

## POSSIBLE EFFECTS OF INDUSTRY 4.0 ON THE ENTREPRENEURSHIP<sup>1</sup>

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### ABSTRACT

Industrial revolutions have always transformed the societies they have influenced, and have had important consequences for individuals and businesses. Organizational change and development, which started with the first industrial revolution, were exposed to industrial developments and revolutionaries as diverse as everyday. The concept of "Industry 4.0", which has been introduced and talked about in recent years, is not yet known as to what kind of changes will bring about in terms of individuals and organizations in the 21st century. Although the concept is not very common today, it has a great potential to improve the individual and organizational experience. Contributing to individual development is largely within its organizational sense; production process models, manufacturing and supply chains, employees, relationships with customers, and so on. Basically, it is possible to think of Industry 4.0 as a combination of innovations brought about by the technological advancement that has been experienced today, information and communication technologies, cyber systems, network communications, cloud technology system, simulation, modeling and human-computer interaction, and so on. In this study, the possible effects of the concept of Entrepreneurship 4.0 on the concept of entrepreneurship, the results and the relation with entrepreneurship will be investigated.

**Keywords:** Entrepreneurship, industry, industrial revolution, industry 4.0, entrepreneurship 4.0.

### 1. INTRODUCTION

The concept of industry 4.0 or the fourth industrial revolution is a phenomenon that can directly change industrial policies and strategies by structure. The origin of this phenomenon is comes from Germany. In Germany, for example, it is aimed at transforming the industry and innovation policies that are drafted through a platform created by private, public and university representatives. The report, prepared for the development of future forecasting and precautionary measures, provides a framework to advise both the market and the managers (Vardar, 2016: 13).

Turkey is a high competitive country which is willing to take part in developed economies. In Turkey, industry 4.0 is followed by global developments. It is important to be one of the pioneering and practicing countries of Industry 4.0. The elements under our competitive power, such as low labor cost and logistical advantage, should be expected to be exposed to significant pressure, especially when the competitive power indicators change. For this reason, it is aimed to establish and increase the sustainability of our competitiveness advantages with the Industry 4.0 approach, but beyond that, to create a Turkish industry that has need a high added value and a greater share of the world production

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value chain. Turkey's aim is to be able to reach to the level of developed countries. For this, the industry should consider the contributions of 4.0 (TÜSİAD, 2016: 13).

Another important point in terms of our country is the initiation of adaptation processes in the fastest way by accepting the new industrial transformation as the living, working people and organizations in our country. It is necessary to take an active role in this process when the scientific foundations and standards of this industrial transformation are determined. Today, it is a fact that we have not hosted any company or organization that is pioneering the concept of the Industry 4.0 concept in research or development. In industrial and primitive societies, use becomes widespread when benefits arise. As economic benefits become apparent, their use will become widespread. As the reflections of Industry 4.0 increase, the added value of people in the production process will continue to decrease. It would be pointless to expect the activities in the economic area to stay away from this. Where the benefit is highest, the orientation will be there. For this reason, our country should be in the leading societies catching the revolution from the beginning. Thus, our country can take part in benefit leaders (Dolanbay, 2017: 47).

The goal of Industry 4.0 is to exchange information between machines, computers and other computer systems through the internet during production, to coordinate themselves optimally and optimize production. The first goal for this period is to enable computers to become perceptible, and the second goal is to develop intelligent products. In order to realize these goals, firstly sufficient knowledge and skill is needed. However, this period, which means the reduction of labor demand, not only threatens employees, but also raises the risk that those who can not compete with the can get out of the way (Ötleş ve Özyurt, 2016: 94). Industry 4.0 seems to be deeply affecting the employment market as well. While increasing productivity and reducing costs, it is expected that many current professions will disappear, but new professions will also be born. The increase in population and the advantages of the young population may be invalidated by the inclusion of the aging population in the economy because the qualified labor force will increase in importance. The use of modern devices, smart technologies and information systems and digitalization in connection with new business models and processes will require much higher quality training for tomorrow's employees. From an economic standpoint, societies and countries; sectors, and economies with new technology platforms. For example, technologies such as biotechnology, nanotechnology and information communication technology are seen as the most critical technology platforms for this industrial transformation. Because these sectors have the potential to accelerate the transformation of the industry as quickly as possible, as well as sectors that have the fastest spread and most widespread use in all sectors (Hisarcıkıoğlu, 2016: 6).

