unusual situation (COVID-19); it is important to note that a moderate effect is present.

The act of providing relevant information and constructive comments to business managers, marketing professionals, key decision makers of brands operating in the consumer goods sector and researchers working in this field is extremely important due to the unique nature of the study. This study is the first in Turkey to investigate the impact of consumer life orientation on panic buying behaviour, where COVID-19 uncertainty is considered an unusual factor. Accordingly, this research fills a theoretical and empirical gap by helping marketing professionals' benefit from changes in consumer life orientations and achieve better results by providing a better understanding of unusual situations such as COVID-19. Recent research has shown that increased exposure to COVID-19 information during and after the pandemic has a direct impact on panic buying behaviour and that such unusual situations also affect consumer life orientation (Sherman et al., 2021). It is necessary to make important inferences from the results obtained from studies on consumer life orientations and purchasing behaviours in extraordinary situations such as epidemics, disasters and crises. This will provide important contributions to both the theoretical and practical frameworks.

In this context, the aim of this research is to examine whether consumer life orientation has a significant effect on panic buying behaviour through buying impulsivity, temporal focus and purchasing risk perception variables, which are subdimensions of purchasing orientation. In this vein, the universe of the research consists of consumers who shop in the retail sector. However, since it is not possible to reach all consumers shopping in the retail sector within the scope of the research, the research was carried out with a purposeful sampling method, which is a nonprobabilistic sampling method. The results of the research were limited to April 2021-May 2021, the dates when the research data were collected. The analysis of the data was carried out with structural equation modelling (SEM).

2. Literature Review.

2.1. Consumer Life Orientation

Seligman (2007) emphasized that the way individuals explain events will affect their approach to events, their motivation, and their search for alternative solutions. The author dealt with the way individuals explain events in three dimensions: permanence, pervasiveness and personalization. According to the author, pessimistic individuals who give up easily believe that the causes of bad events that happen to them are permanent and that these bad events have universal causes. These individuals also make it personal in case of any failure. On the other hand, optimists who resist bad events believe that the causes of bad events are temporary and that the causes of bad events are situation specific. These individuals also believe that good events will enrich many things in their life. Many variables affect people's optimism and pessimism attitudes. These include physical health status (Tennen & Affleck, 1987; Scheier & Carver, 1987; Davidsdottir, 2004), state of mind status (Bedi & Brown, 2005), behavioral problems (Baker et al., 2005), compliance problems (Jackson et al., 2005) and loneliness (Rokach, 2004). It is useful to mention the effect of loneliness on people due to its high impact on human psychology and its potential to affect large masses. Loneliness can harm human love and socialization. It can reduce creative and effective energy in people and prevent them from revealing their energy. Loneliness, which is a very strong emotion, can lead people's lives if it cannot be controlled. In addition, loneliness that cannot be faced and overcome can create harsh and depersonalized people. On the other hand, loneliness not only impairs health but also causes poor quality of life (Rokach, 2004). Demir (1989) emphasized that the difficulties experienced by individuals in their social life push them into loneliness, reduce their relationships with society, and isolate them from society over time. Loneliness is also associated with negative feelings such as general dissatisfaction, unhappiness, shame, and not being able to rest. Loneliness arises as a result of a behavioral disorder, and this behavior disorder can be overcome by providing the necessary guidance for the individual (de Minzi & Sacchi, 2004).

All the developments observed in human life can cause people to have a more optimistic or more pessimistic life orientation. According to the Turkish Language Association, optimism is the general name for teachings that believe in the progress of humanity and that all situations and conditions will improve. Pessimism, which is the opposite of optimism, has been defined as a worldview that considers everything from the worst side, sees every situation as dark and always expects the worst. Scheier & Carver (1985) emphasized that optimism defines a positive life orientation, whereas pessimism defines a negative life orientation. There are two different approaches to the concept of optimism: optimism for the future and optimism as a form of explanation. Optimism for the future: Scheier and Carver consider optimism a personality trait that is different from the situations and conditions in which the individual lives. Among the elements that shape human behaviour, expectations for the future are important. Having an optimistic attitude in the face of the negativities experienced will enable the individual to adapt more easily and to be resistant during the problem. In fact, studies have shown that optimism and life orientation are important factors in the formation of a person's characteristic features (Scheier & Carver, 1987). Optimism as a form of explanation: In this approach, the optimistic individual explains an event with external, changeable and special factors, while the pessimistic individual explains it with internal, unchanging and general reasons (Metalsky et al., 1982). Optimism acts as an effective buffer against the development of mental disorders, and the transition from pessimism to optimism empowers individuals with rational choices and decisions and controls high-risk behaviours. Ingenious interventions aimed at promoting optimism can guide individuals in choosing the optimistic type of thinking and provide coaching for a new set of cognitive skills (Setia et al., 2021). Many recent studies have shown that being able to look at life positively overlaps with the concept of optimism, and people who can look at life positively can achieve success in many areas. In fact, a study concluded that there is a positive relationship between optimism and academic achievement (Aydin & Tezer, 1991). Factors that may cause psychological problems, such as being depressed and constantly anxious, which negatively affect individuals' psychology, can be eliminated by increasing individuals' optimism. In other words, optimism should be considered an important element that determines life orientation. There are positive and statistically significant relationships between optimism and both happiness and life satisfaction (Sapmaz & Dogan, 2012). In this respect, increasing the level of optimism can contribute to increased happiness. In addition, an increase in the level of optimism can be considered a preventive factor for many mental problems triggered by a negative perspective, especially depression and anxiety.

