International Journal of Multidisciplinary Research and Development
Online ISSN: 2349-4182, Print ISSN: 2349-5979; Impact Factor: RJIF 5.72
Received: 06-07-2019; Accepted: 07-08-2019
www.allsubjectjournal.com
Volume 6; Issue 10; October 2019; Page No. 28-32

Global strategic risk analysis of high-tech businesses in the era of industrial revolution 4.0

Dr. Nguyen Hoang Tien[1], Phung The Vinh[2], Tran Duy Thuc[3]
[1] Saigon International University, Vietnam
[2] Hoa Sen University, Vietnam
[3] Dong Du Investment and Consulting Company, Vietnam

Abstract
This article in turn introduces global, high-tech and high-tech businesses. What are the concepts of industrial revolution 4.0? The effects of industrial revolution 4.0. Risk situation of high-tech enterprises in the era of industrial revolution 4.0 and offering recommendations and solutions for businesses. Thereby can better understand the industrial revolution 4.0, the beginning of a new industry with opportunities and challenges for the economy. Based on the situation of enterprises proposing measures to overcome as well as avoiding risks. By forcing businesses to change business, organizational, governance and business culture models, businesses must change, invest heavily in information technology systems and access high quality human resources.

Keywords: strategic risks, high-tech enterprises, industrial revolution 4.0

1. Introduction
The fourth industrial revolution is a hot keyword in the current economic and scientific forums. Industry 4.0 Concept (Industry 4.0) or the fourth Industrial Revolution for the first time is mentioned in the 2012 High-tech Strategic Action Plan of the German Government. By 2016, the 4th Industrial Revolution concept was first published in the official publication by the World Economic Forum to warn the world about the beginning of a new industrial revolution with Extremely big opportunities and challenges for governments and economies. Industrial revolution 4.0 is taking place in many developed countries. It gives mankind the opportunity to change the faces of economies, but there are hidden risks. Along with that is the promise of life-changing of many businesses if this village is welcomed. Prior to the current wave of industrial revolution 4.0, technology, knowledge and creativity have become key factors that determine the competitiveness and economic growth of the country as well as each enterprise. In the value chain of a product, the processing stage has the lowest value, the highest value is upstream (idea, brand, research results, intellectual property rights, design, supply). and downstream (distribution, sales, marketing, after-sales service). Science and technology enterprises are those who have new technology ideas, innovative business models and risk-taking models to bring new products and services to market. Moreover, the rapid growth characteristics of science and technology enterprises have the potential to become strong enterprises with great economic value in a short time, contributing to building the country's economy. become a knowledge-based economy. In addition to opportunities, there are also many challenges including: emerging new disputes related to intellectual property, geographical indications, insecurity of information, hackers, malware, Users have not yet approached and familiarized with new technology. In fact, new technologies under the wave of Industrial Revolution 4.0 spread throughout the world have brought about influence in Vietnam and initially contributed in a positive direction in socio-economic development. To shed more light on the risks from high-tech enterprises in the 4.0 industrial revolution today we analyze global strategic risks of high-tech enterprises of the 4.0 era.

2. Theoretical Framework
2.1. The concept of global strategy
The global strategy is an enterprise strategy that considers the global market as a unified market so businesses produce and supply standardized, homogeneous and identical products, such as electronic products, steel, paper, pen, services such as parcel transport service. Businesses implementing this strategy have global products, produced on a global scale in a few highly efficient workshop locations and carry out product marketing through a small number of distribution channels. middle These businesses assume that there is no difference between countries when referring to customers' tastes and preferences, and if there are differences, customers will still ignore them because of the conditions to buy the product of relatively good quality for a low price [1]. With policies such as stabilizing energy prices and goods, the confidence of improved business circles and the effect of the industrial revolution 4.0 are considered the key factors driving global economic growth [2].

2.2. Definitions of high technology and high – tech companies
High technology is a technology with a high content of scientific research and technological development, integrated from modern scientific and technological achievements, in order to create quality and calculated products. Outstanding performance, high added value and environmental friendliness, plays a very important role for the formation of new manufacturing and service industries

or modernization and industrialization of existing production and service sectors [3].

High-tech enterprises need to meet: producing high-tech products on the list of high-tech products encouraged to develop; applying environmentally-friendly and energy - saving measures in production and product quality management up to Vietnam's standards and technical regulations, the specialized standards of international organizations [4].

