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Study of the influence of consumer trust factors and the marketing mix on consumer value and consumer loyalty

Abstract
Object: The aim of the study is to determine the importance of consumer trust in value creation and to study how consumer trust influences their purchase decision and consumer loyalty.

Methods: As it is shown in the scientific literature, several methods are used when writing a research paper, which are classified as field and desk, quantitative and qualitative. Typically, one or both of these may be used in a study. Depending on the purpose of our work in our study, at the first stage, we analyzed second-order information based on desk research. It was used to review scientific articles relevant to the topic of a previously published study. At the second stage of the study, we conducted an opinion poll using the method of quantitative research. The survey was conducted on the basis of a conceptual model and measuring scales of previous studies. To test the questionnaire developed for the survey, a pilot survey was organized for 40 respondents.

To get answers to questions about who was conducted in research, how many of them should be, and how to select them, we conducted a selection using sources of scientific literature.

Findings: The value of the study is specific, the significance of the work lies in the fact that our study considers the chain of consumer value creation in the production and sale of food products and involves the measurement of consumer value in this chain based on factors that form consumer beliefs. In this regard, it complements the studies carried out so far on the problem of creating customer value.

Conclusions: The results of the study can be considered when forming a chain of consumer value creation in the marketing activities of sausage manufacturers.

Keywords: marketing mix, consumer trust, consumer value, consumer loyalty.

Introduction
Nowadays, consumers have high demands for goods and services, high awareness of goods and services related to access to information, as well as global competition and instability in the economies of countries day by day increase the importance of customer value. The concepts of customer value and customer value chain have not been scientifically defined in a sustainable manner. There is a prescription in academia that significant marketing activities in global markets should be aimed at creating customer value (Leroi-Werelds, 2019). In marketing, attention to the creation of value perceived by consumers appeared in the 1980s. Since then, marketing researchers have been searching for its definition and the answer to the question by which indicators it should be measured (Holbrook, 1982; Dodds, 1985; Zeithaml, 1988). Scientific research aimed at uncovering the concept of customer value creation in the period from the 1990s to the 2000s has been widely published in the management and marketing literature. The views on the concept of customer value and its dimension have led to many conclusions and complex issues (Zauner, 2015). According to some researchers, scholars' different views and definitions of customer value have made it difficult to understand the type, measure, and how customer value is realized (Sanchez-Fernandez, 2009).

Literature Review
Most academic studies examine the problem of customer value formation in relation to the service industry, while individual researchers prioritize customer value creation, realization and management
(Sweeney, 2001; Heinonen, 2006; Chiu, 2014; Kelleher, 2019). Some studies claim that efforts to study customer value started about 10 years ago, others consider the business context, still others focus on the consumer context (Boksberger, 2011; Gallarza, 2011).

Much of the research on customer value and customer value formation, as we have already mentioned, considers the Service Industry or areas related to non-food products. Since our research area covers the food industry, priority has been given to examining the food policy debate in recent years. Most of the studies in this area address the loss of consumer trust in consumer value in the food production and distribution chain (Kjærnes, 2006; Sapp, 2009; Hobbs, 2015; Kaiser, 2017). It is worth noting that the food and beverage sector was one of the sectors that showed the greatest decline in consumer trust between 2017 and 2018.

The analysis of the food production and realization chain and a better understanding of the multidimensional aspects of the concept shows that further analysis should focus on the development of a methodological framework and objective indicators for measuring and evaluating the consumption value of food products.

For food manufacturing companies, customer value research and measurement is not something to be done once, it should be seen as an ongoing activity using quantitative and qualitative research methods aimed at establishing a long-term relationship with the consumer (Sanchez-Fernandez, 2007). In this regard, the results of our study can be considered in the formation of the chain of creation of consumer value of marketing activities of companies-producers of sausage products. In some literature the concept of “value” is considered as profitability in economic terms, efficiency of goods or services for the consumer. Nowadays, any business is based on attracting the attention of consumers and creating appropriate value. From this we can see that “value” and “customer value” in marketing can be considered as synonyms. In his definition of marketing, F. Kotler defines it as “defining, developing, promoting, presenting and supervising consumer value” (Kotler, 2004, 22). Many researchers have emphasized that the concept of value is crucial for strategic business management. For example, Wang and others argue that creating customer value in building and maintaining a company’s competitive advantage has become a strategic imperative (Wang, 2004, 169–182). Other researchers emphasize that customer value is a key factor in strategic management (Mizik, 2003, 63–76).