Stress caused by COVID-19 has a significant effect on optimism/pessimism, psychological balance and psychological problems (Arslan et al., 2021). In fact, Schou-Bredal et al. (2021) reported that optimists are less worried about the COVID-19 pandemic than pessimists are, and their mental and general health

conditions are better during quarantine. Druica et al. (2020) concluded that optimism is dependent on one's reported health status and increases with age. On the other hand, among the other results of the study, in addition to gender and education level, the option to work from home is one of the factors affecting optimism. Franke & Elliott (2021) found that relational factors such as alienation and trust affect individuals' levels of optimism or pessimism in overcoming the COVID-19 crisis. Ayşe et al. (2020) reported that the general optimism level was greater than the general pessimism level during the COVID-19 pandemic. On the other hand, a study by Genc & Arslan (2021) showed that COVID-19-related stress was negatively related to feelings of hope and optimism.

One of the important factors determining the impact of the COVID-19 pandemic on the life orientations of consumers is their level of knowledge, and many studies in this field exist. Hammad et al. (2021) evaluated the level of misconception of consumers about COVID-19 depending on whether they had previously attended a COVID-19 conference, their education level, and whether they were employed in the medical field. As a result of the study, it was determined that participants who participated in all these activities and worked in the field of medicine had fewer misconceptions about COVID-19. In addition, it has been observed that women are more misled than men in terms of information shared within the scope of COVID-19. Another result of the study is that the use of social media is an important factor affecting the probability of false belief (Hammad et al., 2021). In another study, participants who read an optimistic scenario about the COVID-19 pandemic were less likely to stock up and were less willing to break social distancing rules than participants who read a pessimistic scenario (Sheetal et al., 2020). Sherman et al. (2021), on the other hand, concluded that greater exposure to COVID-19 information has a direct effect on panic buying, whereas it has a weaker and indirect effect through increased anxiety. An important effect of the COVID-19 pandemic on consumers' life orientations is the increased use of social media platforms. This surfing mentality brought about by social media has led to different life orientations: an increase in misleading advertisements, the development of home entertainment, an increase in online shopping, a nonverbal life, etc. (Naeem, 2021). Another important effect of social media during the pandemic period is its potential to lead to common group behaviours. Like during the COVID-19 pandemic, group behaviour can be contagious. People derive a sense of safety and security from people with whom they identify. This trend is exacerbated during times of uncertainty such as the pandemic (Danziger, 2020). On the other hand, there may be factors that mediate the relationship between consumer life orientation and panic buying behaviour. The "temporal focus", "buying impulsivity" and "purchasing risk perception" variables are among these items. Therefore, these variables are mentioned below:

Buying Impulsivity: Specifically, buying impulsivity is defined as a consumer's tendency to buy spontaneously without thinking (Rook & Fisher, 1995). Impulsive buyers are more likely to act on stimuli and respond positively and promptly. In extreme times, impulsive behaviour is almost entirely stimulus-driven, and the impulse to buy turns into a direct, immediate physical response (Rook & Fisher, 1995). Even impulsive buyers sometimes do not respond to every impulse purchase request. This is because various factors can suddenly warn consumers to be cautious and, as a result, interrupt the transition from impulsive emotion to impulsive action (Peterson & Kerin, 1979). In this regard, the research hypotheses determined conceptually based on the literature are as follows:

H₁: Consumers' life orientation has a significant effect on buying impulsivity during the COVID-19 pandemic.

Temporal Focus: This is defined as the allocation of temporal focus to the past, present and future. This three-period definition reflects the idea that people can shift their attention between different time periods and that focusing on one period does not necessarily prevent thinking about the other two periods. This perspective contradicts the approach put forward by studies that classify people as past-oriented, present-oriented or future-oriented (Harber et al., 2003). At any given moment, people can consider one time zone to exclude other time zones. However, cumulatively, people develop general tendencies to focus to varying degrees on specific time periods, which is called temporal focus. The development of a general, stable temporal focus is influenced by a person's childhood experiences in the early years, national culture, socioeconomic status, and parental beliefs. In addition, temporal focus is influenced by sociocultural factors and extraordinary circumstances (Lins & Aquino, 2020). For example, individuals may be socialized by their national culture to focus on the past or by their parents to focus on the future (Trommsdorff, 1983). In this vein, the research hypotheses determined conceptually based on the literature are as follows:

H₂: Consumers' life orientation has a significant effect on temporal focus during the COVID-19 pandemic. Purchasing Risk Perception: The concept of risk perception is defined by Dowling & Staelin (1994) as the consumer's perception of the uncertainty and negative consequences of purchasing a product or service. There are various factors that affect risk perception. These factors can be evaluated in three categories: "productrelated factors", "personal factors" and "situational factors". However, it is possible to come across different approaches in terms of factors affecting risk perception. For example, Mitchell (1998) stated that the factors affecting risk perception may differ depending on the person, product, shopping style and culture. According to another approach, risks perceived by consumers should be evaluated from a behavioural perspective. The risk headings evaluated in this context are as follows: "Perception of risk arising from previous experiences", "perception of risk caused by lack of information", "perception of risk caused by financial impossibilities", "perception of risk caused by social evaluations" and "perception of risk due to lack of trust". As a result, it is important to determine risk perception, which has a significant effect on the purchasing behavior of consumers. In this context, it has been questioned whether there has been a change in the purchasing behaviors of the participants in the COVID-19 period, individually, in the household, in the immediate environment and in Turkey (Lins & Aquino, 2020). In this vein, the research hypotheses determined conceptually based on the literature are as follows:

H₃: Consumers' life orientation has a significant effect on their purchasing risk perception during the COVID-19 pandemic.

