## SCIENTIFIC PAPERS OF SILESIAN UNIVERSITY OF TECHNOLOGY ORGANIZATION AND MANAGEMENT SERIES NO. 217

2025

## THE IMPACT OF PRO-LOYALTY ACTIVITIES ON CUSTOMER BEHAVIOR DURING THE HIGH-INFLATION PERIOD

#### Izabella SOWIER-KASPRZYK

Czestochowa University of Technology; i.sowier-kasprzyk@pcz.pl, ORCID: 0000-0001-8458-2295

**Purpose:** The aim of this article is to present research on the impact of inflation on customer loyalty.

**Design/methodology/approach:** The objectives were achieved by conducting research and obtaining results in the form of conclusions. The main research method was a survey conducted among customers. The thematic scope of the research was the issue of customer loyalty in the face of increasing inflation.

**Findings:** During the work, it was discovered that despite rising inflation, customers continue to buy products from companies to which they are loyal. Additionally, a number of other interesting findings were discovered. The actions of companies and the behavior of customers are independent of each other. According to the research, companies react to inflation, but their marketing activities are not a sufficient stimulus to stop its effects. Customers at best buy the same amount, and most often less, than before inflation.

**Research limitations/implications:** In the future, research should be carried out in the event of even more increasing inflation and on a larger research sample.

**Practical implications:** Showing the needs of loyal customers shows companies how to communicate with them during rising inflation. In addition, the results of the research would show companies what customers expect from them during this time.

**Social implications:** The research will have an impact on improving the mutual relations between companies and their customers. As a result, customers will be satisfied and companies will gain really loyal customers in the long term.

**Originality/value:** What is new in the article is that the research has been updated in a period of rising inflation. The research is addressed to both the clients of companies themselves.

Keywords: loyalty, communication with customers, needs of customers, customer behavior, inflation

Category of the paper: research paper.

## 1. Introduction

The concept of inflation has a long history in economics. In the mid-19th century, inflation meant an increase in the money supply or money in circulation not backed by metal money.

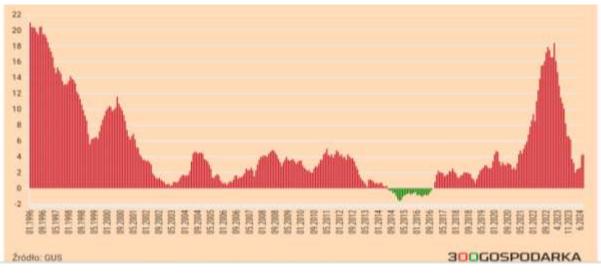
Later, the term inflation meant an increase in the money supply or an increase not offset by an increase in the demand for money, which led to a general increase in prices. After the Keynesian revolution, however, it came to mean an increase in the price level (Bryan, 1997). Austrian economists (Friedman, 1968) viewed inflation as a monetary phenomenon, pointing out that only changes in the money supply could lead to a general increase in prices. Mises strongly pointed out the harmful consequences of the change in terminology that was a consequence of the Keynesian revolution. Mises advocated the following definition of inflation: inflation is an increase in the money supply, or an increase not offset by a simultaneous increase in the demand for money (Mises, 1953). Most later economists followed this definition and focused on developing the theory of the Cantillon effect (Cantillon, 2010), that is, the analysis of how the inflow of new money changes and distorts market data. (Mousten Hansen, Newman, 2022). In general, inflation is (Depa, 2017):

- an increase in the general level of prices, which directly results in the degradation of money. This results in a decrease in its purchasing power. The purchasing power of money is the amount of goods and services that can be purchased for a unit of money, i.e. money spent now is worth more than in the future. This means that the basket of goods that we can buy for a certain amount of money now will be smaller in a year.
- a constant increase in the average level of market prices, which is caused by the increase in production costs;
- a faster increase in global demand in relation to the increase in the supply of goods and services;
- an excessive increase in the supply of money in circulation in the economy.

High inflation means that consumers plan their spending thoughtfully. They limit it and try to save as much as possible. During high inflation, you can see whether consumers are truly loyal customers. However, companies have the opportunity to keep customers. They can introduce loyalty programs that will help customers save money. The way a company treats its customers is also important, it is about an individual approach and meeting customer expectations.

