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BEHAVIOUR OF BUYER OF INDUSTRIAL PRODUCTS
IN CENTRALLY PLANNED ECONOMY
(Polish Experience)

1. Introduction

The economic reform announced in Poland assumes: market orientation of companies, their autonomy in decision-making process, indirect planning and management system (by means of economic instruments and not commands), decentralization of the planning process.

Despite certain positive changes there are no symptoms indicating that assumptions of the economic reform are effectively put into practice. This is due to several groups of reasons, which I will not be analyzing here. Instead, I shall only enumerate them. They include: structure of fixed assets and investments not adapted to structure of demand, excessive concentration of production, hard currency indebtedness and economic sanctions imposed by foreign countries, inflation, market disequilibrium. All of them can be treated as causes of economic disproportions. The seller's market predominates in almost all spheres of economic and social life, and this is accompanied by the monopolistic market structure with no evident signs of its change. There have been left vertical and hierarchized bureaucratic structures finding their expression, among others, in branch ministries. The economic reform tends to be poorly linked with a comprehensive socio-economic reform. There can be, moreover, seen lack of consistency and cohesion in introduction of changes in the socio-economic system, reluctant attitude towards the reform adopted by a part of administration and apathy of the society.

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This situation leads on the one hand to centralization and administrative forms of distribution of industrial products, while on the other hand such centralized distribution system generates by itself considerable constraints for restoration of companies market orientation.

2. Process of Adjustment to Shortages and Decisions of Purchasing Industrial Products

In the seller's market, it is not demand but supply which poses an effective constraint for companies. That is why adaptation of companies to shortages constitutes a basic part of the adjustment process. A company searching for industrial products adopts an active attitude towards supply and its main decisions concern not so much the choice of a product but its purchasing.

Within a short period of time, the adjustment process in companies to shortages in industrial supplies assumes three forms¹.

1. Determination of production volume at the level taking into account bottlenecks (the most restricted resources). It leads to a freeze of some fixed assets. Such a form of adjustment tends to prevail in the situation of drastic cuts in import, substantial structural disproportions in the economy, and sudden appearance of shortages in supply. Its application is, moreover, typical for the first stage of the adjustment process. Such behaviour is quite common in conditions prevailing in Poland at the present time.

2. Compulsory substitution. It represents one of major causes behind deterioration in quality of products. It should be added, however, that in economics of scarcity such compulsory substitution provides inspiration for innovations concerning new technologies, which make it possible to apply available substitutes.

3. Compulsory adaptation of production structure to available industrial products. In Poland, this form finds its expression, among others, in undertaking production of goods, which is given priority in industrial supplies within the framework of administrative distribution.

¹ See: J. K o r n a i, Economics of Shortage Vol. 1, North Holland Publishing Company, Amsterdam 1980, p. 30-81.

Shortages in provision of one company with industrial products generate supply gaps in other companies. Consequently, a multiplier effect appears with shortages in industrial supplies being spread over the entire production.

The process of purchasing a product and decisions connected with it are stretched in time. It is of a dynamic character as factors determining purchasing decisions undergo changes in the course of search for a product. There are possible different variants and stages in realization of the purchase. Thus, a lucky coincidence allows to effect a purchase at once. Lack of necessary product may induce the buyer to search for it with another seller, or revise his demand, and finally to perform a compulsory substitution. He may queue to get the necessary product from his original supplier or select a new supplier and wait in a queue (if it is shorter than the previous one)².

Before passing to discussion of factors affecting behaviour of companies in the industrial market, I would like to point out the most important characteristics of the present distribution of industrial products in Poland.

3. The Most Important Characteristics of Distribution of Industrial Products in Poland

There may be distinguished three significant characteristics of distribution of industrial products in the situation of deep shortages typical for the present situation in Poland. They are: non-price allocation criteria; predominance of administrative distribution over its other forms; and centralization of trade in industrial products.

3.1 Non-Price Criteria of Allocation

Existing shortages, unrestored market functions or its monopolistic (or semi-monopolistic) structure cause that prices for industrial products do not represent, as a rule, a hard constraint for companies. Price is deprived of its market character, and it is not an external but an internal element for a company. Conse-

² Ibidem.

quently, changes of prices do not carry effective implications. Production demand does not respond to a change of prices (unsatisfied demand, cost-based fixing of prices) or it responds to an insignificant extent. Apprehension that companies will be raising their prices excessively without raising efficiency of factors of production induces centralization of decisions concerning prices as well as control over prices charged by companies, and application of an appropriate system of taxation (progressive taxation) with all of them weakening a company's interest in application of prices based on demand criteria.

