
Explosions in Demand: An Analysis of Polish Customers' Insights

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Abstract:

Purpose: The purpose of the paper is to present the phenomenon of explosion in demand against the background of the theory of economics, marketing and social psychology, and subsequently to analyse the attitudes and behaviour of consumers towards this phenomenon. This analysis makes it possible to draw conclusions regarding the effective management of enterprises for whose offers there has been an explosion in demand.

Methodology: The analysis of customers' attitudes and behaviour towards the phenomenon of explosion in demand was based on the results of a survey conducted in Poland in January 2021 during the COVID-19 pandemic. The study included 1,000 adult Poles who declared having higher education or were still studying at a higher education level.

Findings: Based on the results of the research, the attitudes and behaviours of consumers towards the phenomenon of explosion in demand were characterised. It was shown that their dual (egotistic and inertial) nature justifies the logic of intertemporal substitution, present in the assumptions of modern macroeconomic theories, and recommendations for enterprises were formulated regarding the ways to prepare for the situation of explosion in demand and undertaking marketing activities.

Practical implications: The results of research on consumer attitudes and behaviour in the conditions of an explosion in demand will enable enterprises to prosper in the longer term without losing their favourable image and consumer loyalty. The concepts from the area of economics and demarketing presented in the article will make it easier for enterprises to develop and implement appropriate marketing activities.

Originality/Value: The paper presents original definitions and research on demand explosions. This research was preceded by literature studies in the field of economics, marketing and social psychology, which allowed the authors to identify a research gap regarding consumer attitudes and behaviours towards the phenomenon of explosion in demand, as well as to define the directions of further research.

Keywords: Explosion of demand, customer behaviour, marketing management in pandemic.

JEL codes: M20, M21, M30, M31, M38.

Paper Type: Research Paper.

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1. Introduction

Explosion in demand (or demand explosion) is its rapid growth, the scale of which is surprising both for producers and consumers of the products or services that are enjoying extraordinary success. Producers have a problem with delivering the desired offer to the market in the right quantity, quality, to the right place and at the right time, and consumers - with its purchase. Both on the supply side of the market, i.e. producers and traders, and on the demand side, i.e. consumers, extraordinary measures must be taken, often requiring cooperation and mutual understanding. The issue of explosion in demand has not been sufficiently described in scientific literature, even though it has been present in practice since the beginnings of trade. On the threshold of the third decade of the 21st century, it has assumed an unprecedented scale. Rapid increases in demand for certain groups of goods and services, unpredictable in terms of amount and duration, constitute a huge problem related to the management of manufacturing and trading companies. In extreme cases, enterprises unprepared for a sharp increase in demand go bankrupt.

The reasons for explosions in demand can vary. In the pre-pandemic period, these were weather phenomena, fashion trends started by celebrities, or technical innovations unexpectedly well received by the markets. During the pandemic, i.e. since the spring of 2020, the demand for certain products or services exploded on the initiative of consumers (e.g., buying supplies of food products or household chemicals), was initiated by legal provisions and other regulations (masks and face shields, medical protective gloves) or forced by the fight against COVID-19 (vaccines, ventilators, oxygen, protective clothing). Explosions in demand also occur in the periods in which pandemic restrictions are lifted, in industries where, due to these restrictions, the demand was dormant or delayed. This happens mainly in the area of services (hairdressing, beauty, tourist services, wedding planning, etc.) and in the trade of products that are of little use under pandemic restrictions (e.g. clothing and footwear for special occasions).

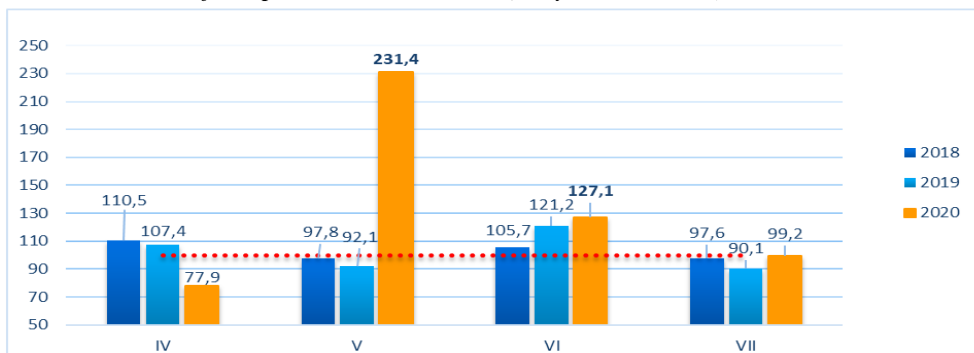
The analysis of foreign and Polish specialist economic and financial press shows that an explosion in demand may result in either permanent increases in the sale of products or services, or only temporary ones, with a duration that is difficult to predict. Permanent increases in sales preceded by a sharp increase in demand and signifying a long-term boom for products or services are usually associated with trends in the development of new technologies, social changes or state policies. They occurred on a large scale in the past in the case of optical fibres (Montgomery, 1976), diesel fuel (Bensaid, 2004), and in the pandemic period - in the following industries: e-commerce, couriers, express deliveries and parcels (Łaniewski, 2020), computer software and streaming, as well as Big Data services (IEEE Spectrum, 2020; DataCenterNews, 2021).

Periodic increases in sales preceded by an explosion in demand are usually associated with extreme weather events and catastrophes, and in the years 2020-

2021 - with a pandemic. Demand in these cases is triggered by a sudden emergence of consumer needs or is associated with legislation that stifles or releases it on a large scale. Examples of products and services with periodic sales increases of this type are as follows: offers related to remote work and online education during a pandemic (Polish Economic Institute, 2020), communication services during a disaster (Tani *et al.*, 2020), the automotive market in France after the pandemic collapse (Druś, 2021), retail sales in the US after the third wave of the pandemic (Morawski, 2021).