2.2. Panic Buying Behaviour During the COVID-19 Pandemic

Process: Under normal circumstances, rational consumers have a results-oriented approach. With this approach, when they make a purchase, they first evaluate the necessity and possible consequences of the purchase. They then integrate the information they have obtained and use it in their purchasing decisions. On the other hand, there may be a tendency toward irrational consumption in high-risk periods such as crises. In fact, the risk-as-feelings theoretical perspective revealed that there will be a tendency toward irrational consumption in high-risk situations such as a crisis (Slovic et al., 2004). Impulsive buyers are more likely to act on stimuli and respond positively and immediately to purchase impulses. In extreme cases, impulsive behaviour is almost entirely stimulus-driven; an impulse to buy is directly translated into an immediate, productive and physical response (Rook & Fisher, 1995).

Due to the concern of the pandemic, there has been an increase in the demand for frozen, canned, long expiration dates, previously used (Butu et al., 2020) and healthy food products (Hesham, 2021). During the pandemic, governments have developed regulations that limit people from getting together (Anic et al., 2011). In addition to the concerns experienced during the pandemic period, the different applications implemented during this period brought some difficulties. Long waiting times, long queues outside the stores, decreased demand for unpackaged food products or unpackaged ready-to-eat foods (Beitzen-Heineke et al., 2017), increased personal security measures such as disinfectant use and contactless payment (Szymkowiak et al., 2020), and decreased visits to restaurants and markets (Hesham, 2021) are also some of the challenges experienced during this period. In this context, when the COVID-19 pandemic is considered an extreme situation, the stimulus focus of impulsive behaviour increases, and the impulse to buy turns into a direct response. In this vein, the research hypotheses determined conceptually based on the literature are as follows:

H₄: Buying impulsivity has a significant effect on panic buying behaviour during the COVID-19 pandemic. In essence, sharp increases in demand for a product lead to widespread shortages. This causes additional panic buying and a further increase in demand. Stocking up from panic buying behaviour can become contagious, and this behaviour pattern can have an exponential effect (Thomas, 2014). As a result, the stress and uncertainty experienced by consumers at the time of their decision can cause panic buying (Loxton et al., 2020). The development of a general, stable temporal focus is influenced by a person's childhood experiences in the early years, national culture, socioeconomic status, and parental beliefs. In addition, temporal focus is influenced by sociocultural factors and extraordinary circumstances (Lins & Aquino, 2020). The change in temporal orientation during the COVID-19 pandemic, which is an extraordinary situation, also affects individuals' lifestyles and, accordingly, their purchasing behaviour. In this vein, the research hypotheses determined conceptually based on the literature are as follows:

H₅: Temporal focus has a significant effect on panic buying behaviour during the COVID-19 pandemic.

It is important to address the risk factors underlying panic buying behaviour with a holistic approach. In fact, many different risk factors have been emphasized in studies conducted in this field. For example, according to Yuen et al. (2020), there are four main factors that cause panic buying during the COVID-19 pandemic:

1) perception;

- 2) fear of the unknown;
- 3) coping behaviour;

4) social psychology.

When consumers perceive any risk, they turn to self-protective activities, including panic buying, to minimize the perceived risks. For example, when individuals perceive a high risk of contracting a disease, they may think that a product will become unavailable or believe that they may regret not performing a certain behaviour or purchase (Yoon et al., 2018). Islam et al. (2021), on the other hand, aimed to examine the mechanism underlying panic buying behaviours during the COVID-19 pandemic in line with the SOR and competitive arousal model of the Mehrabian-Russel Stimuli-Organism-Response Model. A study conducted in the USA, China, India and Pakistan has shown that external stimuli such as limited quantity scarcity (LQS) and limited time scarcity (LTS) have a significant and positive effect on perceived arousal during the COVID-19 pandemic. In other words, the greater the fear of scarcity of goods and concerns about limited time to shop, the greater the psychological stress people experience. In fact, data obtained from four countries show that the global panic buying phenomenon is caused mainly by fear of scarcity and psychological stress. In the study conducted by Chua et al. (2021) to determine the determinants of panic buying behaviour, it was concluded that perceived scarcity had a positive effect on panic buying and that perceived scarcity also mediated the relationship between health belief model factors (i.e., perceived susceptibility, perceived severity, outcome expectation, cues to action, and self-efficacy) and panic buying. In the context of the factors leading to panic buying behaviour, a different approach belongs to Naeem. Naeem (2021) stated that the uncertainty and insecurity caused by the COVID-19 pandemic have led consumers to panic buying behaviour and evaluated the factors that cause this behaviour under two headings. He claimed that the first of these was the lack of adequate coverage of authoritative institutions and expert opinions on social media, and the second was the inability to present a persuasive global mind. Billore & Anisimova (2021) systematically reviewed studies on panic buying over the past two decades. The authors stated that there are differences in consumer behaviour during the COVID-19 period. The authors also emphasized the effect of herd psychology, social distancing and government interventions observed during the pandemic on panic buying behaviours. Chen et al. (2022) conducted another study on the positive effect of government interventions on group impulse buying demands. Similarly, Prentice et al. (2020) stated that government interventions, which are considered one of the antecedents of panic buying, are significantly related to panic buying behaviour. The authors stated that this relationship has psychological consequences for panic buyers, such as feelings of security and guilt, which have a significant impact on panic buyers. In this vein, the research hypotheses determined conceptually based on the literature are as follows:

H₆: Purchasing risk perception has a significant effect on panic buying behaviour during the COVID-19 pandemic.

In line with the data obtained from the literature, a theoretical model was created to determine the role of consumer life orientation on panic buying behaviour through the variables of buying impulsivity, temporal focus and purchase risk perception, which are subdimensions of purchase orientation, during the COVID-19 pandemic. In this context, the conceptual model of the research is shown in Figure 1.

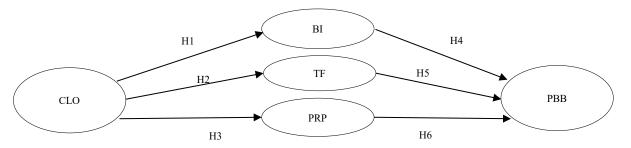


Figure 1. Conceptual Model: The Effect of Consumer Life Orientation on Panic Buying Behavior in the COVID-19 Pandemic Process

Sources: developed by the authors.

3. Methodology and research methods. The main aim of this study, which is conceptually justified based on the literature, is to determine the extent to which consumer life orientation predicts panic buying behaviour during the COVID-19 pandemic. In this research, the "correlational research method", a quantitative research method, was used to examine the relationship between consumer life orientation and panic buying behaviour. In this context, the aim of this research is to examine whether consumer life orientation has a significant effect on panic buying behaviour through buying impulsivity, temporal focus and purchasing risk perception

variables, which are subdimensions of purchasing orientation. In this vein, the universe of the research consists of consumers who shop in the retail sector. However, since it is not possible to reach all consumers shopping in the retail sector within the scope of the research, the research was carried out with a purposeful sampling method, which is a nonprobabilistic sampling method. The research was conducted online and with 425 participants. As a result of the examination of the completed questionnaires, the questionnaires of 3 participants were disabled due to incomplete or incorrect data, and the analyses were carried out on the research data of n=422 participants. Fifty-four percent of the participants were male, and 46% were female. The age range of the participants was as follows: 28.4% were between 18 and 24 years, 43.4% were between 25 and 40 years, and 14.7% were between 41 and 56 years. The education levels of the participants were as follows: 48.3% had an undergraduate degree, 17.5% had an associate degree, 13.7% had a primary school education, 13.3% had a high school education and 7.1%.

The questionnaire technique, one of the most common data collection methods, was used to obtain primary data in the study. The questionnaire used in the research consisted of 2 parts. In the first part, the following scales were used, and a questionnaire was created after the adaptations: the "Panic Buying Scale" and "Purchasing Risk Perception Scale" from Lins & Aquino (2020), the "Buying Impulsivity Scale" from Rook & Fisher (1995), the "Temporal Focus Scale" from Shipp et al. (2009) and the "Life Orientation Test" from Scheier et al. (1994). The second part of the questionnaire used in the research was prepared in Turkish. While preparing the questionnaire, a detailed literature study was conducted, and the scales mentioned above were used.

Research results were limited to April 2021-May 2021, when research data were collected. In the analysis of the data, frequency analysis, descriptive statistics, confirmatory factor analysis and structural equation modelling (SEM) analysis were performed by using the basic and advanced statistical package programs in coordination since they complement each other. The reason for using structural equation modelling in this study is to model interactions, to include measurement errors in the model, and to determine the relationships between independent (consumer life orientation) and dependent variables (panic buying behavior) simultaneously in line with the conceptual model of the research. Another reason is that the analyses that need to be performed separately for each hypothesis with the regression model are performed at the same time as SEM, and the margin of error is minimized (Arbuckle, 2013; Ayyıldız & Cengiz, 2006). For this reason, SEM was chosen because it is the most appropriate statistical technique for the purpose of the study.

4. Results. The data collected in the research were coded and transferred to the statistical program. After the completion of data entry, the statistical tests to be used in the data analysis were determined. While determining the statistical tests to be performed on a data group, whether the data are normally distributed over the kurtosis-skewness values should be analysed. As a result of the kurtosis-skewness normality test applied to the research data, it was determined that the data had values between -1.5 and +1.5 and showed a normal distribution (Tabachnick & Fidel, 2007). The research data were analysed within the determined systematic framework, and the results obtained are given below. First, the frequency analysis results of the sociodemographic questions that determine the participant profile in the first part of the questionnaire are given. Table 1 includes demographic data on the sex, age, educational status and occupational status of the participants.