The Central Statistical Office presented information on inflation in Poland (Figure 1). In September 2024, inflation was 4.9%. This means a significant increase compared to the previous month, when the rate was 4.3%. This means that the rate of price growth in September was higher than in August, while the forecasts indicated a reading of 4.8%.

Inflation in Poland has been systematically falling since the beginning of 2023, when it peaked at 18.4% in February. Since then, we have observed a gradual decline in the inflation rate, which in the first quarter of 2024 reached a level below 3%. However, since April 2024, a renewed increase in inflation has been visible. Forecasters estimate that inflation will be around 5% by the end of the year. In addition, forecasts indicate that average inflation in 2025 will be around 4.2-5.2% (Money). The inflation rate in Poland is presented in Figure 1.



#### Figure 1. Inflation rate in Poland.

Source: https://300gospodarka.pl/news/inflacja-w-polsce-na-przestrzeni-lat-wykresy-gus-nbp.

Inflation influences consumer behavior in the market. Behaviour in a broad sense is defined as "any observable reaction to stimuli from the environment or all reactions and attitudes of a living organism to the environment" (Nowa Encyklopedia Powszechna PWN). One of the most important consumer behaviours is consumption behaviour. They constitute one of the two spheres of human economic activity, which are aimed at directly satisfying consumer needs, i.e. using the means of consumption (Żuchowski, Brelik, 2007). Consumer behaviour includes actions related to decision-making, and it begins with the awareness of needs and ends with the consumer's assessment of the accuracy of the decision, including the exchange of information (Żuchowski, Brelik, 2007). During high inflation, consumers may change their shopping behaviour at the initial stage of awareness of needs. They may re-evaluate their needs, and may give up on some purchases that are not essential. During high inflation, prices rise, so in connection with the change in consumption behaviour, consumers may buy fewer products.

The consumer will seek information about the products they have chosen to meet their needs and then evaluate them and ultimately choose the most appropriate ones for them. Assuming that the consumer makes purchasing decisions during high inflation, they can remain loyal to the products they have bought so far but can also swap them for other, e.g. cheaper ones. They can also buy smaller quantities of their favorite products. Can companies influence the consumer's decision-making? Are they able to keep a loyal customer with them? The answer is yes. The fight for the customer is fought in various ways. Companies use promotions, price reductions, improve the quality of their products or services.

#### 2. The impact of inflation on consumer behavior

In the current unstable economic situation, customers may seek stability, which may increase loyalty to trusted brands, but may also cause consumers to look for other shopping options. Companies that want their customers to remain loyal to them should compete on the market with prices and prove that their products are valuable. In addition, if companies have to increase product prices, they should also clearly inform customers about this. When the fight for customers increases during high inflation, one of the solutions available to sellers is a loyalty program. The popularity of loyalty programs has changed in individual years, e.g. in 2023, grocery stores and gas stations dominated loyalty programs, and since 2016, programs from the fashion and drugstore sectors have also appeared (Marketing biznes). When customers assess their financial situation as good, small gifts are not important to them. Saving a few zlotys on shopping may not have meant much to many consumers, and points were earned on the side. When looking for savings, consumers start to appreciate more everything that is available cheaper or for free (Księgowość Infor).

Related to customer loyalty is the concept of trust, and consumer trust is linked to existing reputation. Brands that consistently provide high-quality services are likely to do better during times of high inflation. As inflation increases, price sensitivity increases, and as product prices increase, consumer purchasing power decreases. During this time, consumers are more discerning about their purchases, comparison shopping, comparing prices for the same or similar products across stores and online to ensure they are getting the best possible value. In addition, consumers are more rigorous in managing their spending. Brands often add value through increased innovation, additional benefits, and higher quality. Brands that do this offer fairer prices and are more likely to earn customer trust (Alemany, 2024).

There are strategies that can increase the profitability of companies, including:

- 1. If a company needs to raise prices, it should inform consumers about this; honest communication will increase consumer trust.
- 2. Practicing value-oriented marketing, emphasizing what benefits customers receive by buying the company's products despite the price increase.
- 3. Offering customer-oriented pricing strategies, adjusting prices to customer segments based on needs and price sensitivity.
- 4. Improving customer service and communication, giving priority to customer service, including quickly answering customer questions, especially those related to product prices and inflation.
- 5. Prioritizing long-term relationships, building customer trust, especially during high inflation, engaging in nurturing relationships with customers. Customers should feel appreciated and satisfied (Alemany, 2024).