An example of a temporary increase in demand with unpredictable time of duration and achieved level of sales value was the demand for textiles and clothing in May and June 2020 after the announcement of epidemic in Poland (Journal of Laws, 2020, item 522). This category of products includes, among others, masks and protective clothing, which are necessary to meet the requirements of the sanitary regime in the fight against the pandemic.

Figure 1. Explosion in demand in the clothing and textile industry during the first wave of the pandemic in Poland (May - June 2020)



Source: Own creation based on Statistics Poland 2019-2021.

2. The Phenomenon of Explosion in Demand Against the Background of the Concept of Business Cycles in the Theory of Economics

So far, the phenomenon of explosion in demand has not been fully explained and precisely interpreted in economic literature. The so-called “positive demand shock” occurs as a situation of a peculiar market imbalance that provides the basis for an analysis of the actions and behaviour of market participants that restore the equilibrium in the market. In hypothetical considerations, it can be assumed that such actions may consist in government intervention in the form of raising interest rates and thus cooling the economy, cost adjustments, where the pressure of new wage demands may result in an increase in production personnel costs, and in the longer term the predicted economic growth will enforce an increase both in the level of private and state investments, which will result in an increase in employment and in physical capital resources in the economy (Szymaniak and Zygula, 2009).

From the point of view of the theory of economic cycles, there is no explanation for it in classical theories of economic fluctuations, neither in monetarist nor in Keynesian (Siekierski, 2012). Demand for a specific good that is dynamically growing and sustained on a high level can be treated as a symptom of fluctuations in the supply-demand relationship that show a fragment or a specific case of a wider situation of disturbing the market equilibrium, which does not have to be subject to regular cyclicity. This irregularity of such phenomena leads to the assumption that an attempt to explain it on macroeconomic grounds can be based on two theories of economic fluctuations: the real business-cycle theory and the views of the so-called new Keynesians, which develop the former. Their distinguishing features are: disregarding the regularity of economic fluctuations (which is the result of the high complexity of the conditions of the market game and its dynamic course) and the assumption that their genesis lies in real and specifically non-financial factors.

The starting point in the models of the real business cycle is the assumption that technological shocks are the source of economic fluctuations. Technological progress is not continuous and smooth, but rather unpredictable and irregular (Kydlan and Prescott, 1982). Its impact on economic development is illustrated by the mechanism of creative destruction, described by J. Schumpeter (1942), and then explained in many contemporary model concepts regarding the development of entrepreneurship, business model portfolios, organisational networks, and development of information technology (Stepnicka, 2009).

Models of the real business cycle do not rule out that other supply and demand shocks, which trigger changes in productivity, are also important for economic fluctuations. These are various natural disasters such as floods, earthquakes, droughts, changes in the prices of factors of production (as during oil shocks), wars, political upheavals and social unrest. They also include state activity that limits the functioning of the market mechanism, changes in management style, or the development of new production techniques (Snowdon, Vane, and Wynarczyk, 1998).

Among the main model assumptions of this theory related to the phenomenon of explosion in demand, the following should be mentioned: 1) fluctuations in production and employment, which are driven by large, irregular changes in production technology; 2) the pace of technological progress, which is subject to irregular fluctuations, while supply-side shocks cause fluctuations in production and employment; 3) lack of empirical justification in the analysis of fluctuations and trends for distinguishing between short and long periods; 4) low effectiveness of stabilisation measures - they only cause various kinds of disruptions in the market economy.

The models of *the new Keynesians* (J.E. Stiglitz, G.A. Akerlof, E.S. Phelps, P. Krugman) accepted the hypothesis of rational expectations (Lucas, 1975) and supply shocks as possible sources of economic fluctuations (Phelps, 1968). Thus,

imperfect competition, incomplete markets, as well as imperfect and often asymmetric information are assumed, and the source of economic fluctuations are supply or demand shocks that occur randomly in the economy. Their translation into fluctuations in production and employment results mainly from the intertemporal substitution of labour input. The idea of intertemporal substitution is that economic entities work less (have more free time) when the real wage is temporarily low, and they work more (have less free time) when the real wage is temporarily high. The intertemporal substitution of free time and work time is incorporated into the models of the real business cycle in the form of a household utility function. Intertemporal substitution of labour input is associated with a compromise between the current work time and free time. The amount of work delivered affects not only current but also future consumption possibilities. Thus, the choice of the current labour supply can be treated as an intertemporal choice.

For the new Keynesians, the business cycle is the result of market imbalance that ensues from price rigidity and the inability to clear markets immediately following a shock. Rigid wages or prices do not allow wages to be lowered quickly or prices raised, resulting in a decline in employment, a decline in demand and, as a result, product shortages. The new Keynesian economy, in line with the pro-cyclical development of employment, investment, state expenditure, productivity and consumption, justifies the practice of flexible changes in state policy in the context of changing economic conditions (Siekierski, 2004).

Intervention policy is necessary in the face of large shocks which may possibly have long-term effects, as the adjustment process in a market economy is slow. In a situation where changes in the supply-demand relationship, although large and dynamic, do not seem to be long-term (and an explosion in demand is one of them), it can be assumed that “the market will cope with it.” This is in line with the logic of intertemporal substitution as a universal principle of market and business behaviour.