Within the framework of the economic reform, there have been introduced three parallel categories of prices: official prices - fixed centrally; regulated prices - fixed by companies but on the basis of the cost rule; and negotiable prices fixed on the way of free negotiations between the buyer and the seller (near to equilibrium prices)³. According to initial assumptions, the range of official prices was to be reduced gradually in favour of prices having market character. Anyway, negotiable prices were to encompass 75 per cent of all industrial supplies. The practice proved to be, however, entirely different.

The range of official and regulated prices and those determined by the Centre or, more precisely, controlled by it, was gradually increased instead of being decreased. For example, the range of official prices for industrial supplies was expanded in 1983 in relation to 1982 from 20 per cent to 32 per cent, while that of regulated prices from 5 per cent to 13 per cent. As a result, the range of negotiable prices was reduced correspondingly from 75 per cent to 55 per cent. In the market for agricultural products, the range of official prices grew from 65 per cent to 72 per cent and the range of negotiable prices was restricted from 35 per cent to 28 per cent⁴.

³ Uchwała nr 243 Rady Ministrów z 30 listopada 1981 r. w sprawie zasad działalności przedsiębiorstw państwowych w 1982 r. [Decree of Council of Ministers No. 243 from 30th November 1981], "Monitor Polski" 1981, nr 32, poz. 287 and Ustawa o cenach i utworzeniu urzędu ministra do spraw cen z 26 lutego 1982 r. [Decree on Prices and Office of Minister for Prices from 26th February 1982], "Dziennik Ustaw" 1982, nr 7, poz. 53, 10.

⁴ Raport Urzędu do spraw Cen dotyczący wprowadzenia i konsekwencji reformy gospodarczej w latach 1982-1983 [Report of the Office for Prices on Introduction and Consequences of the Economic Reform in 1982 and 1983].

Basing of regulated prices on costs caused on the one hand trends in companies to overstate or even generate costs⁵, while on the other hand it led to bureaucratized control of these prices and a complicated procedure of approving their changes. This became an obstacle on the way of adopting market orientation by companies and undermined their technological effectiveness⁶.

Despite the fact that bureaucratized price control was aimed, among others, at checking excessive growth of prices, it proved that official prices were growing faster than the remaining ones.

The cost rule in price-fixing encompassed all categories of prices including negotiable prices. Sellers did not see any reason why they should be negotiating prices holding their superior position in relation to buyers. Moreover, old habits and tax system would induce them to accept costs as a basis for their prices adding margins justified from the viewpoint of tax system. Anyway, recently the obligatory character of the so-called "justified costs" has been extended to include negotiable prices as well.

Supremacy of short-term decisions (immediate needs) over long-term decisions was observed in pricing of industrial products both in micro- and macroeconomic decisions.

In the situation characterized with scarcity of industrial products and internal character of prices, their allocation among various detailed goals is determined by non-price criteria. This leads to appearance of different priorities at the central level both at the stage of planning and implementation of plans.

Production priorities in the form of the so-called operational programmes and government orders are fixed at the central level. On the one hand, companies are induced to participate in these programmes and in execution of government orders, while on the other hand such participation is a condition of obtaining some industrial products being in short supply.

⁵ In order to curb such behaviour the Minister for Prices introduced a concept of justified costs and obligatory principles of estimating them (Rozporządzenie ministra do spraw cen z 31 grudnia 1982 w sprawie zasad ustalania kosztów uzasadnionych [Decree of the Minister for Prices from 31st 1982], "Dziennik Ustaw" 1983, nr 1, poz. 10).

⁶ Therefore, there was introduced a principle that the producer manufacturing his products more cheaply may add to his regulated price 50 per cent of the difference between his costs and costs (regulated price) of the most expensive producer.