It is an important element with a high potential for job power to carry out complex production systems that emerge in the wake of the fourth industrial revolution. Here again, a two-dimensional employment policy emerges: the promotion of high-quality employment and the creation of new jobs by preventing the loss of employment, which may arise in unskilled labor force, through social policies. According to the new business models defined in the field of Industry 4.0, it is necessary to determine the qualified employment capacity needed and take measures for unskilled labor force. For the establishment of the required professional standards and the management of complex systems during the fourth industrial revolution preparatory phase; reorganization of working conditions and continuous training for smart factory employees to be adhered to new production conditions (Vardar, 2016: 12-13). The rapid changes and developments experienced in science and technology in the 2000s, which are called information society or communication society; it has also increased the economic value of entrepreneurship and entrepreneurship as well as its importance in society. As a reflection of this, entrepreneurship based on individual and individual ability has come to the forefront and the individual's intellectual productivity ability has become important (Mungan, 2013: 15).

It is of utmost importance that entrepreneurs closely follow the changing and transforming environment that the new industrial revolution brings or will bring and closely follow each step of the process. Large industrial firms in our country will be hesitant to move to Industry 4.0 when they find markets that can sell mass production, but the situation is different in terms of small and medium sized enterprises. SMEs will have difficulty in moving to Industry 4.0 or adapting to the environment they are bringing to the industrial transformation as they will not be able to find production in large quantities. This difficulty can be attributed to SMEs; large firms can produce the desired productivity, quality, precision,

durability, and the downsizing of the large company's products. In this case, large firms are obliged to show their markets and purchase guarantees to move their SME suppliers to Industry 4.0. In order for our country to be a pioneer in this industrial revolution and able to obtain benefit leadership, Industry 4.0 builds up its structuring with foreign products and establishes the security of this network. The country administration and the government also compulsive practices with incentives, incentives and regulations at certain points will accelerate the process (Faller ve Feldmüller, 2015: 88; Akurgal, 2016; Sommer, 2015: 1513-1514; Nowotarski ve Paslawski, 2017: 1).

Production systems have become widespread with Industry 4.0; faster, more flexible and more productive processes, and that products with higher quality can be produced with lower costs. This is of great importance for entrepreneurs because a faster and more efficient production system reduces the turnover time of the entrepreneur by reducing the turnover time of the product. In addition, thanks to the necessary structural changes, productivity will increase in the production while the growth of the industry will gain momentum and the labor force profiles will change and entrepreneurs will have to update their recruitment practices closely by following the changing labor force profiles in the selection of potential personnel (TÜSİAD, 2016: 19-20).

## 2. LITERATURE REVIEW

In the environment which organizations continued their lives; there are activities or elements that can reflect movement, complexity and chaos. The exchange of these activities and elements in the environment shows a rapidly changing nature and creates an environment where there are ambiguities and threats on behalf of organizations in times of intense mutual relations. These environmental elements and environment of change; the complexity of the needs and expectations of the individual, the influence of belief and value systems of the individual can cause new opportunities and threats to emerge at any moment. Organizations, which are indispensable elements of social life, can not be expected to continue their lives without being affected by these changes, since they perform their activities in interaction with environmental elements (Naktiyok ve Kök, 2006: 77-78).