Assuming that embedding the phenomenon of galloping demand in the theory of business cycles requires indicating the source of disturbances and the mechanism of spreading its effects on the market, the following explanation of the phenomenon of explosion in demand can be adopted:

a) *source*: dramatic discontinuity of social and economic processes generated by technological shocks, demand and supply shocks; explosion in demand concerns specific goods and thus these sources can be related to specific industries or individual enterprises. The adoption of a meso- and micro-scale makes it possible to describe these phenomena more precisely, and to assume that their intensity and dynamics of changes will be strongly diversified. The effects they will cause may be very complex and directionally selective (i.e., not equally applicable to the entire economy);

b) *transmission mechanism*: an extraordinary demand would require a swift reaction from the market, but delays in adjusting the market to the balance of

supply and demand as a result of wage and price rigidity will result in both consumers and producers being faced with a series of decisions which, in conditions of asymmetry of information, may have the nature of intertemporal choices, simple maximisation of the goal (for consumers - quick purchase of the good at the most favourable price, for producers - maximum profit on sales in the shortest possible time) must give way to projection of the effects that may appear in decisions which are postponed and lead to suboptimal effects.

The rationality of the choice will also have to take into account the logic of substitution of period, place and safety. This justifies the study of the phenomenon of galloping demand as an effect and cause of market behaviour.

3. Concepts in the Field of Marketing and Social Psychology Relating to Situations of Excess or Unwanted Demand

Scientific literature lacks publications on the market behaviour of consumers in the conditions of an explosion in demand and the strategies of companies in such situations. However, there are useful publications on the so-called demarketing, also known as negative marketing. Its purpose is to limit excess or undesirable demand without long-term damage to the company's financial performance and image.

The concept of traditional marketing was created in the period of oversupply of products and services. It was based on a pattern well-proven over the years: enterprises defining market goals, getting to know customers and meeting their current or future needs. The purpose of these activities was to increase the sale of the offer, i.e. to increase the demand to the desired level of supply. Kotler and Levy (1971) pointed out the fact that marketing should be understood more broadly: as a business function whose purpose is to control the level and structure of demand in order to enable the achievement of long-term strategic goals of the company. According to this concept, excess demand is a marketing problem similar to that of oversupply. The company must find ways to reduce demand to the level of supply without compromising its long-term relationships with customers. They called marketing carried out in the conditions of shortage economy "creative demarketing." They distinguished three different types of demarketing:

1. General demarketing: It is used when a company wants to reduce the demand for its offer due to temporary shortages of products or inability to provide services, chronic overpopularity or the desire to withdraw it from sale (product/service elimination). In the case of a temporary shortage of the offer, the company undertakes two types of actions. Firstly, it tries to curb the growth of demand, and secondly, it has to decide who, in what quantity and how will get the "hot product" of which there will not be enough for all interested customers. Reducing the level of demand can be a challenge beyond the firm's capacity, but sometimes it can be achieved. For example, water or electricity suppliers use advertising campaigns to

encourage a reduction in the consumption of these goods during periods of greatest demand.

2. *Selective demarketing*: In this case, the company discourages certain customer groups from purchasing its offer. For example, manufacturers of successful, prestigious, snobbish offers place high demands on traders who are willing to be their sales agents. The use of selective demarketing requires caution so that it does not turn into the so-called discriminatory marketing due to the unequal treatment of customers, as it is considered unethical and even illegal in many countries.

3. *Ostensible demarketing*: It is based on the apparent discouragement of purchases, while in fact it aims to increase them. For example, a company creates the impression that an offer is unavailable in order to increase prices or induce consumers to stockpile products that are hard to come by. This strategy is effective because, according to the concept of behavioural economics, most people's decisions are not rational. Therefore, the apparent "discouraging" of young people from attending a concert of a popular band by arguing that there will be crowds at it has the opposite effect. Kotler and Levy also mention the fourth type of demarketing, unintentional demarketing, which causes a decrease in demand for an offer as a result of failed or unethical marketing activities (e.g., advertising campaigns). However, they do not see this kind of demarketing as a deliberate strategy, but rather as an "accident."

Many studies referring to the attitudes and behaviour of consumers as recipients of demarketing in the conditions of excess demand or lack of offer were multidisciplinary, combining issues from the fields of marketing, behavioural economics and social psychology. According to Lefebvre and Kotler (2011), demarketing is used by enterprises as well as state institutions and social organisations. Companies use exactly the same instruments that are appropriate for classic marketing, i.e. product, price, place and promotion (4 Ps), trying to limit the demand or delay it. Institutions and organisations use demarketing to limit or eliminate consumer behaviour and choices that harm their health or safety, or that degrade the social or natural environment.

The research by Miklos-Thal and Juanjuan (2011) confirms the theory of Kotler and Levy (1971) regarding ostensible demarketing. It shows that retailers use this type of demarketing that discourages or hinders purchases in order for consumers to form quality perceptions. Cialdini (2008) argues that people have a psychological tendency to desire things that are less accessible and that can make them feel unique. This makes advertising agencies promote company offers as "limited availability" or "short time only." Amaldoss and Jain (2005) show that the limited availability of the offer satisfies the consumers' desire for exclusivity and conformity. Balachander (2005) states that limited access to the offer is a sign of its high quality for consumers. This principle works mainly for prestigious products and services, and

does not apply to commodity products, staple products or new-to-the-world products.