The company should develop the so-called relational orientation. This means that one of the key areas of activity of such an enterprise is developing lasting relationships with other market participants, and in particular with customers (Sudolska, 2011).

Companies have the capabilities and tools to survive a period of high inflation. By building trust, companies will gain the loyalty of consumers who need security during high inflation (Alemany, 2024). Consumers like to participate in loyalty programs, collect points, get something for free. Therefore, companies should not treat this topic superficially. During high inflation, those companies that focus on providing unique, exclusive offers, will operate both offline and online, combine various promotions and take care of customers in various fields will gain an advantage on the market (Focus on Business).

#### 3. Methods

As the literature review has shown, the level of inflation can affect consumer behavior. Companies are aware of this and more often use loyalty programs and tools in their promotional policy. However, consumer perceptions may differ from company expectations. People's beliefs are most often not logical, but psychological. This means that inflation perceptions are not based on actual price changes on the market, but on changes that draw our attention. This is visible in the reception of information about price increases.

The perception of high inflation varies greatly depending on the category. Most often, we look at the basket of goods and what the prices were a year ago, while consumers use a subjective assessment based on things they know the price of and often buy.

When it comes to changes in behavior in response to inflation, there is a visible diversity. Promotions are used, which changes its perception, because it is observed at different times.

Consumer behavior can take the form of giving up a product, buying in smaller quantities, but also buying in bulk, considered cheaper. So inflation can actually increase the number of purchases in the short term.

It is impossible to generalize that everyone buys less or buys cheaper, because it depends on many factors.

Due to the granularity of the data, companies must look at the specific category in which they operate and, depending on the results, respond to inflation in different ways. This usually involves modifying loyalty programs or tools that stimulate this loyalty. Companies' actions will go in many directions, most often already proven in the past. An example is the action of introducing and promoting lower-tier brands or value brands when premium products become less popular. A store brand is distinguished because sales of store brands tend to increase in times of inflation. Another action is offering discounts on basic goods, which are supposed to increase sales of other, more expensive brands when buying in a given store. Another thing that companies do is the so-called downsizing, i.e. deliberately reducing the weight or quantity of products in the package or the content of the main (more expensive) ingredients in the product while maintaining the same price, used mainly to reduce costs and increase profitability (Biznes Onet).

People's beliefs are not logical because they assess uncertainty not on the basis of facts, but on feelings. In turn, companies believe that the best antidote to price increases is to use a more aggressive loyalty program or a loyalty-boosting tool. This article is an attempt to verify these behaviors and actions. The aim of the article is to verify the hypothesis about the effectiveness of using pro-loyalty actions by companies during high inflation.

The opinions of 119 consumers on their purchases and loyalty to companies during high inflation were analyzed. This group was deliberately selected so that only those responsible for the main food purchases in the household participated in the study. Therefore, units considered typical in terms of the objectives of the overall study (Rószkiewicz, 2002) and (Escher, 2023) were examined.

The objective formulated in this way was translated into three research questions, but concerning the overall study:

**RQ1:** What are the purchasing behaviors during the period of high inflation?

**RQ2:** What are the opinions of consumers regarding loyalty towards companies?

**RQ3:** What are the observations of consumers regarding the use of loyalty programs by companies?

For the purposes of this article, some of the questions that concerned consumer behavior and their reception of pro-loyalty programs and tools were used.

The survey method was used in the research, implemented using the CAWI technique, which is a form of an online survey. The research tool was a survey questionnaire. The research used non-random sampling, i.e. the selection of typical units.

The data were statistically processed to examine the independence between post-inflationary buyer behavior and company actions using the chi-square test. The chi-square test examines whether the data are independent of each other. In this case, a null hypothesis was put forward, which assumes that there is no relationship between post-inflationary customer behavior and company pro-loyalty actions. The alternative hypothesis assumes that pro-loyalty actions affect customer behavior during periods of high inflation. The output table contains empirical (observed) data. For further analysis, theoretical data should be determined for each cell according to formula 1.

$$n'_{ij} = \frac{n_{i.} * n_{.j}}{\sum_{i,j=1}^{n} n_{ij}}$$
(1)

where:

ni. - boundary value of rows I;

#### n.j - boundary value of columns j;

#### $\sum$ nij - sum of all observations.

After determining the theoretical values for each of the cells of the output table, the value of the empirical chi-square statistic can be calculated according to formula 2.

$$\chi^2 = \sum_{i=1}^k \sum_{j=1}^s \frac{(n_{ij} - n'_{ij})^2}{n'_{ij}}$$
(2)

where:

nij – empirical (observed) values of cell ij;

n'ij – theoretical values of cell ij.