Demographic Variables	Value	Frequency	Percent	Demographic Variables	Value	Frequency	Percent	
Gender	Male	194	46.0	Occupation	Public Sector	115	27.3	
	Female	228	54.0		Private Sector	112	26.5	
	Total	422	100.0		Housewife (Not	44	10.4	
					Working)			
					Student	68	16.1	
Age	18-24	120	28.4		Other	83	19.7	
	25-40	183	43.4		Total	422	100.0	
	41-56	62	14.7					
	57+	57	13.5	Monthly Income	3000 TL and	213	50.5	
	Total	422	100.0	-	Below			
					3001-4500 TL	91	21.6	

 Table 1. Sociodemographic Characteristics of the Participants (n=422)

Demographic Variables	Value	ie Fredhency Percent S		Demographic Variables	Value	Frequency	Percent	
Education	Elementary	58	13.7					
	Education							
	High school	56	13.3		4501-6000 TL	85	20.1	
	Associate	74	17.5					
	Degree							
	University	204	48.3		6001 TL and	33	7.8	
	Postgraduate	30	7.1		Above			
	Total	422	100.0		Total	422	100.0	

Sources: developed by the authors.

Table 1 shows that 54% of the participants were male and 46% were female. When the age ranges of the participants were examined, 28.4% of the participants were in the 18-24 age range, 43.4% were in the 25-40 age range, and 14.7% were in the 41-56 age range. The percentage of participants aged 57 and over was 13.5%. On the other hand, when the educational status of the participants was examined, the majority (48.3%) were university graduates. The education levels of the other participants were as follows: 17.5% had an associate education, 13.7% had an elementary education, 13.3% had a high school education and 7.1% had a postgraduate education. A total of 27.3% of the participants were public employees, 26.5% were private sector employees, 16.1% were students, and 10.4% were housewives. While 50.5% of the participants had an income of 3000 TL or less, 7.8% had an income of 6001 TL or more. A total of 21.6% of the participants in the other groups had an income between 3001-4500 TL, and 20.1% had an income between 4501-6000 TL.

4.1. Confirmatory Factor Analysis Results

The extent to which the theoretically constructed model explains the obtained data is determined by the goodness of fit values. Goodness-of-fit values are tested with confirmatory factor analysis (CFA). The model structure is accepted according to the goodness of fit values of the *consumer life orientation* scale obtained as a result of the confirmatory factor analysis. For a model to have a perfect fit structure, the RMSEA should be 0.08 or less (Joreskog & Sorbom, 1993; Arbuckle, 2013). The RMSEA of the research model is 0.080. $\chi^2/df = 4.15$ and p <0.000.

	χ^2	р	χ^2/df	CFI	NFI	IFI	GFI	AGFI	RMSEA	SRMR
Acceptable Goodness	Lowest	>0.05 Insignificant	≤5	≥0.90	≥0.90	≥0.90	≥0.85	≥0.80	≤0.080	≤0.090
of Fit Index Model Goodness of Fit Index	100.406	0.000	4.15	0.90	0.89	0.90	0.93	0.83	0.080	0.013

Table 2. The Goodness of Fit Values of the Consumer Life Orientation Variable

Sources: developed by the authors.

As a result of the confirmatory factor analysis performed for the *consumer life orientation* measurement material, the observed variables whose standardized regression coefficients were less than 0.50 were removed from the factor, and CFA was performed again. Accordingly, 2 questions with a coefficient below the expected value in the consumer life orientation factor were dropped (in order, starting from the lowest), and CFA was reimplemented. When the goodness-of-fit values are examined after the questions are removed, acceptable values are provided by the model. The satisfactory result of the model fit shows that the estimated structural coefficients can be evaluated by testing the hypotheses (Ayyıldız & Cengiz, 2007).

4.1.1. Buying Impulsivity, Temporal Focus, Purchasing Risk Perception Measurement Materials Measurement Model (Confirmatory Factor Analysis)

When the goodness-of-fit values are examined in the context of the confirmatory factor analysis results for the buying impulsivity, temporal focus, and purchasing risk perception variables, which are the subdimensions of the purchasing orientation measurement material, it is seen that the fit values of the factors are above the acceptable level. As a result of the confirmatory factor analysis of the consumer purchasing orientation latent variable, which consists of three subdimensions, the observed variables with standardized regression coefficients below 0.50 were removed from the factor, and CFA was reperformed.

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	χ^2	р	χ²/df	CFI	NFI	IFI	GFI	AGFI	RMSEA	SRMR
Acceptable Goodness	Lowest	>0.05 Insignificant	≤5	≥0.90	≥0.90	≥0.90	≥0.85	≥0.80	≤0.080	≤0.090
of Fit Index Model Goodness of Fit Index	221.645	0.000	3.57	0.94	0.93	0.96	0.92	0.91	0.078	0.021

Table 3. The Goodness of Fit Values for Buying Impulsivity, Temporal Focus and Purchasing Risk Perception

 Measurement Materials

Sources: developed by the authors.