Slater, one of the proponents of value theory, says that “the reason why a firm operates and succeeds is to create customer value”.

In the formation of consumer value, the main factor, in our opinion, is the consumer's trust in the manufacturer, product, its properties, price, information about it, the seller of the product or service. As evidence, in recent decades many scientific studies raise the issues of determining the level of consumer trust, developing its concept, determining indicators of its measurement (Shaughnessy, 1997; Slater, 1997). Some researchers have studied consumer trust as a determinant of consumer confidence in purchasing a product (Bartlett, 2001). They sought to show that the influence of consumer trust on confidence depends on the actors in the consumer value chain.

The next author in his study proved that consumers' trust in the producer and seller influences their trust in food products in general (Ringle, 2005).

Existing research currently focuses on particular aspects of trust, such as farmer-suppliers, food producers, regulators-government, retailers, etc. (Grunert, 2002, 275–285).

Research on whether customer value influences intention formation considers that it is complex, depends on emotional and cognitive criteria, etc.

**Methods**

Depending on the purpose of the study, we conducted an opinion survey with a survey instrument using quantitative research method.

**Results**

When studying customer value, the question of determining what factors shape it is particularly important. Based on the opinion of some researchers, there is currently no clear, specific list in marketing of through which factors customer value is formed. As a result of the conducted literature review, it was found that in the formation of the consumer value chain, it is relevant to find answers to the question of whether the marketing mix and consumer trust have an impact on consumer value and consumer purchase incentive, and whether they in turn form consumer loyalty.

Based on the theories of Porter M. and other scientists on the formation of customer value, the following conceptual models and research assumptions have been developed.
Study of the influence of consumer ...  

![Conceptual model and hypothesis of the study](image)

Figure 1. Conceptual model and hypothesis of the study.

Note - compiled by the authors as a result of the study

- Hypothesis 1: Marketing mix creates customer value.
- Hypothesis 2: Consumer trust in chain members increases customer value.
- Hypothesis 3: Customer value builds customer loyalty

Figure 1 presents the conceptual model of the study related to finding an answer to the question whether marketing mix and consumer trust have an impact on consumer value in the formation of the consumer value chain, and whether it, in turn, forms consumer loyalty. According to the research conceptualization, two independent variables such as elements of marketing mix of sausage manufacturing enterprises and consumer trust in value chain actors influence the increase of consumer loyalty to sausage consumption. But as shown in the figure, these two independent variables indirectly affect sausage products consumer loyalty through an intervening variable such as customer value.

The purpose of the research is to study and identify the factors affecting consumer loyalty in the formation of customer value chain.

The object of the study is the end consumers of the Republic of Kazakhstan sausage products market, the subject of the study is consumer behavior in assessing customer value.

The opinion questionnaire was developed based on the conceptual model shown in Figure 1 and is based on the use of measurement scales in the earlier studies mentioned above. As there are no measuring scales covering some points, the survey was conducted through interviews with experts in the field, adapting to ask the opinion of sausage consumers.

To test the questionnaire designed for opinion polling, we organized a pilot survey of 40 respondents among the visitors of the Magnum store located in Zhetysu 2 microdistrict in Almaty city.

We used literature sources (Taylor, 2005; Shaughnessy, 2011;) to get answers to the questions about who we conduct surveys to, how many there should be and how they should be selected. As a result, it turned out that the result of the opinion survey of 346 respondents is representative.