The  $\chi^2$  statistic calculated in this way is compared with the theoretical statistic taken from chi-square tables with (k-i)\*(s-1) degrees of freedom at the assumed probability. Most often, a 5% chance of making an error is assumed, i.e. 0.05 in the chi-square distribution table.

#### 4. Results

The results used in this article are part of a larger whole. Almost  $\frac{3}{4}$  (68.7%) of women took part in this study, and only slightly over  $\frac{1}{4}$  (30.3%) of men. This structure is reflected in reality, where women more often make purchases of basic goods.

The survey questionnaire included several important questions that were an introduction to this article. The answers to one of them indicate that almost all respondents are loyal to some company. This was in the range of over 90%.

Another important question was to check how many points respondents feel loyal to a given company. It turns out that almost 80% of respondents declare their loyalty at a high level.

The questions related to the topic of inflation confirmed that respondents feel its effects. Again, almost 90% of respondents selected this option. Despite this, almost all respondents (93%) are still loyal to their favorite companies despite inflation, but at the same time, more than half (58%) have not observed companies using particularly attractive discounts, rebates, or rewards and receiving any additional value. This in turn affects the feeling of being treated individually and exceptionally.

The main topic of this article is the relationship between inflation and related pro-loyalty actions of companies and the behavior of their loyal customers. In other words, the article verifies the opinion on whether and to what extent pro-loyalty actions of companies reduce high inflation experienced by their customers. The hypothesis assumes that there is no relationship between post-inflationary behavior of customers and the actions of companies. In order to verify it, 119 people, customers of various industries, were surveyed. The results of the study are presented in Table 1.

	Without changes	I buy a little less	I'd rather give up on the purchase	I definitely won't buy it
Loyalty programs	12	45	7	3
Discounts, prizes	14	48	4	0
Better quality products	1	16	1	0
Cheaper products	10	21	3	2
Better quality customer service	7	25	5	1
Clear communication about price increases	10	27	3	2
Taking care of the client	12	39	5	1
Loyalty to the company	26	69	8	3
More information	14	36	4	1
Individualization	6	35	5	2

#### Table 1.

Buyer reactions to inflation and company actions

Source: Own study based on research.

Due to the fact that the calculation of the  $\chi^2$  statistic requires a count of at least 5, the responses "I rather give up the purchase" and "I definitely give up the purchase" were combined. This is how Table 2 was created. With the column "I give up the purchase", which is already the basis for calculations. It should also be emphasized that there were no responses where respondents declared an increase in willingness to make purchases after companies used loyalty programs or tools.

After standardizing the data, the theoretical values of the ij cells were calculated. They are presented in Table 3.

### Table 2.

Modified buyer response numbers to inflation and firm actions

	Without changes	I buy a little less	I'd rather give up on the purchase	Total
Loyalty programs	12	45	7	64
Discounts, prizes	14	48	4	67
Better quality products	1	16	1	18
Cheaper products	10	21	3	34
Better quality customer service	7	25	5	37
Clear communication about price increases	10	27	3	40
Taking care of the client	12	39	5	56
Loyalty to the company	26	69	8	103
More information	14	36	4	54
Individualization	6	35	5	46
Total	112	361	60	533

Source: Own study based on research.

	J 1				
	Without changes	I buy a little less	I'd rather give up on the purchase	Total	
Loyalty programs	14,1	45,4	7,5	67,0	
Discounts, prizes	13,9	44,7	7,4	66,0	
Better quality products	3,8	12,2	2,0	18,0	
Cheaper products	7,6	24,4	4,1	36,0	
Better quality customer service	8,0	25,7	4,3	38,0	
Clear communication about price increases	8,8	28,4	4,7	42,0	
Taking care of the client	12,0	38,6	6,4	57,0	
Loyalty to the company	22,3	71,8	11,9	106,0	
More information	11,6	37,3	6,2	55,0	
Individualization	10,1	32,5	5,4	48,0	
Total	112,0	361,0	60,0	533,0	

Table 3.