The above-discussed concepts of consumer attitudes and behaviours as well as companies' reactions to excess or undesirable demand can only be partially applied to the situation of an explosion in demand which we are experiencing today, especially in the pandemic and post-pandemic period. The differences that indicate the need for further research are as follows:

- 1) an explosion in demand is a special case of excess demand when there is a sudden and unbearable increase in demand of an unpredictable level and timing followed by a sharp decline in sales, well below the level from before the explosion;
- 2) it is not always that explosions in demand can be curbed by the company with prices, as these - for example in a situation of a pandemic - are regulated by law;
- 3) product shortages do not always result from consumer fashion and snobbery, but more and more often from the urgent need to ensure the safety of oneself and one's loved ones. It is unethical to restrict access to, for example, protective or life-saving products by means of demarketing instruments that build the brand or drive prices.

4. Research Problem and Scope of Research

The research problem addressed in this paper is to inventory the cases of industries and brands of products that experienced the phenomenon of an explosion in demand, to determine its genesis, and to identify customer attitudes and behaviour towards this phenomenon. On the basis of the expressed opinions, customers' expectations were also indicated of enterprises for whose offer there was an explosion in demand. The study was conducted in January 2021 in the form of an online survey on a group of 1,000 adult Poles. The research sample accepted for the survey was characterised by a structure that guaranteed its representativeness in relation to the main characteristics describing the consumer population in Poland. It is as follows:

- gender: women - 61%, men - 39%,
- age: 18-24 years old - 13%, 25-41 years old - 42%, 42-56 years old - 26%, 57-75 years old - 18%, 76 years old and over - 1%,
- education: secondary - 9%, higher - 91%,
- financial situation: very good - 11%, good - 41%, average - 44%, bad - 3%, very bad - 1%.

The research covered the following issues:

- 1) identifying cases of an explosion in demand (industries, brands of products or services),
- 2) identifying inconvenience for the customer caused by excess demand,
- 3) indicating the reasons for an explosion in demand,
- 4) defining one's own position towards this phenomenon,

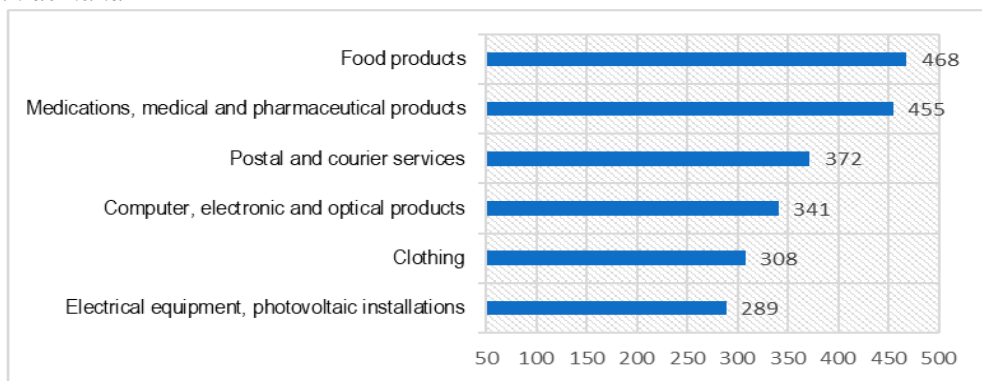
- 5) defining the customer's reaction to the purchase of products for which there was or still is an extraordinary demand,
- 6) indicating actions expected from producers of such goods as an ongoing response to an explosion in demand,
- 7) defining the conditions for producers to achieve business success in the long term based on the experience of excess demand for their offer.

5. Analysis of the Results of Empirical Research

5.1 Identification of Cases of an Explosion in Demand Experienced by Respondents

The industries in which an explosion in demand occurred, most often indicated by the respondents on the basis of their own experience, are presented in Figure 2. These opinions correspond with the situation during the first and second waves of the pandemic and are confirmed by the data from Statistics Poland 2020-2021.

Figure 2. *The most frequently indicated industries in which there was an explosion in demand*



Source: Own creation.

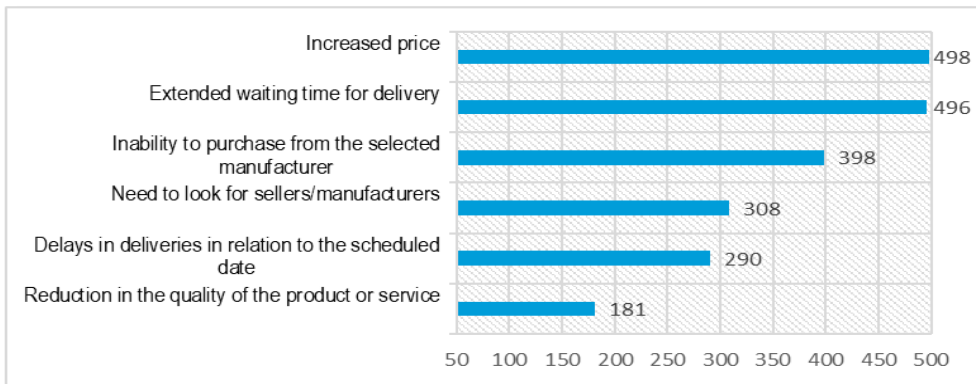
5.2 Negative Experiences Related to Explosions in Demand

Answers to the question about the inconvenience suffered by the respondents in connection with the experienced explosions in demand are presented in Figure 3. The most problematic experiences for the respondents were: an increase in the price of a product or service, an extended waiting time for delivery and delays in deliveries, the inability to purchase a good from a given manufacturer or seller, and a reduction in the quality of the desired good, or its substitution with another good that does not fully meet the customer's expectations.

The scale and nature of these inconveniences shows the specific brutal face of the market, in the conditions of excess demand, the response of producers (at least in a

short-term perspective) is to charge the customer with costs; thus, it is hardly surprising that they may lose confidence in the brand and its manufacturer/seller. The positive reaction of suppliers usually boils down to an apology for the situation, and to a much lesser extent concerns financial compensation (e.g., price reduction).