Table 1. List of indicator questions aimed at measuring variables

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price (Pr)</td>
<td>How important is it that the price is affordable to you when buying sausage products?</td>
</tr>
<tr>
<td>Product 1(PR1)</td>
<td>How important is sausage safety to you?</td>
</tr>
<tr>
<td>Product 2(PR2)</td>
<td>How important is it to you that sausage products are not harmful to your health?</td>
</tr>
<tr>
<td>Product 3(PR3)</td>
<td>How important are sensory properties of sausage products (taste, smell) to you?</td>
</tr>
<tr>
<td>Methods of distribution (Pl)</td>
<td>How important is it to you to have sausage products in the mall you visit?</td>
</tr>
<tr>
<td>Incentive methods 1(PM1)</td>
<td>How important to you are the outer casings (natural, artificial) and the weight of the sausage products?</td>
</tr>
<tr>
<td>Incentive methods 2(PM2)</td>
<td>How important to you is the image, popularity of the sausage producer company?</td>
</tr>
<tr>
<td>Incentive methods 3(PM3)</td>
<td>How important to you is data on raw materials used in sausage production?</td>
</tr>
<tr>
<td>Consumption value (CV)</td>
<td></td>
</tr>
<tr>
<td>CV1</td>
<td>The quality of domestic sausage products is better</td>
</tr>
<tr>
<td>CV2</td>
<td>Domestic sausages are not harmful to health</td>
</tr>
<tr>
<td>CV3</td>
<td>Domestic sausage products are environmentally safe</td>
</tr>
</tbody>
</table>
In order to test the conceptual model of the study and prove the assumptions made, the information obtained in the study was processed and analyzed using SmartPLS 3 software application.

The figure below shows the result of the PLS algorithm calculation of the measurement of the relationship between variables.

![Diagram](image)

Figure 2. Calculation result of the PLS algorithm of variable coupling

Table 2. Reliability coefficient of individual indicators

<table>
<thead>
<tr>
<th></th>
<th>Consumer trust</th>
<th>Consumption value</th>
<th>Consumer loyalty</th>
<th>Marketing mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT1</td>
<td>0.830</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT2</td>
<td>0.864</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT3</td>
<td>0.839</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CV1</td>
<td></td>
<td>0.318</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CV2</td>
<td></td>
<td>0.866</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CV3</td>
<td></td>
<td>0.860</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td></td>
<td></td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>PM1</td>
<td></td>
<td></td>
<td></td>
<td>0.565</td>
</tr>
</tbody>
</table>
Again, the result of the calculation can be seen in Figure 3.

![Figure 3](image)

**Figure 3. Example of the result of repeated PLS algorithm calculations minus low reliability indicators**

*compiled by the authors as a result of the study*

As can be seen in Figure 3, the Value of reliability coefficient of indicators was above 0.4. Therefore, we leave the readings of all variables to assess the importance of the sample. The value of reliability coefficients of individual indicators of each variable calculated by SmartPLS program can be seen in Table 3.

**Table 3. Values of reliability coefficients calculated using the SmartPLS program**

<table>
<thead>
<tr>
<th></th>
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<th>Marketing mix</th>
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<tbody>
<tr>
<td>CT1</td>
<td>0.830</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT2</td>
<td>0.864</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT3</td>
<td>0.839</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CV2</td>
<td></td>
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<td></td>
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<td>CV3</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
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<td>1.000</td>
<td></td>
</tr>
<tr>
<td>PM1</td>
<td></td>
<td></td>
<td></td>
<td>0.565</td>
</tr>
<tr>
<td>PM2</td>
<td></td>
<td></td>
<td></td>
<td>0.614</td>
</tr>
<tr>
<td>PM3</td>
<td></td>
<td></td>
<td></td>
<td>0.593</td>
</tr>
<tr>
<td>PI</td>
<td></td>
<td></td>
<td></td>
<td>0.670</td>
</tr>
<tr>
<td>Pr</td>
<td></td>
<td></td>
<td></td>
<td>0.515</td>
</tr>
</tbody>
</table>

*compiled by the authors as a result of the study*
Now we determine the probabilistic dependence of the variables. We recognize it by the results of correlation analysis which shows the density of relationship between dependent and independent entities in the sample. We evaluate the strength of relationship using Chaddock scale the result of correlation relationship between variables is presented in Table 4. From analyzing the correlation relationship matrix, we can see that the density of the relationship between consumer trust and loyalty is low (0.048). In our opinion, consumer trust does not immediately cause his loyalty. Consumer trust forms consumer value (0.556). Because of this, the correlation between these two variables remains low.