The necessity of having the entrepreneur idea needed to respond to environmental changes has given a different dimension to the concept of entrepreneurship. The concept of entrepreneurship today is that of existing organizations; They also include the activities they need to do to grow, develop, win or become a pioneer in their field. For this reason, the boundaries of the concept of entrepreneurship should not be limited to starting production or establishing a new business by merely combining production factors. The concept of entrepreneurship includes all the activities and changes that take place within the organization and the most important factor in the functioning of this concept is the "entrepreneur" factor (Naktiyok ve Kök, 2006: 77-78). The concept of entrepreneurship is believed to have been rooted in the term "entrepreneur", which is used by French Richard Cantillon, which means entrepreneur. In 1755, Cantillon used this term in order to obtain profits within economic parameters and to define uncertainty (Onay ve Çavuşoğlu, 2010: 48).

In the pre-industrial era, the concept of entrepreneurship was known as the attempt of individuals to do business with their own efforts and property. Adam Smith and early British classical economists were playing an insignificant role in entrepreneurship in the field of economics and entrepreneurs; Not as "leaders or rulers" but as an individual producing capital. But with the acceleration of industrialization, the concept of entrepreneurship has acquired many different characteristics. Along with these developments, entrepreneurship has begun to be seen as a factor of production in general economics and it has become a subject of more detailed researches so that even the sub-concepts within the concept have emerged (Taş, 2016: 28). For instance, entrepreneurship tendency, which is included in the concept of entrepreneurship, expresses the desire and determination of individuals to make their own business, which arises from the interaction of individual factors and environmental factors. Another important concept for entrepreneurship, entrepreneurial behavior, is defined as practices and behaviors that have taken place during entrepreneurial activities (Mungan, 2013: 14-15).

By the 1900s, an Austrian economist named Joseph Schumpeter had laid the foundations for the economic theory of entrepreneurship at the beginning of the century. This view of Schumpeter was originally adopted as part of a new economic model, but was later rejected. The economists who worked on this field and who came after Schumpeter were also unsuccessful. Besides, this theory is seen as one

of the main sources of entrepreneurship studies today. Schumpeter's exit point is that the economy is a system, but the changes are internal rather than external. The most important role in managing and implementing these changes belongs to the entrepreneur (Taş, 2016: 29).

Entrepreneurship is a life style that is valued. The activities or individual values of entrepreneurs include business and leisure insights, leadership preferences, commitment, order and aesthetics. Some entrepreneurs use their positions in the organization to develop values that are personally important. Some try to improve their professional values and others social values. The entrepreneur has a desire to be strong, a person with a strong desire for success, a person who cares about his / her freedom, can take risks if necessary, has a high control instinct, able to use initiative and determined, (Mungan, 2013: 4-5). According to another approach, the characteristics that should be found in an entrepreneur in an organizational sense; to be able to take risks, to be successful, to be able to work with others, to be able to manage with personnel and deficiencies, to be a researcher, to work under hard and hard conditions and to be patient (Sönmez ve Toksoy, 2014: 44).

In terms of Turkey, which is available before the financial liberalization movement off the economic structure and current import substitution application in the economy, keeping it away from the organizational world of global competition, of being dominant in the domestic market easily trying to protect their profits, it has created an economic structure afraid to take risks because of the political and economic uncertainties . But nowadays, it has become almost impossible to get away from the competition in the ever-shrinking world and the economic system that the borders have left. This situation of change and development environment is also true for Turkey's economy, it led to the understanding of the importance of entrepreneurship concept in recent years, and both the government and with the support of private sector organizations, has started to conduct new studies on entrepreneurship (Sönmez and Toksoy, 2014: 45).

The activities within the macroeconomic order are generally subject to a dual separation in the form of a public industry and a private industry. But the most important issue to answer within this distinction is the question of what the sector or industry concepts are. The concept of sector can be explained in its basic sense as a competitive environment in which subordinate units and firms have the same characteristics of an economic order. Within a sector, businesses that are similar or different from each other need to be distinguished from each other. The industry, which is produced by firms that produce products or services and compete with each other in the lower arms of the sectors, is called the industry (Karabağ, 2008: 7-8).