Figure 3. *The inconvenience associated with the explosion in demand for a given product or service*



Source: Own creation.

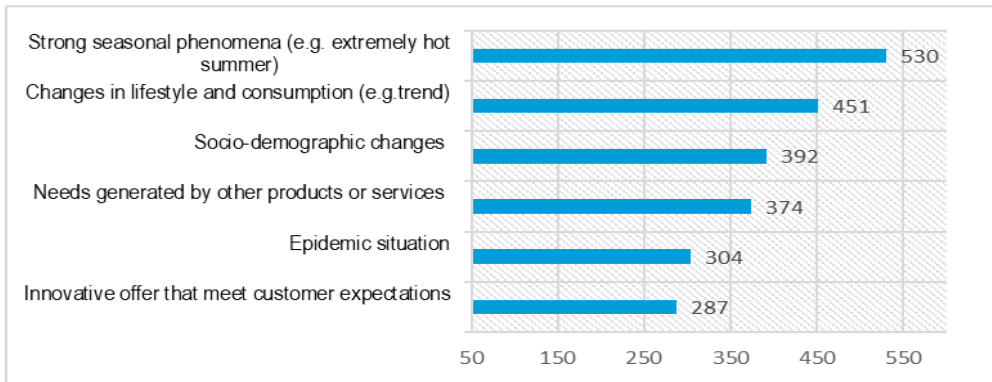
5.3 The Reasons for an Explosion in Demand

In the perception of the causes of the phenomenon of rapidly growing demand, the nature of the industry in which it occurs explains a lot. As can be seen in Figure 4, the perception of objective, macroeconomic premises prevails, in particular those regarding: strong seasonal phenomena (e.g., extremely hot and dry summer, cold winter, etc.), changes in the socio-demographic situation (population movement and migration, people's awareness and activity, generational changes), strong cultural trends shaping distinctive lifestyle and consumption models, epidemiological phenomena (e.g., the COVID-19 pandemic).

The causes are also attributed, though to a lesser extent, to the development of technology offering new generations of products and to aggressive marketing promotion. This type of premises may generate the effect of stabilising the image of the phenomenon of explosion in demand as independent of the course of competitive struggle.

Since, as a component of the market reality, it has its genesis in the phenomena of nature and social processes, it should be considered not only as a factor dynamising the market, but also in the strategic perspective as a source of opportunities and threats which are a challenge primarily for producers. The fact that, in relation to a longer time perspective, the respondents did not indicate the pandemic as the main cause of the explosion in demand, gives hope that the research will be useful also in a non-pandemic time.

Figure 4. Reasons for the explosion in demand by frequency of respondents' answers



Source: Own creation.

5.4 Consumer Attitudes and Behaviours Towards the Phenomenon of Explosion in Demand

The customer's position on the phenomenon of rapidly growing demand is mainly reactive and manifests itself in the following attitudes and behaviours (Figure 5) expressing the fear that producers will limit the supply so that it fits their capabilities, or that they will increase prices, searching for more detailed information about the product/service and terms of their purchase; buying fewer products, buying them less frequently or not buying them at all.

For the customer, exploding demand creates a dynamic situation that disrupts a certain balance and order in the market, which can lead to nervousness in their behaviour. In such situations, customers are not sure of the manufacturers' reaction, so instead of quickly deciding to buy the good that is in short supply, they can delay the purchase. The conservative nature of the customer manifests itself here as a result of various personal experiences (both positive and negative) with explosions in demand, but is also based on objective conclusions drawn from observing the situation on the market as well as on macroeconomic arguments.

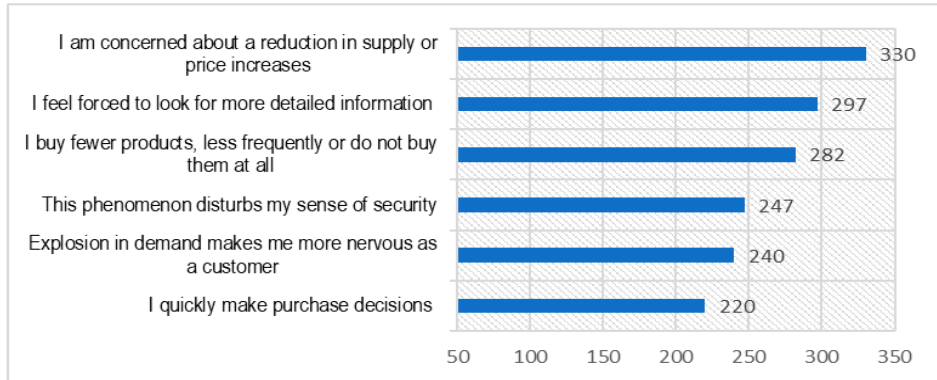
5.5 Customer Reaction after Purchasing Highly-Demanded Products

The reaction of customers after purchasing products for which there was or still is an extraordinary demand indicates that they generally coped well with such a situation and it was not a particular challenge for them (Figure 6).

