

Prosumption as Basic Market Force in Modern Economy

Subjects: [Business](#), [Finance](#)

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The term “prosumption” is a portmanteau of production and consumption. It refers to a process where a consumer takes over some of the activities previously performed by a producer, usually by directly involving themselves in the design and production of various goods or services. Prosumption is the basic market force in the modern economy.

energy transition

super wicked problem

prosumer capitalism

energy policy

climate change

renewable energy

1. Definition of Prosumption

The term “prosumption” is a portmanteau of production and consumption. It refers to a process where a consumer takes over some of the activities previously performed by a producer, usually by directly involving themselves in the design and production of various goods or services. This phenomenon was identified as early as in 1972 by Marshall McLuhan and Barrington Nevitt, who noted that the development of electric-information technology had made it possible to combine the roles of consumers and producers ^[1] (p. 4). As such, the prosumer is a new form of economic entity, who not only consumes but also designs, produces, and markets a given good or service. In other words, a prosumer leverages its innovation and creativity potential to produce goods/services.

The subject of prosumption was explored further in 1980 by Alvin Toffler, who posited that the economy is divided into two sectors ^[2] (pp. 282–305). Sector A comprises unpaid work performed by people to fulfill the needs of themselves, their families, or even their communities, whereas Sector B relates to the production of goods or services for sale or exchange. This classification shows that the officially acknowledged and valued economy—sector B—is complemented by another, invisible economy—sector A. Furthermore, the production of goods and services for private use lays the groundwork for the economic activity carried out by society, and thus, sector B could not exist without sector A. According to Toffler, prosumption at a time of information technology revolution—designated “the third wave” by Toffler himself—is, at its core, the shift of production from sector B to sector A by the people. This is directly coupled with a reduced role of the market in the economy—de-marketization. Prosumption is mainly driven by its benefits to the prosumers, stemming from the law of relative inefficiency. This law holds that as the production of goods becomes automated, the per-unit cost of these goods falls, thus increasing the relative cost of handcrafts and non-automated services. This makes production for one’s own, private use a more cost-efficient proposition, thus spurring the growth of sector A. Among the many other factors that drive people to prosume are: rising inflation, the dissolution of second-wave bureaucratic service-provision systems characteristic

of industrial civilization, the appearance of new, third-wave information technologies, and the rise in structural unemployment.

Prosumption leads to the externalization of the labor cost, meaning that people who produce goods/services for themselves take up part of the labor that had been originally provided by producers. This labor is mostly unpaid, and thus increases profits for some businesses and precipitates economic exploitation of prosumers.

2. Prosumption as the Basic Business Model of Wikinomics

Wikinomics is a field of research that discusses the impact of information technology on modern economic processes. As part of it, new principles for conducting business in the modern world and new models of global cooperation were identified. Digital technology can now be considered a top technique in the sense of Hicks, i.e., one that provides the highest rate of return and enables the introduction of the economy on a balanced growth path with the maximum rate of growth [3]. This explains the high, unprecedented economic growth and development that has occurred in recent decades in many countries of the world.

There are four principles of wikinomics: openness, peering, sharing, and acting globally. These principles are the most important factors of economic growth and development in the digital economy. Openness involves companies sharing part of their resources with the business environment in order to obtain external sources of creativity and innovation. Partnership is associated with the spontaneous transformation of some economic organizations from hierarchical to horizontal. Sharing means a less restrictive policy of companies regarding intellectual property, which applies, in particular, to patents and copyright. Information technology has removed existing barriers between business entities and enabled them to operate on a global scale [4][5].

An important achievement of wikinomics is to identify seven models of mass collaboration that have radically changed traditional business strategies. These include [4][5]:

- Peer pioneers—volunteers creating innovative ventures outside the market sector;
- Ideagoras—modern search systems for business partners and original scientific research experts;
- Prosumers—people who are both producers and consumers;
- New Alexandrians—people's cooperation to multiply, accumulate, systematize, and share all knowledge of humanity;
- Platforms for participation—websites with relevant products and information technology that encourage large communities of partners to collaborate in order to create new products;
- Global plant floor—production of goods and services as part of global cooperation;

- Wiki workplace—meritocracy abolishing the hierarchy in the enterprise and connecting internal teams with external networks.

The principles and business models of wikinomics, which developed as a result of mass and spontaneous collaboration of people, led to the rapid growth and economic development of the entire global economy. However, one should not forget that this progress also has a dark side. This is due to the fact that the well-known phenomenon in classical economics, namely, the exploitation of people in the processes of production and distribution of goods and services, has been forgotten.

3. Types of Prosumption

3.1. Alvin Toffler's Three Waves of Prosumption

Prosumption is a complex and multi-dimensional topic, and has thus been relatively poorly explored in economics. The first classification of prosumption was put forward by Toffler himself. His taxonomy is based on characteristics of the three economic waves of humanity's economic history, which he analyzed. Using this criterion, he distinguished three forms of prosumption ^[2]:

- First-wave prosumption of agricultural societies, where goods and services were mostly produced for private use, with only a small proportion exchanged between people. Obviously, this impeded the growth of goods and service markets. In this period, sector A was relatively large, whereas sector B was far less prominent;
- Second-wave prosumption was characteristic of the industrial society largely geared towards producing for trade, with minimal production for self-use. This was the reverse of the first-wave trend: consumption functions and production functions became largely separated. Sector B grew to gigantic proportions, which meant that Sector A became imperceptible to many economists. The progressing industrialization gave rise to an international trade network, a trend which Toffler named "the marketization of the world";
- Third-wave prosumption appeared hand in hand with the informational technology revolution and restored the balance between Sector A and Sector B through the emergence of a new lifestyle, one based on production for exchange and production for self-use in roughly equal measures. Toffler argued that the market could no longer grow by absorbing new countries—that, on the contrary, it would start shrinking. This would bring about the aforementioned de-marketization—a reverse of the trend present during the second wave. Nevertheless, qualitative changes and development will continue, and the (necessarily reduced) market will give rise to a trans-market civilization which will deal with solving entirely new problems. The fourth wave is, therefore, to be expected.