Theoretical numbers of buyers' reactions to inflation and companies' actions

Source: Own study based on research.

According to the chi-square test procedure, the theoretical and observed numbers were used to calculate the empirical chi-square statistic.

$$\chi^{2} = \frac{(14 - 14, 1)^{2}}{14, 1} + \frac{(45 - 45, 4)^{2}}{45, 4} + \frac{(7 - 7, 5)^{2}}{14, 1} + \dots +$$
(3)  
+ \dots + \frac{(35 - 32, 5)^{2}}{32, 5} + \frac{(5 - 5, 4)^{2}}{5, 4} =   
= 13.2

The empirical statistics were compared with the theoretical statistics from the chi-square distribution tables with the appropriate degrees of freedom. The degrees of freedom were calculated according to the formula (number of rows -1)\*(number of columns-1). In this case, the number of degrees of freedom will be 18, because (10-1)\*(3-1), and the confidence level – 0.95. The theoretical statistics from the chi-square distribution tables with 18 degrees of freedom and significance at the 95% level is 28.8693.

The empirical statistic is  $\Box 2$  13.2 and is lower than the theoretical statistic (28.8693). Therefore, there is no basis for rejecting the hypothesis of independence of features with the given probability (0.95). Based on this result, it should be stated that with 95% probability, the actions of companies and the behavior of customers are independent of each other. This means that according to the conducted research, companies react to inflation, but their marketing activities are not a sufficient stimulus to stop its effects. Customers at best buy the same amount, and most often less, than before inflation.

## 5. Discussion

There is a common belief that loyalty programs are always a way to keep loyal customers with a company, but in conditions of high inflation this situation may change. High inflation causes prices to rise and consumers buy fewer products. This has also been shown by the research in this article. The research shows that in a situation of high inflation, higher prices, consumers are still loyal to their favorite companies or reduce their purchases and buy slightly fewer products. Companies could alleviate such a situation by using various tools such as price reductions or various types of promotions. Companies that want to maintain customer loyalty must focus on offering competitive prices, proving that their products have value. Companies should also honestly communicate changes to the product to the customer and also provide the highest level of customer service.

### 6. Conclusion

The article presents the results of research on consumer behavior on the market in conditions of high inflation. Inflation in Poland has been systematically falling since the beginning of 2023, when it reached its highest level of 18.4% in February. Since then, a gradual decline in the inflation rate has been observed, which in the first quarter of 2024 reached a level below 3%. However, since April 2024, a renewed increase in inflation has been visible.

During high inflation, consumers can change their shopping behavior at the initial stage of becoming aware of their needs. They can reassess their needs, and they can give up some purchases that are not essential. High inflation leads to a decrease in customer loyalty, because they are forced to look for savings and therefore look for other, better offers for them.

The main topic of this article is the relationship between inflation and the related pro-loyalty activities of companies, and the behavior of their loyal customers. In other words, the article verifies the opinion on whether and to what extent pro-loyalty activities of companies reduce the high inflation felt by their customers.

The hypothesis assumed that there is no relationship between post-inflationary customer behavior and company actions. According to the conducted research, it turned out that companies react to inflation, but their marketing activities are not a sufficient stimulus to stop its effects. Customers at best buy the same amount, and most often less, than before inflation. It is recommended to conduct similar studies after some time, when inflation increases significantly again and it will be possible to compare the results.