When we look back over the past centuries, industrial transformation, especially after the Industrial Revolution, has affected the relationship between human beings both nature and other people uniquely. This process of change and interaction has also been reflected in industrial activities, and certain factors have led to a number of evolutions within the industrial scene that are diverging within itself (Aksoy, 2017: 34).

The first industrial revolution, which began in the mid-18th century under the British leadership, can be considered as a global growth movement that has gradually created its effects in almost all parts of the world as well as in Europe (Yılmaz, 2008: 1). The first Industrial Revolution, also called the Industry 1.0 Revolution. From an understanding of production based on human and animal power, an understanding that machine and steam power is dominant has been reached. In England in the 18th century, it first appeared in the weaving sector, then spread rapidly to other areas. With the transition to production based on steam and machine power, production quantities have increased and production systems have changed (Küçükkalay, 1997: 52).

The first industrial revolution was also called the steam age. It is with this revolution that factories use steam energy instead of hydraulic energy. In the first phase of the industrial revolution, Western Europe was the center of almost all developments. Along with this period, humanity has been heading towards a developing machine day by day, and the total population has started to increase. These two interconnected developments have for the first time been widespread in western societies in the mid-eighteenth century (Yıldız, 2013: 4-6).

The most prominent and most important feature of the industrial revolution is that it leads to many inventions. These inventions have reduced the effort of mankind for production day by day. The

industrial revolution provided the gathering of capital and hand labor together (Yıldız, 2013: 3-4). The world, which has changed a great deal with the industrial revolution, has been subjected to a rapid development process in terms of economy. With the industry, which is one of the main branches of the economy, the raw materials that exist especially in the nature have started to be evaluated and shaped, industrial investments and activities have increased and with the developments emerged, the concept of distance has been lifted from the middle of time and prepared the ground for globalization. Depending on this situation, there has been a rapid industrial spread in the world (Doğan, 2013: 211). However, while some economies benefit from all the blessings they bring with them by adapting to the requirements of this stream, others have not even made any significant progress to the mid-20th century (Yılmaz, 2008: 1).

The United States began its transformation into an industrial state in the 1900s, along with the developments that have taken place. This country gained its independence in 1781 and accelerated the industrialization movements after the civil war in 1860, and today it has become an industry giant. This living American industrial revolution is also called the "second industrial revolution" (Yılmaz, 2008: i).

The first industrial revolution began in England and spread to the world. With the impact of industrialization, it is not possible to talk about the United States while England is making significant economic progress. During this period, America is a colony that migrated from various parts of Europe. After declaring its independence in 1781, economic developments accelerated. Although not having definite and clear lines, there is a common opinion and consensus in the literature about the fact that the original jumper lived after 1870 (Yılmaz, 2008: i; Sanders et al., 2016: 812-813). The second stage of the industrial revolution and the old world power of Western Europe have also begun to disappear; Countries like America, Russia and Japan have emerged as competitors. Especially the United States has opened up its rich resources and has become the pioneer of the movement with its large initiatives being welcomed (Tanili, 1979: 88-89).

In the second industrial revolution, which was described as the second stage of the industrial revolution, coal mining played an important role in terms of energy resources, but in this period different energy sources were also found. For example, alternative sources such as electricity and oil have gained more importance each day and are beginning to come to the forefront. (Yıldız, 2013: 6). At the forefront of the second industrial revolution is the use of "oil" sources and oil-based internal combustion engines, which are at the top of alternative sources. In the same years, Henry Ford's use of the mass production system in the automotive industry and the industrialization of factories became faster and more industrialized (Eldem, 2017: 10-11).

By the 1970s, the Third Industrial Revolution had begun with the emergence of programmable machines that left digital and mechanical technology in the manufacturing process. Thanks to electronic and information processing technologies, automation in production processes has become possible. With the widespread use of semiautomatic and fully automatic robots, massive production has begun to be no longer necessary (Hisarcıklioğlu, 2016: 6; Rojko, 2017: 77). In the formation of this progress and development environment, there is a production automation factor provided after the Second World War with the development of electronic, information and communication technologies (Eldem, 2017: 11, Aksoy, 2017: 37, Alçın, 2016: 47).