By making this distinction, Toffler suggests that the renewed significance of sector A—brought on by the information technology revolution—will not only change the very underpinnings of our economic system, but also our belief system. A new, more holistic conception of an economy would be needed, one which would describe the

phenomena of sector A and how they relate to sector B. The entire economic terminology would have to be redefined, as explaining the relationships between unmeasured production/productivity in sector A and measured production/productivity in sector B would require brand new models, metrics, and criteria [\[6\]](#). Traditional measures of production, such as the gross national product, would slowly become obsolete if they fail to incorporate data on sector A economic activity. A fresh perspective on the problem of prices and costs would also have to be adopted, since the effectiveness of prosumption in sector A would affect the costs of private and public enterprises in sector B. Efficiency is currently determined by simply comparing different methods of producing a given good or service and is not compared across sectors, i.e., production in sector B is not measured against the corresponding efficiency in sector A. The rising importance of prosumption was also destined to cause inevitable changes in the belief system of a trans-market civilization. The development of the markets during the second wave gave rise to vulgar materialism and the preconception of economic stimuli as the primary force shaping people's lives, as expressed in marriage contracts and various social contracts. However, the market is more than just the economic structure—the psychosocial structure is a part of it as well.

3.2. The Six Archetypes of Prosumers

Prosumption is a multi-faceted phenomenon and a focus of decades of research, with a wealth of studies detailing its taxonomy. Even so, the subject has yet to be fully explored. The most recent classifications distinguish between six archetypes of prosumers [\[7\]](#):

1. DIY (do it yourself) prosumers—individuals who create goods and services exclusively for private use, without paying an external entity for them;
2. Self-service prosumers—prosumers who can perform partial self-service using technological tools, for example by repairing a bike or a computer by themselves, and thus co-creating value;
3. Customizing prosumers—prosumers who personalize products to better serve their own needs, especially with regard to entertainment, travel, or clothing;
4. Collaborative prosumers—individuals who provide for their own needs or the needs of others and thus create value without profit for any intermediary, e.g., by developing open-source software;
5. Monetized prosumers—prosumers who create value accessible to others via a commercial entity without being formally rewarded for their activity, e.g., through their activity on social media platforms;
6. Economic prosumers—individuals who receive formal incentives from commercial entities for the value they create for others, as best exemplified by prosumers who produce electricity for their own use and for sale.

3.3. Cooperation of Prosumers with Other Market Participants

Classifications of prosumption are increasingly being adapted to the changing markets and economies. In many cases, prosumers may well be categorized according to how they cooperate with other market entities [\[8\]\[9\]](#). Using this criterion, three types of prosumption can be identified [\[10\]](#) (pp. 51–57):

1. Individual prosumption, which is when a given prosumer does not engage in any cooperation whatsoever with other market entities, being completely independent from them and self-sufficient in their own activity;
2. Intra-prosumption refers to a collective form of activity where the actor is part of an organized group of prosumers and engages in participatory design or co-production (exclusively within the given group of prosumers);
3. Inter-prosumption occurs when a group of prosumers and a producer work together to develop new products/services or improve existing ones, for example, via social media. Inter-prosumption is further divided into its simple and complex varieties.
 - Simple inter-prosumption may take forms such as: lead users ^[11], the individualization (de-massification) of products and services ^[2] (pp. 271–274), production of a commodity by a producer, using information and starting material supplied by the prosumer, self-assembly ^[2] (pp. 294–295), and sharing a product with a business to perform a service (bike-sharing, car-sharing);
 - In contrast, complex inter-prosumption occurs both within a prosumer group and a producer group, with the two collectives also working together. The field of renewable energy production offers an example of public prosumers in the form of autonomous energy regions—demarcated areas of rural and agricultural land ^{[12][13][14][15]}.

Notably, these two above taxonomies are largely in line with Toffler's views of the subject. Essentially, all these types of prosumption can be associated with one of the three waves of civilization development. It is, therefore, clear that the different types of prosumption can overlap, further speaking to the challenges faced by modern researchers attempting to define prosumption precisely. Producers of electricity who self-consume a portion of it and feed the excess to the power grid could be classified either as monetized prosumers or as entities engaging in intra-prosumption/inter-prosumption.

4. The Exemplification: The Interdependencies between Sector A and Sector B in the Polish Economy

Polish academia has seen a number of studies on prosumption in recent years, but virtually all of them focus on the market sector. Most of the analyses agree that society is showing a strong propensity toward prosumption, particularly in the banking services ^[16], food ^[17], and energy sectors ^[18]. Rather than a phenomenon exclusive to the youth (Generation C)—i.e., people born after 1990, reaching maturity after 2000, and entering the labor market after graduation—prosumption has been shown to also extend to the elderly, who are interested in pursuing energy prosumption ^{[19][20]}. It has also been demonstrated that prosumption is an important element of innovation marketing ^[21]. Of the literature analyzed for these contents, only one study indicated low societal interest in commercial prosumption ^[22].

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