# References

- Alemany, Ch. (2024). Maintaining Customer Loyalty in the Face of Inflation. *Harvard Business Review*. Retrieved from https://hbr.org/2024/02/maintaining-customer-loyalty-in-the-face-of-inflation, 10.11.2024
- Antonides, G., Van Raaij, W.F. (2003). Zachowanie konsumenta. Wydawnictwo Naukowe PWN. Warszawa. Retrieved from https://bazhum.muzhp.pl/media/files/Zeszyty\_Naukowe\_Ostroleckiego\_Towarzystwa\_Naukowego/Zeszyty\_Naukowe\_Ostroleckiego\_Towarz ystwa\_Naukowego-r2007-t21/Zeszyty\_Naukowe\_Ostroleckiego\_Towarzystwa\_Naukowego-r2007-t21-s207-231.pdf, 11.11.2024.
- 3. Bryan, M.F. (1997). On the Origin and Evolution of the Word Inflation. Economic Commentary, Federal Reserve Bank of Cleveland.
- 4. Cantillon, R. (2010). An Essay on Economic Theory. In: Thornton, M. (Ed.) *Translated by Chantal Saucier*. Auburn, Ala: Ludwig von Mises Institute.
- Depa, E. (2017). Etyka czy Ekonomia. Zjawisko inflacji –przyczyny, rodzaje i skutki. In: Zimny, J. (Ed.) *Ekonomia człowieka wymiary i aspekty, 28*. Retrieved from https://pedkat.pl/images/ksiazki/Ekonomia\_cz%C5%82owieka\_-\_wymiary\_i\_aspekty\_.pdf#page=-27, 10.11.2024.
- Escher, I. (2023). Wprowadzenie do badań marketingowych. Katedra Zachowań Organizacyjnych i Marketingu, Wydział Nauk Ekonomicznych i Zarządzania, Uniwersytet M. Kopernika w Toruniu, Toruń 2023 (1-53).
- Friedman, M. (1968). Inflation: Causes and Consequences. First Lecture. In: *Inflation, Monetary Policy and the Balance of Payments, Englewood Cliffs,* N.J.: Prentice-Hall (21– 46).
- 8. Michalski, T. (2016). Uwaga na odchudzone produkty. Jak nie dać się złapać przy sklepowej półce? Retrieved from http://biznes.onet.pl/wiadomosci/handel/downsizing-czylizmniejszanie-wagi-jak-nie-dac-sie-zlapac/cgx619 10.11.2024.
- 9. Mises, L. von (1953). *The Theory of Money and Credit. Translated by H. E. Batson.* New Haven, Conn.: Yale University Press. German original published in 1912.
- 10. Mousten-Hansen, K.J., Newman, J.R. (2022). What Is Inflation? Clarifying and Justifying Rothbard's Definition. *The Quarerly Journal of Ausrian Economics*, 25(4), XX–XX, 148.
- 11. Nowa Encyklopedia Powszechna PWN 1996, Warszawa: PWN. Retrieved from: https://bazhum.muzhp.pl/media/files/Zeszyty\_Naukowe\_Ostroleckiego\_Towarzystwa\_Naukowego/ Zeszyty\_Naukowe\_Ostroleckiego\_Towarzystwa\_Naukowego-r2007-t21/Zeszyty\_Naukowe\_Ostroleckiego\_Towarzystwa\_Naukowego-r2007-t21-s207-231/.pdf, 11.11.2024.
- 12. Retrieved from: https://www.marketingbusinessblog.pl/2011-2023-najpopularniejsze-programy-lojalnosciowe/, 11.11.2024.

- Retrieved from: https://ksiegowosc.infor.pl/obrot-gospodarczy/dzialalnosc-gospodarcza/-5484039,Program-lojalnosciowy-w-czasie-inflacji-Klienci-szukaja-oszczednosci.html, 11.11.2024.
- 14. Retrieved from: https://300gospodarka.pl/news/inflacja-w-polsce-na-przestrzeni-lat-wy-kresy-gus-nbp, 10.11.2024.
- 15. Retrieved from: https://www.money.pl/gospodarka/nowe-dane-o-inflacji-gus-odslonil-karty-7076578446236544a.html, 10.11.2024.
- 16. Retrieved from: https://focusonbusiness.eu/pl/wiadomosci/inflacja-wielki-test-lojalnosci-konsumentow/2538, 10.11.2024.
- 17. Rószkiewicz M. (2002). Metody ilościowe w badaniach marketingowych. Warszawa: PWN.
- 18. Rudnicki, L. (2000). Zachowanie konsumentów na rynku. Warszawa: PWE.
- 19. Sudolska A. (2011). Zarządzanie doświadczeniami klientów jako kluczowy czynnik w procesie budowania ich lojalności. Zeszyty Naukowe Uniwersytetu Szczecińskiego, Ekonomiczne Problemy Usług, 72(660), 275-284.
- 20. Żuchowski, I., Brelik, A. (2007). Wybrane zagadnienia teorii zachowania konsumenta. Zeszyty naukowe Ostołęckiego Towarzystwa Naukowego, 21, 207-231.