Operational programmes (six of them) were introduced in Poland in 1981⁷. Their number was, however, rapidly increased, which hampered accomplishment of priority objectives due to shortages in supply even for covering demand resulting from priority objectives⁸. There were also established institutions of plenipotentiaries for operational programmes. These plenipotentiaries restricted autonomy of economic units as they were equipped with rights to impose a duty on companies to execute specific tasks for operational programmes. In 1983, the number of operational programmes was reduced to 6 and next to 4 in 1984 but, simultaneously, government orders were introduced, which encompassed, industrial supplies produced within the liquidated operational programmes previously.

Two-tier preferences were introduced in 1984. The first tier included guaranteed industrial supplies mainly for operational programmes and government orders⁹. The second tier included only priority in industrial supplies for certain types of production given preference¹⁰. Unfortunately, guaranteed industrial supplies were substantially expanded and in 1984, they encompassed about 40 per cent of total production. The number of assortment groups included within governmental orders rose from 10 in 1983 to 111. Similarly, there was largely expanded the scope investments and export-oriented production benefitting from guaranteed supplies.

Another form of realizing production priorities are central balances of materials. In 1982, they encompassed 88 products and in 1983 as many as 180.

The past experience connected with attempts to execute the economic reform proves that the range of priority objectives is ex-

⁷ Programme of stabilization of the economy and overcoming the crisis.

⁸ Uchwała nr 243... [Decree No. - 243...] introduced 9 programmes and Uchwała nr 278 Rady Ministrów z 30 grudnia 1981 r. w sprawie funkcjonowania gospodarki w okresie stanu wojennego [Decree of Council of Ministers No. 278 from 30th December 1981] ("Monitor Polski" 1982, nr 1, poz. 1), as many as 14. In 1982, their number even increased mainly due to pressure of different industrial branches.

⁹ Guaranteed supplies included also production for national defence purposes and for companies which, as a rule, employ handicapped people and, finally, some central investments, that in this situation began to be implemented within the framework of governmental orders.

¹⁰ It referred to production of fuels, raw materials and materials for export production, production of fertilizers and plant protection agents, as well as housing and hospital construction.

cessively wide. Moreover, these objectives were oftentime formulated too generally, which hampered accurate allocation of factors of production in short supply (from the point of these objectives). In practice, it appeared difficult to carry out supply priorities. Consequently, the number of priority objectives was slightly decreased in 1983.

3.2. Administrative Distribution (Rationing).

It is typical for the seller's market that there operate parallelly several distribution systems such as administrative distribution; sales based on priorities; sales without any restrictions through a network of companies authorized to carry such sales (the so-called compulsory mediation); free market under the state control, and black market.

The necessity of ensuring industrial supplies for priority objectives prompts application of administrative distribution first of all executed by limiting supplies of some industrial products¹¹, and direct administrative allocations¹². There is also applied compulsory mediation carried out by ca. 30 trade companies subordinated to branch ministries¹³.

Distribution forms of the rationing character encompassed about 130 assortment groups of industrial supplies of fundamental

¹¹ In Poland, limits have been imposed on supplies of electrical energy and gas.

¹² In 1982, centralized allocations encompassed 16 groups of materials and, namely: coal, coke, liquid fuels, metallurgical products from iron, products of non-ferrous metallurgy, products from precious metals, electric cables, batteries, plastics, natural and synthetic rubber, tyres, cement, sawn timber, paper, cardboard, and hides. These groups include quite often numerous assortments of different products e.g. metallurgical products - about half a million various items. The allocations concerned also 10 groups of construction machines and transport means, and 97 per cent of the total amount of convertible currencies for imports. In 1983, with insignificant changes in their structure, the scope of allocations did not undergo any major changes (C. J ó z e f i a K, Program polskiej reformy gospodarczej i jego realizacja w latach 1981-1984 [Programme of the Polish Economic Reform and Its Implementation Over the Years 1981-1984], Łódź 1984, p. 17, typescript)

¹³ Although attempts were made to pass supervision over allocation of industrial supplies to the Office of Materials Management, they did not bring any success. (C. J ó z e f i a K, op. cit., p. 18).

importance for the national economy in 1983. Trade in the remaining industrial supplies was carried out through horizontal ties among companies (agreements). In practice, however, the already mentioned production priorities, the system of administrative distribution, market monopolization, and overtaking by a part of industrial associations of dispositions regarding selling and supplies tended to restrict trade in industrial products based on free horizontal relationships among economic units to several per cent of the entire turnover, and only in rare instances to 20-30 per cent of total industrial supplies¹⁴.