The respondents express certain satisfaction with the purchase of such goods, which was probably related to increased purchasing activity, but most of all they approach such situations with cool judgement. They perceive the purchasing success not as “winning the battle for a good that is difficult to obtain,” but more as a confirmation

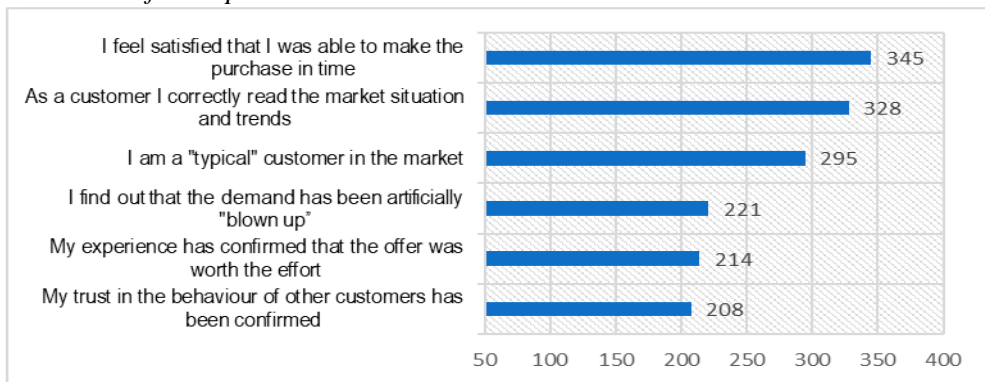
of their market intuition (accurate reading of market trends) and experience in fulfilling needs (confirming the rightness of the decision to purchase a given product through the prism of its future usefulness).

Figure 5. *The feelings and attitudes of the respondents towards the explosion in demand*



Source: Own creation.

Figure 6. *The most frequently declared reaction or feeling after a purchase in the conditions of an explosion in demand*



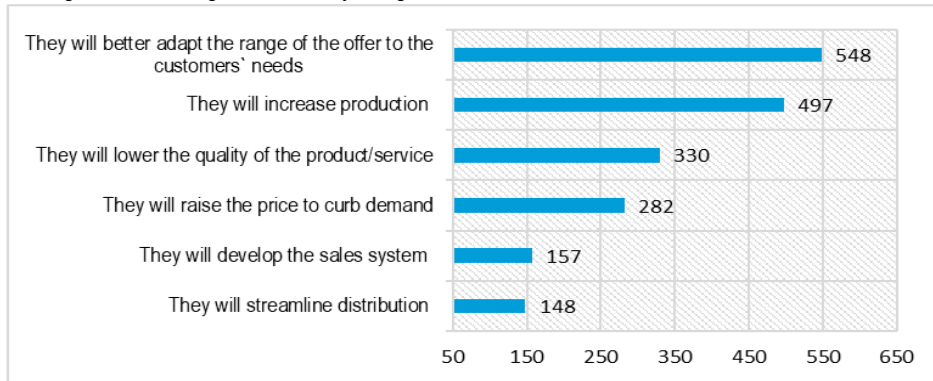
Source: Own creation.

5.6 Expected Reaction of Manufacturers to an Explosion in Demand

Customers who experience galloping demand formulate certain expectations towards producers regarding their activities on such a market. In terms of an ongoing response to the situation of severely unmet demand (the so-called operational perspective), expectations are related to two areas of activity: a) increasing the supply of products or services in terms of quantity and assortment, and the supply of an offer adjusted in terms of quality to the current needs of buyers, b) increasing the price of products, reducing their quality as a way to improve the profitability of one's business.

The first of these areas is quite clearly preferred by customers, which should be an important signal for manufacturers (Figure 7).

Figure 7. *The reaction of manufacturers in the event of an explosion in demand for their products as predicted by respondents*



Source: Own creation.

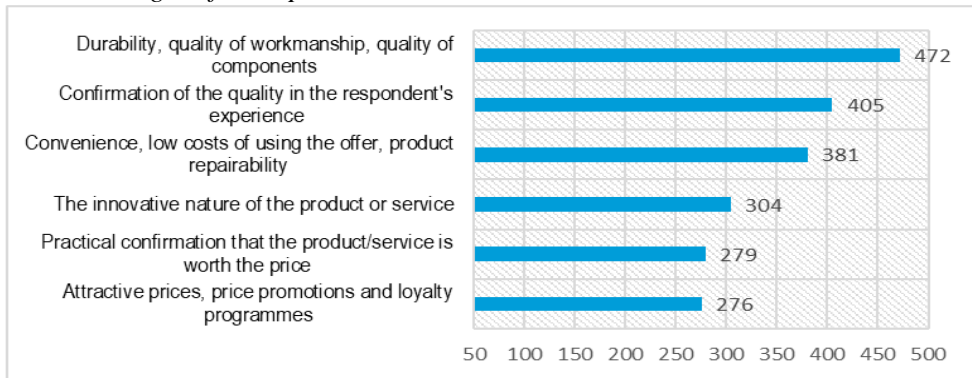
Producers should have a crisis plan in place for such a situation, taking into account, inter alia, having a well-thought-out “emergency assortment,” securing additional delivery channels, developing a calendar of marketing initiatives thanks to which the customer can be steered towards new needs, which keeps them loyal to one’s companies and existing brands. This situation can also be an opportunity to diversify one’s portfolio in order to be prepared for changes in market trends. Attention is also drawn to the significance of undertaking activities in the virtual space (presence in social media, use of content marketing, cooperation with influencers, etc.). These and many other activities aimed primarily at retaining the customer, avoiding panic and the risk of losing the company’s image, may over time turn into systemic activities, preparing the potential of companies for a new, more stable market situation.

5.7 Conditions for Achieving Business Success in the Long Term Based on the Experience of an Explosion in Demand

Expectations regarding the development of the producers' business in a strategic perspective have a clear logic - the development of technology, production and logistics, ultimately aimed at improving the market offer, in order to permanently increase the value for the customer. The opportunities offered by exploding demand are a “gift of the market” for the producer and should be translated into sustainable development of the modern business (Figure 8).