The Fourth Industrial Revolution is a development that was first introduced in the Hannover Fair in 2011 and later announced by the German Government as an industrial modernization project (Vardar, 2016: 10; Roblek et al., 2016: 1). The Fourth Industrial Revolution is the news that our world is heading for a change. On the basis of the concept, the widespread use of the internet is integrated with flexible production systems and the technology can be integrated into production processes (Hisarcıklioğlu, 2016: 6, Schwab, 2016: 18-20). Whether living or non-living, every object will be connected to the internet and become communicative with each other, intelligent production will pass through with the communication between the machines; economic and social transformations to be experienced with these developments started to be discussed and investigated after the concept was introduced (Eldem, 2017: 10; Davies, 2015: 2; Almada-Lobo, 2015: 16).

Industry 4.0; is a new phenomenon emerging with the influence and transformation of production processes of information, communication, internet, data collection, automation, artificial intelligence

and robotic technologies (Pereira ve Romero, 2017: 1207). This transformation is expected to be completed in the coming years. With this revolution, which is called Industry 4.0, the first supplier will adopt a fully integrated structure by using the most advanced digital technologies in the entire production and value chain, up to the end user. In addition to these technologies, all the hardware included in the production process is defined by its own internet address or code in the system architecture; a "Smart Production" infrastructure will be created in which all data generated every second in the whole process are stored, user defined formulas and algorithms are processed, and information is made meaningful for the managers, and autonomous production processes are focussed on rule-based scenarios. In other words, an ideal integration of all hardware and software within company assets is targeted (Mrugalska ve Wyrwicka, 2017: 467-468; Eldem, 2017: 11; Wagner vd., 2017: 125).

In the Fourth Industrial Revolution; concepts such as personalization, visualization, hybridization and excellence are at the forefront. With this revolution, it is expressed that the industry is supported by computers and equipped with high technology. At this point, the machines will be able to understand what is happening in their environment and connect with the internet. The technological basis of this development and change is based on cyber-physical systems and internet network. Using standard internet based protocols, it is planned to analyze the data for purposes of forecasting errors, defining parameters and adapting to changing conditions. With the widespread use of existing systems; it will be possible to produce goods with higher quality at a lower cost by providing faster, more flexible and more efficient processes. With the structural changes, it is expected that productivity in production will increase and the growth of industry will accelerate and qualified workforce will be formed (Ötleş, 2016: 91; Chromjakova vd., 2017: 1-2).

### **3. PURPOSE OF THE RESEARCH**

Basically, it is possible to think of Industry 4.0 as a combination of innovations brought about by the technological advancement that has been experienced today, information and communication technologies, cyber systems, network communications, cloud technology system, simulation, modeling and human-computer interaction, and so on. In this study, the possible effects of the concept of Entrepreneurship 4.0 on the concept of entrepreneurship, the results and the relation with entrepreneurship will be tried to be investigated and a SWOT Analysis approach has been made.

It is not seems possible to make any comparisons due to the conclusions made and the findings obtained as a result of the study being a new field and due to the lack of data. This research includes recommendations, suggestions, warnings, and determinations to ensure that developments can be achieved and industrialized before the transformation of the 4.0 revolution is completed.

### **4. METHOD**

In this research descriptive research technique is used as qualitative research methods. Descriptive research is carried out qualitatively because they do not start with the hypothesis of research, do not seek causality between phenomena, do not seek explanatory and predictive purposes, and do not control environmental conditions. In the descriptive research technique, if it is the only purpose of describing the research, the investigator describes in detail and thoroughly observes the phenomenon that the researcher is investigating, examining and describing the matter without developing any theoretical problems (Lin, 1976: 142-143). And SWOT analysis, is a technique which used to identify the strengths and weaknesses of the organization being examined and to identify opportunities and threats that originate from the outside world. It is one of the techniques that allows to conduct situation analysis in scientific sense (Aktan, 2005; Çoban ve Karakaya, 2010: 347).