From the point of view of restoration of market functions, the situation did not look favourably. It was initially decided that rationing of industrial supplies should be abandoned by the end of 1983. It has been prolonged, however, and that for an indefinite period. And although the Council of Ministers recommended restriction of its scope¹⁵ practical execution of this recommendation can hardly be expected in the present market situation and the practice of 1984.

It may be underlined here that the rationing system, even when its scope is limited, always possesses a propensity to self-generation of such centralized allocations. This is so because it constitutes an essential attribute of power and justification for existence of centralized bureaucratic structures.

¹⁴ Within the framework of the economic reform, there were abolished the former industrial amalgamations established according to the industrial branch principle constituting an intermediate level in command-type management and grouping all companies within a given branch (monopoly) in their vertical hierarchic structures. Liquidation of amalgamations was followed by establishment of industrial associations as voluntary organizations performing advisory-training functions. With passage of time, participation in an association became obligatory *de lege* or *de facto*. They were set up alongside the industrial branch principle and began to perform activities typical for monopolistic structures. Among others, in newly-created associations, there were established offices of industrial supplies and sales, which organized sales and industrial supplies for the entire association, quite often protecting their narrowly conceived interests and utilizing their monopolistic position in the market (W. G r z e g o r c z y k, *Warunki orientacji rynkowej przedsiębiorstw w Polsce* [Conditions of Companies Market Orientation in Poland], Łódź 1984, p. 2, typescript).

¹⁵ The recommendations concerned mainly: restriction of the scope of compulsory mediation; simplification of the system of priorities in industrial supplies by basing it mainly on government orders; and execution of governmental orders through tenders if the producer does not hold a monopolistic position. In fact

3.3. Centralization of Distribution of Industrial Products

Centralization of this turnover does not result only from the already mentioned administrative distribution, compulsory mediation carried out by trade companies subordinated to branch ministries, and the overtaking of industrial procurement functions by associations, as well as priorities in receiving industrial supplies. Its major cause is also the process of concentration, mainly organizational concentration, which has been lasting for many years now. It has resulted in formation of the market structure characterized with a considerable predominance of monopoly elements. To illustrate this fact we shall quote some data.

Average employment size per 1 industrial plant (socialized) was much bigger than in other countries and, moreover, it went up quite significantly from 77 persons in 1960 to 118 persons in 1981, in this employment in state plants rose from 245 to 405 persons respectively. Employment size per 1 company rose from 700 persons in 1971 to 875 persons in 1981. In state companies it was much higher (1.330 persons) than in cooperative companies (270 persons). The coefficient of employment concentration in industry reached 0.67 in 1982. Over the period 1960-1981, the number of socialized industrial companies decreased by 23.6 per cent. In 1981, about 0.6 per cent of socialized industrial companies generated 31.5 per cent of net output, while 10 per cent of them had at their disposal 70 per cent of the total value of fixed assets¹⁶. The monopolistic structure of the market becomes even more distinct if we take into account the branch cross-section.

Demonopolization of the market for industrial products will call not only for system changes aimed at liberalization of market entries and exits (introduction of hard budgetary constraints for companies) but antimonopoly legislation as well. It is equally important to stimulate establishment of small companies, split up multiplant companies, and, finally, differentiate them with regard to their membership to a given ownership sector and their legal form.

such tenders were used to a limited extent in 1984 since they referred to only 21 assortment groups of industrial supplies out of the total number of 111 assortment groups encompassed by governmental orders.

¹⁶ Rocznik statystyczny przemysłu 1982 [Statistical Yearbook of Industry 1982], Warszawa 1982, p. 13, 21, 30-32.

4. Factors of Companies Behaviour in the Market for Industrial Products in Economics of Scarcity

We shall now pass to discussion of basic factors shaping attitudes of companies in relation to supply in conditions of its scarcity.

4.1 Ability of a Company to Perceive Scarcity and Scope of this Scarcity

As a result of permanent shortages in the conscience of company managers there has been developed perception of some kind of "an average state of shortages", which constitutes an important parameter in the company's adjustment process. Knowing in advance about main shortages, it was possible to undertake certain remedial measures connected with adaptation of production technology and its assortment to the present or anticipated shortages in industrial supplies, and make efforts in advance to obtain the necessary industrial products, and especially those which constituted bottlenecks in production.