Accordingly, 4 questions with a coefficient below the expected value in the temporal focus factor, which is a subdimension of the consumer purchasing orientation factor, were dropped (in order, starting from the lowest), and CFA was reimplemented. When the goodness-of-fit values are examined after the questions are removed, acceptable values are provided by the model. When the goodness-of-fit values of the consumer purchasing orientation factor are examined, $\chi^2/df=3.57$ and p<0.000, and the RMSEA value is 0.078. When other goodness-of-fit indices (CFI=0.94; NFI=0.93; IFI=0.96; GFI=0.92; AGFI=0.91 and SRMR=0.021) were also examined, it was determined that the consumer purchase orientation measurement material had acceptable goodness-of-fit values, and moreover, the factor had excellent goodness-of-fit values.

4.1.2. Confirmatory Factor Analysis (CFA) of *Panic Buying Behavior Scale Measurement Model:* When the values of goodness of fit as a result of the confirmatory factor analysis of the panic buying behavior variable are examined, the model fit in the factor structure, where the fit values of the scale are above the acceptable level, is quite good.

Table 4. Panic Buying Variable Goodness of Fit Values

	χ^2	р	χ²/df	CFI	NFI	IFI	GFI	AGFI	RMSEA	SRMR
Acceptable	Lowest	>0.05	≤5	≥0.90	≥0.90	≥0.90	≥0.85	≥ 0.80	≤ 0.080	≤0.090
Goodness of Fit Index		Insignificant								
Model Goodness	60.636	0.000	4.33	0.98	0.97	0.98	0.96	0.92	0.79	0.031
of Fit Index	11 .1									

Sources: developed by the authors.

As a result of the confirmatory factor analysis performed for the panic buying factor, no questions were removed from the factor because the standardized regression coefficients of all observed variables were above 0.50. When the goodness of fit values of the panic buying factor are examined, $\chi^2/df=4.33$ and p<0.000, and the RMSEA value is 0.079. When other goodness-of-fit indices were also examined, it was determined that the panic buying factor had acceptable goodness-of-fit values, and moreover, the factor had excellent goodness-of-fit values. In line with the conceptual model of the research, it was determined that the CFA results, which were performed separately for consumer life orientation, subdimensions of purchasing orientation (buying impulsivity, temporal focus, and purchase risk perception) and panic buying behaviour measurement materials, had excellent goodness of fit values. This is important in terms of establishing and testing the structural model. The structural model results are as shown in Figure 2.

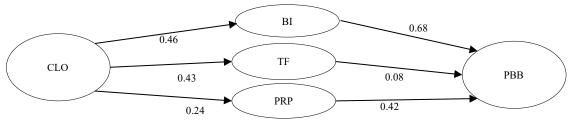


Figure 2. Conceptual Model Sources: developed by the authors.

Table 5. Structural Widde	I ICCSU	1.5			
Dependent Variables		Independent Variables	Total Impact (SRW)	S.E.	C.R. P
Buying Impulsivity	<	Consumer Life Orientation	0.435	0.061	7.540***
Temporal Focus	<	Consumer Life Orientation	0.431	0.066	7.427***
Purchase Risk Perception	<	Consumer Life Orientation	0.240	0.034	3.899***
Panic Buying Behaviour	<	Buying Impulsivity	0.681	0.055	11.819***
Panic Buying Behaviour	<	Temporal Focus	0.083	0.037	1.949*
Panic Buying Behaviour	<	Purchase Risk Perception	0.415	0.106	7.060***

Table 5. Structural Model Results

Note: ***p<0.001; *p>0.05

Sources: developed by the authors.

In line with the research findings obtained from the structural model, it has been determined that consumer life orientation has a statistically significant (p<0.001) and close to moderate effect on buying impulsivity, temporal focus and purchasing risk perception, which are subdimensions of purchasing orientation. On the other hand, buying impulsivity and purchase risk perception had a moderately significant (p<0.001) effect on panic buying behaviour. Therefore, it was determined that the consumer life orientation variable had a statistically significant (p<0.001) and moderately strong effect on panic buying behaviour through buying impulsivity and purchasing risk perception variables. The temporal focus variable did not have a statistically significant effect on panic buying behaviour. In line with the empirical results, it has been determined that consumer life orientation has a significant effect on panic buying behaviour through buying impulsivity and purchasing risk perception variables. On the other hand, it was determined that consumer life orientation did not have a statistically significant (p>0.005) effect on panic buying behaviour through the temporal focus variable.

5. Discussion. Due to the increasing awareness of the importance of the pandemic, consumers are focusing more on the negative effects of the pandemic on human health, and accordingly, they tend towards panic buying behaviour. Some of the changes caused by the pandemic, such as the increase in distance education and home working, the expansion of mobile retailing, increases in demand for hobby products and personal care products, decreases in food orders, decreases in the home services category, etc., are among these developments. Businesses operating in the retail sector in Turkey have developed new strategies according to this change in consumers' life orientations. The research shows that consumers in the retail sector have changed their life orientations during the pandemic process they are facing, and accordingly, they tend to panic buying. Therefore, it is possible for businesses that understand consumers' insights and develop new strategies for this change to gain competitive advantage. This study contributes significantly to the existing body of knowledge on consumer life orientation and panic buying by presenting and empirically validating a framework based on recognized theories. Important causes and effects of change in consumer life orientation are the main points of this paradigm. The results of the study are considered to be of great importance in terms of contributions to marketing professionals, brand managers and researchers in terms of what to do, especially in extraordinary periods such as epidemics. This research has both theoretical and practical implications.