The selection of the selected and used tools for the research has been influenced by the lack of studies on the subject, the lack of data on behalf of the application due to the incomplete conversion of the industry 4.0 revolution, and the fact that the transformation of the revolution has not yet been completed at all. The lack of practicality and the lack of quantitative data made it almost necessary to conduct a qualitative study, leading us to this technique. We do not have a chance to make a quantitative application with the country we live in. Perhaps later, with the material, monetary and spiritual support, this field can be extended to the leading countries in order to expand the scope of the research.

## 5. FINDINGS AND CONCLUSION

Industrial revolutions have always transformed the societies they have influenced, and have had important consequences for individuals and businesses. Organizational change and development, which started with the industrial revolution, the first industrial revolution, were exposed to industrial developments and revolutionaries as diverse as everyday. The concept of "Industry 4.0", which has been introduced and talked about in recent years, is not yet known as to what kind of changes will bring about in terms of individuals and organizations in the 21st century. Although the concept is not very common today, it has a great potential to improve the individual and organizational experience. Contributing to individual development is largely within its organizational sense; production process models, manufacturing and supply chains, employees, relationships with customers, and so on. Basically, it is possible to think of Industry 4.0 as a combination of innovations brought about by the technological advancement that has been experienced today, information and communication technologies, cyber systems, network communications, cloud technology system, simulation, modeling and human-computer interaction, and so on.

The concept of entrepreneurship is part of the global economic order, which is in constant change and development. For this reason, it is in constant change and development. The practices of individuals and organizations, developments in production systems, technological advances differ from day to day, and entrepreneurs are pushing to update their practices by observing these changes.

The differences that each industrial revolution brings and takes from entrepreneurs differs by the conditions of each industrial revolution. For this reason, entrepreneurs should need to update and regulate their applications according to industrial conditions, in the name of organizational success and continuity. Today, the "Industry 4.0 Revolution" initiated by Germany is planning to integrate many concepts like organizational intelligence, internet of objects, artificial neural networks, cloud technology and so on into the organizational world and to be included in production processes. The aim of the fourth industrial revolution is a production model in which all living or non-living objects are in communication with one another and connected to each other by internet or local networks.

In world's famous auto show which held in Geneva last year, the talking car concepts are was introduced and showed that Industry 4.0 is no longer just spoken, but a system already in it. As in the first three industrial revolutions, the key question is "how do I catch this wave?" rather than the question of "what is going on?" which will be decisive in this period (Alçın, 2016: 47). In Industry 4.0 concept, we should prepare our children for tomorrow's production environment, we could provide the competitive capabilities of our companies and we should attract investors to Turkey. With the rise of the entrepreneurial economy, the growth of production capacity through Industry 4.0 and the new income distribution model that will emerge under the leadership of all of them, we need to work very well to see where we will be in this growth process as a country (Dolanbay, 2017: 47).

In order to evaluate the technological development and accumulation relation of the Industry 4.0 period, it is first necessary to ask some questions. According to Ercan, the primary question to be asked in the digitalizing production process with Industry 4.0 is "how can we accelerate the recycling of the capital". The capital cycle is accelerating with Industry 4.0, which enables communication between living and inanimate objects to be unilateral and draws into the production process of the consumer, creating a new relationship between producer and consumer. With this shortening of the turn, it will be possible to realize a new "speed" in Industry 4.0, which will reduce the cycle time of the capital, which represents the period during which the capital remains at the production time and during the circulation time, thereby contributing to the accumulation process (Ercan, 2011; Aksoy, 2017: 42).

In this study, the possible effects of the concept of Entrepreneurship 4.0 on the concept of entrepreneurship, the results and the relation with entrepreneurship will be tried to be investigated. And also, the relationship between the concept of industry 4.0 and entrepreneurship was investigated. The relationship between the changes and developments that can form a theoretical framework and the applications of these changes and entrepreneurship have been tried to be examined.