The existing scope of shortages and knowledge about it were exerting a marked influence on companies' behaviour. Particularly, there could be observed a trend to amass inventories largely surpassing requirements of the current production process. This allowed to reduce the degree of uncertainty on the side of industrial supplies. A common inclination to create excessive inventories could be seen mainly in the case of these means of production, which although indispensable in production did not play any major role in its costs. They included, for example, spare parts for machines, certain components for the production process. A company not encountering any bigger difficulties in the field of financial feeding (soft budgetary constraints) is inclined to increase its inventories without reckoning with costs incurred in this way¹⁷.

¹⁷ Efforts are made, however, to stiffen budgetary constraints of companies. Thus, for example, in 1983, banks reduced their scale of financing inventories as there was accepted a principle that any increment in company's inventories should be covered with its own financial resources. Consequently, the share of companies' own financial resources in financing their inventories rose from 31.6 per cent in 1982 to 33 per cent in 1983 with a general increase in inventories of 17.5 per cent.

Accordingly, anticipations of companies with regard to industrial supplies are of utmost importance both for formulation of short-term task and their participation in execution of tasks of the central plan. Such anticipations are based mainly on managers' experience and their knowledge about an average - "normal" state of shortages in industrial supplies to which a company adjusts its tactical and strategic activities. Difficulties ensuing from these shortages are overcome more easily by companies possessing bigger ability to switch over their production profile than by those which do not possess such ability. This ability of companies to switch over their production is undermined, however, by a considerable degree of concentration of companies, restriction of their autonomy in the sphere of substitution of production factors in production and trade, and finally by vertical branch management structures.

4.2. Scope of Freedom in Choice of a Supplier

The above remarks indicate that the scope of company's freedom in choosing its supplier is restricted. In the domestic market, there is often only one producer (natural monopoly) or only one multiplant company created through organizational concentration.

As it was already indicated, industrial associations both voluntary and compulsory, replacing the former amalgamations, apply monopolistic practices. They find their reflection, among others, in concentration of industrial procurement functions by some associations.

But then, even if there are several suppliers and companies may choose freely their suppliers, the supplier's position is always superior in relation to the buyer.

Centralized distribution system by restricting freedom of choosing the supplier, reduces companies' innovativeness and their adaptability to conditions prevailing in their environment. Moreover, it does not seem possible that such a big scope of rationing may allow for an accurate allocation of very rare industrial products both with regard to priorities defined by the Centre and allocation effectiveness of these products. Both trading activity and innovativeness of companies are weakened. The change in the market structure discussed earlier on represents an indispensable precondition to ensure pluralism in choosing a supplier.

4.3. Possibilities of Obtaining a Privileged (Priority) Position in the Area of Industrial Supplies

A company does its best to be encompassed by priority in obtaining industrial supplies. This is naturally dependent upon several circumstances.

First, a given economic unit must have appropriate technical and organizational conditions to undertake priority production. Too general formulation of production priorities in previous periods caused that many companies were undertaking formally priority production although in reality this production was not essential for accomplishment of objectives given preference by the Centre.

Second, execution of priority objectives should ensure both profitability and, as it partly results from the previous consideration, utilization of production capacities.

Finally, third, the founding organ (appropriate branch ministry, and local state administration organs for certain companies) is entitled to impose production task within priority objectives. This causes subjugation of a company in relation to the founding organ. If production obtaining preference is profitable for a company, it will try to exert its pressure on the founding organ both in formal and informal ways in order to obtain tasks whose execution is fully protected on the side of industrial supplies. On the other hand, if such production is unprofitable for a company, its efforts will be oriented in an opposite direction.

4.4. Bargaining Power in Relation to the Supplier and the Centre

In the described situation it is, to a large extent, a function of a company's size and volume of its demand for industrial supplies, and its position (or more precisely its management position) in relation to local and central economic and political authorities. A company, often in an informal way, tries to increase its bargaining power. On the side of companies (buyers), there exists a tendency to concentration, concluding various branch agreements, approval of provision of industrial supplies for the entire branch by industrial associations, and acceptance of big consignments delivered at one time. The supplier may simplify his deliveries, lower their costs and limit his services

connected with these deliveries (postponement effect) as he holds a superior position towards the buyer.