When the literature on consumer life orientation and panic buying behaviour during the COVID-19 pandemic was examined, similar results were obtained. In a study carried out by Loxton et al. (2020), it was determined that the change in consumer behaviour during the COVID-19 pandemic is similar to the behaviour of consumers in the face of shocking events in different periods of history. Similar to all crisis periods, during the COVID-19 pandemic, it has been concluded that panic buying is experienced in accordance with Maslow's hierarchy of needs and acts with herd psychology and that the media has a significant effect on consumer buying behaviour. There is a similarity between the findings of this research and the findings of this study. According to the panic buying scale developed by Lins & Aquino (2020), men make more panic purchases than women. According to a similar study conducted by Hesham et al. (2021), women are more worried about the COVID-19 pandemic than men are, and elderly people are more concerned about the COVID-19 pandemic and are more sensitive to measures to prevent transmission. On the other hand, as a result of a study carried out on the same scale, it was concluded that although there was a positive relationship between impulsive buying, past/future temporal focus and risk perception, there was a negative relationship between optimism and age (Lins & Aquino, 2020). The results of the study by Chronopoulos et al. (2020) showed that consumer spending in Great Britain (GB; England, Scotland and Wales) was relatively stable during the early stages of the COVID-19 crisis (18 January-21 February 2020). However, with the enactment of the curfews in the following period (February 22-March 22, 2020), discretionary expenditures decreased significantly in a short

time, and this situation continued during the prohibition period (23 March-10 May 2020). Laato et al. (2020) showed that as long as people continue to isolate themselves, they will continue to make unusual purchases. A study conducted by Islam et al. (2021) for the USA, China, India and Pakistan showed that "Limited Quantity Scarcity" and "Limited Time Scarcity' significantly increased the perceived arousal of consumers, which in turn led to more impulsive and obsessive purchasing. Similarly, Ross (2023) concluded that as perceived product scarcity increases, the likelihood of panic buying also increases. The findings of these studies are similar to our findings. Therefore, there is a positive relationship between changes in consumers' life orientations, such as time and quantity scarcity perceptions, and panic buying behaviour. In such situations, the perception of uncertainty and scarce resources may lead consumers to buy more. Such situations may also cause the supply of goods and services to be insufficient against aggregate demand, which may lead to demand inflation. The panic caused by COVID-19 has created a fear of scarcity among consumers. This situation increases the perceived level of arousal, which leads to impulsive and obsessive purchasing behaviour. Studies conducted during the COVID-19 pandemic have shown that having more COVID-19 information has a direct effect on panic buying. In other words, uncertainty, perceived severity, and perceived scarcity are positively related to anxiety, not to the panic buying behaviour of consumers. In addition, anxiety mediates the relationship between these variables and consumers' panic buying behaviour (Sherman et al., 2021; Omar, 2021). Garfin et al. (2020) argued that panic buying during the COVID-19 pandemic is caused by stress, excessive worry and anxiety. A study conducted by Genc & Arslan (2021) showed that COVID-19 stress is negatively related to a sense of hope and optimism. Therefore, the pandemic process negatively affects consumers' life orientations, which leads to panic buying behaviour.

As a result, the uncertainty created by chaos periods can cause significant changes in consumer orientation. At the end of the pandemic, when people often think of death due to the relatives they have lost, they will tend to purchase products related to their identities in the long term, if not in the short term. This is mainly because purchasing something gives people a sense of control. It should not be forgotten that consumers are people first (Danziger, 2020). In this respect, consumers who are disturbed by uncertainty during the pandemic period consume traditional foods, are affected by nostalgic posts in advertisements, are happy to take part in brand communities and are interested in companies with corporate social responsibility (CSR) projects that prioritize employee well-being (Solomon, 2020). In a study conducted by Messner & Payson (2022) in which the effect of the COVID-19 pandemic on panic buying behaviour was investigated, the findings showed that individualism and uncertainty avoidance behaviours both have a positive effect on the degree of panic buying. Therefore, the impact of the COVID-19 pandemic, which can be considered one of the greatest health and economic crises of our century, on consumers has also been great. It would not be wrong to expect that the areas that consumers will be interested in in the next period will be telemedicine, disinfectants, contactless payment, bulk purchases, drones and driverless vehicles, contact tracking applications, prepackaged snacks, etc. (Solomon, 2020). It can also be said that the prolonged nature of the COVID-19 pandemic may increase people's participation in preventive health approaches, and people may turn to product groups within this scope (Shahnawaz et al., 2022).

Due to the great impact of the pandemic on consumers' life orientations, it is possible to talk about consumer behavior that will change permanently, even if COVID-19 disappears. For example, consumers will likely avoid entering crowded environments, spend more time at home, be more sensitive to the consumption of cleaning products, and pay attention to social distancing. For this reason, businesses that can offer an environment suitable for the issues that customers are sensitive to, especially hygiene rules, will come to the fore in the competition. In short, such postdisaster changes have the potential to be permanent (Hall et al., 2020). During the pandemic, consumers realized the importance of hygiene products, environmentally friendly products, regional (local) products and satisfaction within the scope of their shopping (Verma and Naveen, 2021). Therefore, retailers and marketers can use this health crisis to help their customers lead healthier lives and build healthier businesses in the short and long term.