Table 4. Correlation matrix between variables

<table>
<thead>
<tr>
<th></th>
<th>Consumer trust</th>
<th>Consumption value</th>
<th>Consumer loyalty</th>
<th>Marketing mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer trust</td>
<td>1.000</td>
<td>0.556</td>
<td>0.048</td>
<td>0.261</td>
</tr>
<tr>
<td>Consumption value</td>
<td>0.556</td>
<td>1.000</td>
<td>0.728</td>
<td>0.297</td>
</tr>
<tr>
<td>Consumer loyalty</td>
<td>0.048</td>
<td>0.728</td>
<td>1.000</td>
<td>-0.023</td>
</tr>
<tr>
<td>Marketing mix</td>
<td>0.261</td>
<td>0.297</td>
<td>-0.023</td>
<td>1.000</td>
</tr>
</tbody>
</table>

The correlation between consumer trust and marketing mix (0.261) and consumer value and marketing mix (0.297) is also low. After all, to build consumer trust, it is not enough just to be aware of producers or sellers of sausage products, their sausage products, their prices, it is necessary to consider other factors to fully gain consumer trust. The density of the relationship between consumer trust and consumer value has an above average value (0.556). This implies that as consumer trust increases, consumer value also increases. As consumer value increases, consumer loyalty also increases (0.728) and the density of the relationship between the two variables remains high.

When conducting correlation analysis, it is important to calculate the coefficient of determination. Because this coefficient reflects a qualitative assessment of the created model. The value of the coefficient of determination shows that the change in the dependent variable contributes to the change in the independent variable. Its value is estimated by the inequality: 0≤R_yx^2≤1.

Table 5 shows the calculation of the value of the coefficients of determination of independent variables.

Table 5. Value of the coefficient of determination of independent variables given in the sample

<table>
<thead>
<tr>
<th></th>
<th>Consumer trust</th>
<th>Consumption value</th>
<th>Consumer loyalty</th>
<th>Marketing mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer trust</td>
<td>0.513</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumption value</td>
<td></td>
<td>0.128</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer loyalty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing mix</td>
<td>0.163</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The coefficient of determination of the consumer value of the sample was (R^2) — 0.334. This value means that any change in the independent variable in the sample changes by 33.4 % of the consumer value.

Completing the testing of the constructed structural model requires testing the reliability and validity of the aggregate variables.

Table 7 shows the reliability and validity values of all aggregate variables.
The value of Cronbach's alpha coefficient should be higher than 0.7. This coefficient helped to determine the internal consistency and reliability of the survey questions. But in many surveys it is also acceptable for the value of Cronbach's alpha coefficient to be 0.6. The value of reliability scale obtained by using Cronbach's alpha coefficient of our study is presented in Table 7. Presenting the values of consumer confidence and marketing mix variables in the range of 0.632–0.802 indicates that these scales have sufficient level of reliability. The consumer value scale (0.527) is below 0.6. The reason was to provide 3 consumer value questions on the opinion survey sheet, such as the question about the quality of domestically produced sausages, the question that domestically produced sausages are not unhealthy, and that the results have many responses that domestically produced sausages have better quality but many negative responses that sausages are not unhealthy. Therefore, the analysis program considered this contradiction unreliable.

The next coefficient is the Composite Reliability coefficient, which shows the internal combination and reliability of all variables. The value of this coefficient should also be higher than 0.7. As shown in column 3 of the table, the value of the composite reliability coefficient of other variables other than marketing mix (0.558) is above 0.6. The value of the aggregate reliability coefficient of marketing mix is 0.558, which is a low level of reliability.

Column 5 of the table presents Average Variance Extracted (AVE) (the average value of deviation of the indicators of the independent variable and their indicators). With the help of this indicator it is possible to assess the reliability of the summarized validity. The value of this indicator ranges from 0–1. AVE should have a value higher than 0.5 for the summarized reliability to be correct. According to the data obtained in our study, it turned out that the values of mean deviation for variables other than marketing mix are above the acceptable limit, so we can say that reliability and validity are confirmed.