The research results show the maturity of the customer as a responsible market participant. Customers express the idea that the benefits of (even temporary) market recovery should be shared by both sides of the market game.

Figure 8. Conditions that should be met by the manufacturer or their product in order for the respondents to remain loyal to them despite the inconvenience related to the shortages of their products or services



Source: Own creation.

6. Conclusions

Excess demand is a phenomenon that strongly dynamises the situation on the market and may have a considerable impact on the customer's market behaviour. The customer, by nature, is a being whose behaviour is manifested in a multidimensional space of variables determined by extreme states: emotional or rational, with a reaction to the market situation that is immediate or delayed. In the face of galloping demand, the customer will react in two ways, quickly - adjusting to the market situation and maximising the current benefit, and in a more inertial way - with a certain amount of reflection and analytical thinking, aimed at a long-term effect of benefits of the system.

The quickness of the customer's reaction to galloping demand may stem from the transactional understanding of the market, which focuses their activity on taking advantage of the current situation of market imbalance and making a quick purchase of the product (service).

The product, even if temporarily unavailable, becomes all the more valuable and desirable, especially in situations where the customer has had unfavourable experiences with similar cases in the past. Increased customer activity aimed at purchasing a "hot" good may be stimulated by various factors: emotional involvement in obtaining the product in the conditions of its shortage; a strong desire to refer to a fashion trend; opinions about the attractiveness of the good and being "up to date" in the race to maintain the prestige of a market participant; concerns that the lack of the product may be more permanent, etc. The key factor may be information about the offer provided in various market communication channels.

The conservative nature of the customer in the face of an explosion in demand sees it as a phenomenon that is dynamic and temporary, and that disturbs the supply-demand balance, which in the long run may bring about stimulating impulses for the market and its individual participants. For the customer, it can be the circumstance of a rapid development of the market offer, implementation of new technology in the production and distribution of goods, or a change in consumption patterns and lifestyle. For the producer, it can be a chance to find new opportunities to fill a supply gap, invest in new products or services, develop key competences and verify the current business model.

The analysis of the results of research covering the issues of intentions to purchase goods for which there is excess demand, customer reactions after buying them, and expectations regarding the behaviour of the producer of such goods, both in the operational and strategic perspective, allows for the formulation of the following observations and conclusions:

- a) In the public perception, the phenomenon of explosion in demand is considered to be a manifestation of the life of the market, and not of an extraordinary catastrophic situation. Among customers, it can cause the effect of irritation, surprise and a particular mobilisation to undertake purchasing activities. The explosion in demand for a specific good, however, is temporary and does not give rise to panic and fear. Customers - even subconsciously - are convinced that a typical market (here in the sense of: not devastated by the actions of political forces and authorities) will cope with such a temporary imbalance. What is more, customers are aware that in situations of excess demand, which are also a problem for companies and traders, cooperation and mutual understanding are necessary.
- b) In particular phases of the customer experiencing the phenomenon of an explosion in demand, both of its natures are intertwined: *egoistic nature*, which makes them look for benefits in every market transaction and treat it as a game focused on winning, and *inertial nature*, characterised by a certain dose of reflection and analytical thinking, aimed a long-term effect of the benefits of a wider system - i.e. the market. The conservative nature of the customer in the face of an explosion in demand makes them refer to this phenomenon with a certain amount of cool judgement and caution.
- c) The research shows the dominance of the factor of rationality and appreciation of social interest over a purely transactional understanding of the market game. Nevertheless, it should be emphasised that these two logics of understanding the market are not contradictory to each other. They are rather complementary and incorporate the aforementioned logic of intertemporal choices, which in relation to such a dynamic market may generate the effect of disciplining producers to undertake efforts to develop their businesses. It will require balancing pro-active and reactive actions in order to achieve a quick financial effect (earning quick money) and consistently build brand strength.

References:

- Amaldoss, W., Jain, S. 2005. Conspicuous Consumption and Sophisticated Thinking. *Management Science*, 51(10), 1449-1466. DOI: 10.1287/mnsc.1050.0399.
- Balachander, S. 2005. The Making of a "Hot Product": A Signaling Explanation of Marketers' Scarcity Strategy. *Management Science*, 51(8), 1181-1192. DOI: 10.1287/mnsc.1050.0381.
- Bensaid, B. 2004. Road transport fuels in Europe: the explosion of demand for diesel fuel. U.S. Department of Energy Office of Scientific and Technical Information France. Available at: <https://www.osti.gov/etdeweb/biblio/20822729>.
- Cialdini, R.B. 2008. *Influence: Science and Practice*. USA: Baker and Taylor.
- DataCenterNews. 2021. Following explosion in demand, global data center market to grow 14% in 2021. Specialist data center news for North America. Available at: <https://datacenternews.us/story/following-explosion-in-demand-global-data-center-market-to-grow-14-in-2021>.
- Dębowska, K., Kłosiewicz-Górecka, U., Szymańska, A., Ważniewski, P., Zybortowicz, K. 2020. *Foresight Polska 2035. Eksperci o przyszłości przez pryzmat pandemii*. Polski Instytut Ekonomiczny, Warszawa. Available at: https://pie.net.pl/wp-content/uploads/2021/03/PIE_Raport-Foresight-Polska-2035.pdf.
- Druś, M. 2021. Francja: liczba zarejestrowanych nowych aut wzrosła o 569 proc. Puls Biznesu. Available at: <https://www.pb.pl/francja-liczba-zarejestrowanych-nowych-aut-wzrosla-o-569-proc-1115422>.
- Dziennik Ustaw. 2020. Poz. 522. Available at: <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20200000522>.
- Foster, R., Kaplan, S. 2003. *Twórcza destrukcja*. Łódź: Wydawnictwo Galaktyka.
- IEEE Spectrum. 2020. How the Internet Can Cope With the Explosion of Demand for "Right Now" Data During the Coronavirus Outbreak. Available at: <https://spectrum.ieee.org/tech-talk/telecom/internet/everyone-staying-home-because-of-covid19-is-targeting-the-internets-biggest-weak-spot>.
- Keynes, J.M. 2003. *Ogólna teoria zatrudnienia, procentu i pieniądza*, przeł. M. Kalecki, S. Rączkowski. Warszawa: Wydawnictwo Naukowe PWN.
- Kotler, P., Levy, S. 1971. Demarketing, Yes, Demarketing. *Harvard Business Review*, 49(6), 74-80.
- Kydland, F.E., Prescott, E.C. 1982. Time to build and Aggregate Fluctuations. *Econometrica*, 50(6).
- Lefebvre, R., Kotler, P. 2011. Design Thinking, Demarketing and Behavioral Economics: Fostering Interdisciplinary Growth in Social Marketing. *The SAGE Handbook of Social Marketing*, G. Hastings, K. Angus, C. Bryant (ed.).
- Lucas, R.E.Jr. 1975. An Equilibrium Model of The Business Cycle. *Journal of Political Economy*, September.
- Łaniewski P. 2020. Jak pandemia COVID-19 wpłynie na sprzedaż i dystrybucję? Puls Biznesu. Available at: <https://www.pb.pl/konferencje/sprzedaz/jak-pandemia-covid-19-wplynie-na-sprzedaz-dystrybucje-990101>.
- Miklós-Thal, J., Zhang, J. 2011. Strategic Demarketing. MIT Sloan Research Paper No. 4814-10. Available at: <https://ssrn.com/abstract=1611368> or <http://dx.doi.org/10.2139/ssrn.1611368>.
- Montgomery, J.D. 1976. The Demand Explosion of Fiber Optics. Conference: 1976 SPIE/SPSE Technical Symposium East. DOI: 10.1117/12.975705.

- Morawski, I. 2021. Eksplozja popytu w USA. Puls Biznesu. Available at: <https://www.pb.pl/eksplozja-popytu-w-usa-1113938>.
- Phelps, E.S. 1968. Money-Wage Dynamics and Labor Market Equilibrium. *Journal of Political Economy*, July-August, 678-711.
- Polski Instytut Ekonomiczny. 2020. Gwałtowny wzrost popytu na rozwiązania związane z pracą zdalną. Available at: <https://www.propertynews.pl/biura/pie-gwaltowny-wzrost-popytu-na-rozwiazania-zwiazane-z-praca-zdalna,82398.html>
- Scheuer, B. 2012. Rozwój teorii ekonomii po kryzysie. Rewolucja czy ewolucja? Wrocław: Wydawnictwo Uniwersytet Ekonomicznego we Wrocławiu.
- Schumpeter, J.A. 1942. *Capitalism, Socialism and Democracy*. USA: Harper & Brothers.
- Siekierski, J. 2004. Kierunki rozwoju współczesnej ekonomii i jej główne kwestie metodologiczne. *Roczniki Naukowe SERiA*, 6(5), 88-94.
- Siekierski, J. 2012. Nobliści w dziedzinie ekonomii o cyklach i kryzysach gospodarczych. *Zeszyty Naukowe Małopolskiej Wyższej Szkoły Ekonomicznej w Tarnowie*, 20(1), 149-166.
- Skowron, S., Szymoniuk, B. 2014. Marketing and sustainable development. *Problems of Sustainable Development*, 9(2), 39-46. DOI: 10.35784/pe.
- Snowdon, B., Vane, H.R., Dynarczyk, P. 1998. *Współczesne nurty teorii makroekonomii*. Warszawa: Wydawnictwo Naukowe PWN.
- Statistics Poland, Statistical Bulletin 3/2019, Table 59. Available at: <https://stat.gov.pl/en/topics/other-studies/informations-on-socio-economic-situation/statistical-bulletin-no-32019,4,99.html>.
- Statistics Poland, Statistical Bulletin 3/2020, Table 56. Available at: <https://stat.gov.pl/en/topics/other-studies/informations-on-socio-economic-situation/statistical-bulletin-no-32020,4,111.html>.
- Statistics Poland, Statistical Bulletin 3/2021, Table 56. Available at: <https://stat.gov.pl/en/topics/other-studies/informations-on-socio-economic-situation/statistical-bulletin-no-32021,4,123.html>.
- Stępnicka, N. 2009. *Koncepcja twórczej destrukcji J.A. Schumpetera a wyzwania współczesnej ekonomii*. Piotrków Trybunalski: Wydawnictwo Uniwersytetu Jana Kochanowskiego w Kielcach.
- Szymaniak, E., Zyguła, A. 2009. *Cykliczne wahania aktywności gospodarczej*. Kraków: Krakowskie Towarzystwo Edukacyjne sp. z o.o., Oficyna Wydawnicza AFM.
- Quiñones Cintrón, V., Von Hack, J., Pérez Rivera, M.M., Medina Velázquez, A.Y., Davis Pellot, J. 2017. The evolution of demarketing literature. *Fórum Empresarial*, 22(1), 77-108.
- Tani, S., Motoyoshi, K., Sano, H., Okamura, A., Nishiyama, H., Kato, N. 2020. Flexibility-Enhanced HTS System for Disaster Management: Responding to Communication Demand Explosion in a Disaster. *IEEE Transactions on Emerging Topics in Computing*, 8(1), 159-167. DOI: 10.1109/TETC.2017.2688078.