6. Conclusions. This study supports the literature on consumer life orientation and panic buying behaviour. First, consumer life orientation is analysed in terms of optimism and pessimism, information level and social media usage. This theoretical foundation shows that consumer life orientation is influenced by optimism-pessimism, information level and social media practices (Arslan et al., 2021). This merger is a robust framework for understanding the key motivations for consumers' life orientations. The theoretical framework reveals that changes in consumer life orientation occur due to unusual situations such as pandemics (Schou-Bredal et al., 2021). In the second step, the literature showing that consumer life orientation has a significant impact on purchase behaviour is included. Billore & Anisimova (2021), in their systematic review

of studies on panic buying in the last two decades, mentioned that there were differences in consumer behaviour during the COVID-19 period and emphasized the effect of social distancing and government interventions, especially herd psychology, observed during the pandemic process on panic buying behaviour. In the third step, the literature on the factors mediating the relationship between consumer life orientation and panic buying behaviour is presented. Among these factors, temporal focus, purchase impulsivity and purchase risk perception variables are mentioned. In the fourth and final step, the conceptual infrastructure that reveals the effect of consumer life orientation on panic buying behaviour is discussed. In this direction, a conceptual model was created. Such studies are useful in determining the strategies to be implemented by businesses during epidemic periods because understanding consumer life orientation is important for understanding panic buying behaviour. In this vein, optimism and pessimism, information level and social media, temporal focus, purchase impulsivity and purchase risk perception accelerate changes in consumer life orientation, and this situation triggers panic buying behaviour.

In line with the empirical findings obtained in the study, it has been determined that consumer life orientation has a significant effect on buying impulsivity, temporal focus and purchase risk perception, which are subdimensions of purchasing orientation. At the same time, it was determined that buying impulsivity and purchase risk perception had significant effects on panic buying behaviour. However, temporal focus did not have a significant effect on the panic buying variable. These results show that consumer life orientation affects panic buying behaviour through purchase impulsivity and purchase risk perception, and there is a positive correlation between consumers' life orientations and purchasing tendencies. The results of both the literature and research findings show that there is a positive relationship between consumers' optimistic or pessimistic orientation towards changing social, economic and sociocultural situations and their purchasing tendencies. Because COVID-19 stress has a significant impact on optimism-pessimism, psychological flexibility and psychological problems, it can be said that the mood changes of consumers during the pandemic trigger panic buying behaviour.

In the coming period, it will not be surprising to expect that both customers who started online shopping as a necessity but who have made such shopping a part of their lives and customers who have previously shopped online but increased their purchases during the pandemic period will continue to shop online. For this reason, it is recommended that businesses invest in online shopping systems and improve their service networks. In this context, all digital platforms, especially social media, should be utilized. The development of social responsibility projects carried out during the pandemic with positive results is also among the recommendations for the future. In addition, additional budgets can be allocated for the development of canned product groups and dry food group products, whose consumption increased during the pandemic. Finally, designing durable packaging for retail products will be a reasonable approach because it will extend the usage period of the products.

An important caveat of this research is that it is based on consumer perceptions. Their views were used to assess consumer life orientation and panic buying behaviour, especially during the COVID-19 pandemic. Instead, future research should focus on what managers or business decision makers think. Future research could benefit from the inclusion of psychosocial determinants as mediating variables between consumer life orientation and panic buying behaviour. Therefore, it is important to investigate the differences between various sociodemographic characteristics related to consumer life orientation and buying behaviors. This study mainly focused on cross-sectional data, but longitudinal research could extend its applicability. Therefore, a new study could use this method to compare data on different consumer groups of businesses (manufacturing and service sector, local and multinational sector). Due to the focus of the study on consumers in Turkey, additional research using this model should be conducted in other countries to determine whether there is a significant difference between the findings.

Although the severity of the COVID-19 pandemic has decreased to a great extent, factors such as the fact that it still continues with different variants and the potential for similar outbreaks to occur in future periods make consumer behaviour during epidemic periods important. On the other hand, consumer behaviour in postepidemic periods should also be addressed separately. Based on this idea, suggestions were made in the study for both the epidemic period and the postepidemic period. It is thought that the suggestions shared in this context will contribute to business owners, marketing professionals and academicians working in this field. As a result, the COVID-19 pandemic has caused a change in the life orientations of consumers in psychosocial terms, and emotions such as stress, anxiety and uncertainty trigger panic buying behaviour. In similar studies to be conducted in this direction, the relationship between consumer decision-making styles

and panic buying behaviour can be examined. In addition, research can be conducted on consumer groups other than the retail sector.

When the limitations of the research are evaluated, the literature limitations include consumer life orientation and panic buying behaviour. The theoretical framework, research model and hypotheses were determined in line with this limitation. Due to methodological limitations, a quantitative research method was used in this study. There is also a temporal limitation in the research. Another limitation is that the study was conducted during the COVID-19 pandemic.

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Взаємозв'язок між життєвими цінностями споживачів та їх панічними покупками в умовах пандемії COVID-19

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Ключові слова: поведінка споживачів, епідемія, життєвий стиль, маркетинг, придбання.