The next indicator needed to test the conceptual model is the Fornell-Larcker indicator. From Table 8, we can see the result of Fornell-Larcker criteria.

The table shows that all indicators meet the required criteria. According to the assumptions of the study, we have tested the conceptual model according to all criteria. The next step is to evaluate the significance of the conceptual model according to the conditions of PLS-SEM program.

The result of this evaluation is presented in Table 9.
**Discussions**

According to the results of the criteria for assessing the significance of the conceptual model from Table 9, it can be seen that consumer confidence in the producers of sausage products, products form consumer value, consumer satisfaction with the quality, price of sausage products, availability at the points of sale forms consumer value, which, in turn, affects consumer loyalty to sausage products and sausage companies. It can also be seen that consumer satisfaction with the elements of the marketing mix also forms consumer value.

According to Hypothesis 1, marketing mix shapes customer value (β = 0.148, T-value (3.523) > 1.96), significance level (0.000). From this we can see that Hypothesis 1 is proved, the effect of marketing mix on customer value is confirmed.

According to Hypothesis 2, consumer trust in chain members increases customer value (β = 0.516, T-value (12.021) > 1.96), significance level (0.000). Hypothesis 2 is proven.

Hypothesis 3 shows that customer value shapes customer loyalty (β = 0.135, T-value (2.192) > 1.96), significance level (0.028). Hypothesis 3 has been proved and we have seen that it is possible to increase consumer loyalty by increasing customer value.

**Conclusion**

It is fully proved that the variables of the conceptual model that we have analyzed and considered in our study are factors that need to be considered in the formation of customer value contributing to sausage buying behavior.

**References**


А.К. Бураханова, Г.К. Байжаксынова, Э.Б. Оразгалиева, И.И. Скоробогатых

Тұтынушылар сенімі мен маркетинг факторларының тұтынушылық құндылыққа және тұтынушылар ниеттестігін әкпәрде үздіксіз зерттеу

Андақатта:

Максаты: Тұтынушылар құндылығын қалыптастырудағы тұтынушылар сенімінің маңыздылығын анықтау және тұтынушылардың тізбек қатысушыларына деген сенімінде сатып алу туралы шешім мен онаны адамдарына қалай әсер ететінін зерттеу.

Оқиғә: Зерттеуде даярлалық және кабинеттік, сәңірдіқ және сараптық зерттеуді анықтау кезінде сатып алушылардың өнімдерін өндіру және сату кезінде тұтынушылық құндылықтарына қалай әсер ететінін зерттеу.

Тукымандығы: Кәрілген ықтималдық моделдің айналысы науқасының шақтық сатып алуына деген сараптық зерттеудің әдісін қалай әсер етеді және сатып алу туралы шешім мен онаны адамдарына қалай әсер ететінін зерттеу.

Құлт сөздер: маркетинг сенімді, тұтынушы сенімі, тұтынушылық құндылық, тұтынушы ниеттестігі.
рядка на основе кабинетного исследования. Он использовался для обзора научных статей, соответствующих теме ранее опубликованного исследования. На втором этапе исследования мы провели опрос мнений, используя метод количественного исследования. При анализе полученных данных применялось программное приложение SmartPLS3.

Результаты: Доказано, что переменные рассматриваемой структурной модели являются факторами, которые необходимо учитывать при формировании потребительской ценности, способствующей поведению покупателей колбасных изделий. Их можно рассматривать в формировании цепочки создания потребительской ценности маркетинговой деятельности компаний-производителей колбасных изделий.

Выводы: В исследовании рассматривалась цепочка создания потребительской ценности при производстве и реализации продуктов питания, и потребительская ценность измерялась на основе факторов, формирующих потребительские доверие. В связи с этим дополнили проведенные до сих пор исследования, касающиеся проблемы создания потребительской ценности.

Ключевые слова: маркетинговый комплекс, потребительское доверие, потребительская ценность, потребительская лояльность.