The Fourth Industrial Revolution, which has just begun to be studied in the literature of our country; only in a theoretical and fundamental sense, in a narrow framework. One of the aims of this study is to emphasize the importance of the concept and to be able to investigate other concepts involved in

production activities such as "entrepreneurship". Due to physical constraints and time constraints we are planning to create a theoretical basis for the time being so that it will not be possible for us to work on the whole country and for every individual in the sample, and we will plan more extensive studies according to the concepts and circumstances in the coming periods.

For the final part of this study, a SWOT Analysis has been made to explain possible effects of industry 4.0 on the entrepreneurship concept. SWOT analysis is a technique which used to identify the strengths and weaknesses of the organization being examined and to identify opportunities and threats that originate from the outside world. It is one of the techniques that allows to conduct situation analysis in scientific sense. Swot analysis can also be described as a study with strategic prescription. The following analyzes of the establishment can be made by SWOT analysis (Aktan, 2005; Çoban ve Karakaya, 2010: 347; Özan vd., 2015:9-10);

- Analyzes the strengths of the organization.
- Analyzes the weaknesses of the organization.
- Analyze the opportunities of the organization.
- Analyze the threats of the organization and take action against them.

For Turkish entrepreneurs and for the whole Turkish industry, what will 4.0 revolution bring and take should be seriously indicated. For this phenomenon, strenghts are;

- Increased productivity conditions,
- Growth in high skilled and well-paid jobs,
- Increase in customer satisfaction,
- New markets,
- Production flexibility and control.

Weaknesses are;

- High dependence on the flexibility of technology and networks: small accretions can cause great effects,
- Dependence on various success factors such as standards, consistent framework, appropriate skills, investment and labor supply with R-D,
- Development and implementation costs,
- Potential control loss,
- The need to introduce semi-skilledunemployment and skilled labor imports.

Opportunities are;

- Opportunity to advance in global or local leadership (on behalf of companies and countries),
- The ability to develop new markets for products and services,
- The ability to combat negative demographics,
- Connection with new supply chains and expansion for SMEs.

And Threats are;

- Increased threats of cyber attacks,
- The fragility and fluctuations of global value chains create an unfavorable structure,
- Foreign investors may have a problem of compliance with Industry 4.0.

After analyzing this conditions of Industry 4.0, for countries and companies; as in the first three industrial revolutions, which will be decisive in this period is the question "how do I catch this wave?" rather than "what's going on?". For Turkey, to be among the most competitive economies, to follow



these global developments and to be among the leading implementing economies of Industry 4.0. To ensure and sustain the sustainability of our competitive advantage with the industry 4.0 approach. To create a Turkish industry with a high added value and a much larger share of the world production value chain. Contributing to the achievement of the goal of rising to a higher level from the country group in which Turkey is located (Alçın, 2016: 47; Uglovskaia, 2017: 41-47).

The concept of entrepreneurship is in constant change and development, because it takes place in the global economic order that takes place in continuous change and development. The practices of individuals and organizations, developments in production systems, technological advances differ from day to day, and entrepreneurs are pushing to update their practices by observing these changes (Naktiyok ve Kök, 2006: 77-78). The differences that each industrial revolution brings and takes about differ, and for entrepreneurs the conditions of each industrial revolution are different. For this reason, entrepreneurs should need to update and regulate their applications according to industrial conditions, in the name of organizational success and continuity (Mungan, 2013: 14-15).

The "Industry 4.0 Revolution" plans to integrate artificial intelligence, the internet of objects, artificial neural networks, cloud technology, and so on into the organizational world and plan to integrate them into their production processes. The aim of the fourth industrial revolution is a production model in which all living or non-living objects are in communication with one another and connected to each other by internet or local networks. Entrepreneurs should also be prepared to update their practices in consideration of these developments and be prepared for every possible development. They should learn about these concepts and make necessary updates in an individual and organizational terms (Geissbauer vd., 2014: 35-40; Smit vd., 2016: 20-24).

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