Certain industries e.g. heavy and engineering industries enjoy a privileged position. There has been even developed some stereotype, which causes that the bargaining power of some industrial branches is bigger than that possessed by other companies. Moreover, they find support of local authorities more easily.

4.5. Possibility of Motivating the Supplier and the Administrative Distribution System through Informal Ties

Non-price criteria of allocation of a considerable part of industrial products create favourable conditions for development of informal ties between the supplier and the buyer. Different pressure groups are created. Branch lobby etc. To some extent, there are developed: specific forms of corruption; barter trade among companies; doing different favours; winning sympathy of employees in the supplier's selling department and in the administrative distribution system etc.

In this situation, employees in the buying company's procurement department assume great importance. Their cleverness and skill of establishing informal contacts with supply employees determine, to a large extent, a company's economic effects. They strive to secure products necessary not only for their own company but also for other companies as it strengthens their bargaining power.

There can be quoted here several basic "arguments" on the side of the buyer, which may induce the supplier to sell a product and increase its volume.

1. Uselessness (costs) of a purchase which the buyer is inclined to accept. It may result from shifting the burden of services, which customarily or on a basis of agreements concluded previously should be performed by the supplier, to the buyer.

2. Inclination to accept tied sales. It happens that the supplier sometimes makes the sale of given industrial products subject to purchasing of others, which he has in excess and for which he cannot find buyers. This is naturally an informal activity.

3. Possibility of supplying the supplier or other buyers

competing to secure their supplies with products being attractive to them by the buyer (kind of barter deals). Other competing buyers, having obtained such products from our buyer, may be inclined to give up the purchase in favour of the described buyer.

4. Personal connections of informal character sometimes supported by corruption. Ways of motivating the supplier by the buyer have not only their economic dimension but social and moral dimensions as well. They cause undoubtedly disintegration of goals of market channel participants and especially macro- and microeconomic goals.

4.6. System of Company's Ties Within the Network of Which it is Situated, and its Ability to Utilize These Ties to Intensify its Supply

The market in the centrally planned economy is characterized with considerable structuralization. A company and plants belonging to it are often located within a network with quite extensive ties. These ties often refer to non-economic and informal connections within a developed hierarchic structure. Of great importance are also connections within branch groups of companies. Finally, of great importance are their ties with local political and economic authorities. If a company has developed ties within such a network and is able to utilize them, it can significantly mitigate its difficulties in the sphere of industrial supplies.

4.7. Ability of a Company to Provide Distorted Information About its Production Capacities and Inventories of Industrial Products

Rationing of industrial products may be looked upon from the side of allocation of shortages. A company by generating information, which does not correspond to its real situation, may cause, to some extent, that it is bypassed in "allocation" of such shortages. I am omitting here the moral aspect of such distorted information as well as its consequences finding their reflection in difficulties encountered by a company in performing its economic calculus.

Jerzy Dietl

ZACHOWANIE SIĘ NABYWCÓW ŚRODKÓW DO PRODUKCJI
W GOSPODARCE CENTRALNIE PLANOWANEJ NA PRZYKŁADZIE POLSKI

W artykule zostały omówione czynniki wpływające na zachowanie się nabywców (przedsiębiorstwa kupującego) na rynku produkcyjnym w ekonomice niedoborów. Rozważania oparto w części na doświadczeniach wynikających z ostatnich prób wprowadzenia reformy systemu zarządzania i planowania gospodarki w Polsce.

Większość uogólnień jednak odnieść można do sytuacji charakterystycznej dla rynku sprzedawcy. Opis zcentralizowanego systemu dystrybucji środków do produkcji oraz prób jego zreformowania stanowią wprowadzenie dla: omówienia form procesu dostosowawczego przedsiębiorstwa do niedoborów podaży, decyzji zakupu i poszukiwania potrzebnych produktów zaopatrzenia, a wreszcie czynników wpływających na pozycję kupującego względem sprzedającego i jego zachowanie mające na celu wzmożenie tej pozycji.

Analiza doprowadza do wniosku, że sytuacja rynku sprzedawcy i wynikające z niej zachowania partnerów wymiany pociągają za sobą negatywne konsekwencje ekonomiczne, społeczne i etyczne.