2.3. Industrial revolution 4.0

The industrial revolution 4.0 or 4th industrial revolution in the world is taking place in many developed countries. Industrial revolution is a time marking a great turning point of human in society, thanks to the application of new technological achievements in life, thereby changing the overall picture of society (in a positive direction). The 4th industrial revolution is fundamentally changing the world's production, affecting countries in many ways, a production revolution associated with technological breakthroughs, inter related to internet connection, cloud computing, 3D printing, sensor technology, virtual reality, ... Besides, it also has strong impacts on specific sectors and sectors such as automation production, traffic, banking and finance, education. The focus is on building a hyperlinked world based on digital technology and integrating all smart technologies to optimize processes and production methods [5].

The nature of technology 4.0 is directed at automation. So it is not far from machines to replace people. This contributes to increased productivity and benefits, but it is difficult for workers to adapt themselves to technology. For example, booking air tickets, taxi, hotel booking or online payment now has become simpler and easier. Current internet utilities after 10 years may become obsolete. You can see Uber or Grap even though there are no cars but they are the largest taxi companies in the world. It is hard to imagine how the industry will be in 10 years, maybe we will be wearing internet-connected clothes, glasses are also online and smartphones will become real unseparated objects. And maybe services that are not connected to the phone, the internet will soon be removed [5].

3. Global strategic risk of high-tech enterprises in the era of industrial revolution 4.0

3.1. Impact on labor market

This revolution is capable of breaking the labor market. Automated replacement for workers in the entire economy, the replacement of workers by machines can exacerbate the difference between profits and investment capital and profits compared to labor. . The process of being replaced by this technology can also lead to an increase in safe and higher income jobs. In particular, areas such as textiles, footwear, electronics or areas where we use a lot of labor will be the most affected. It can be seen that knowledge is an important element of future production, not capital. This will give rise to an increasingly separate job market into "low / low-wage" and "high-skill / high-wage" segments, which in turn will lead to an increase in social frustration [6]. We now have difficulty figuring out what future work will look like, but researchers believe that ultra-high automation and the ability to link in the short term will certainly have an impact on the workforce. The advent of cooperative robots capable of moving and interacting will help low-skilled jobs achieve leaps and bounds. Initial automation will affect office, sales, customer service, and supporting industries. The process of automation robots, automatic reports and virtual assistants will become popular. Claims in the insurance industry may not require human intervention because most customer queries are answered automatically. In finance, consulting robots are available in the market. In the judiciary, computers can quickly read millions of emails and cut investigation costs [7].

3.2. Impact on businesses

About expectations with customers: Customers are increasingly becoming the center of the economy, so the way of service must be improved so as to bring more benefits with the best quality for customers because of increasing customer requirements. Material products and services can all be enhanced with digital technology to increase their value. New technologies make properties more durable and flexible. Meanwhile, in a world where customers can experience more, services based on user data analysis require new forms of cooperation. The emergence of global platforms in a flat world and new business models that lead to organizational and cultural development of businesses will also have to be reviewed. The demand of customers for quality is higher and higher, if enterprises cannot meet, they will regress and lead to bankruptcy because of the great competitiveness. However, because of the high competition, the most beneficiaries are customers. To be able to compete is to survive in the technology war, enterprises must constantly change, improve products and services to meet customer needs [7].

Regarding product quality improvement

Technologies that underlie the industrial revolution 4.0 are having a big impact on businesses, in which the speed of innovation and subsequent breakdowns has continuously surprised even businesses. Have the best links and get the best information. On the supply side, in many industries, technologies are emerging to create entirely new ways to meet current needs and to significantly disrupt existing industrial value chains. The emergence of creative, fast-paced competitors, with access to global digital platforms for research, deployment, marketing, sales and distribution, can overthrow the It is faster than ever by improving the quality, speed, or price for the value offered. The competition of quality accompanying prices is a problem for entrepreneurs, small businesses that are not enough capital can be eliminated from the market, especially the production and supply industry. . How to make the product quality high but the price is reasonable and how customers can trust their products and services. The problem of shortcomings for enterprises is to have high quality products that need to invest in modern machinery and frequently change, causing a lot of costs. In addition, pay for labor is increasing to be able to motivate workers [7].

About network security protection

The ever-growing development of Internet of all kinds allows these companies to better access each unit, thereby monitoring and evaluating their effectiveness in real time. Thus, with the 4.0 industrial revolution, businesses can start businesses more easily, with less capital while bringing big profits in a shorter time. However, hyperlinks also increase network security risks. According to Symantec, the current

energy is one of the five areas most globally targeted by hackers. In 2012, Saudi Aramco took a whole week to repair the computer system after being attacked by a virus. In 2013, many Austrian and German power grids were threatened after being hacked into the network. Technology 4.0, if not strictly protected, will lose a large amount of information that makes it difficult to be "questioned" by hackers that will cause billions of dollars in damage and threaten national security. Subjects targeted by hackers are not only government agencies, financial institutions, but also entertainment. Recently, a group of hackers called Dragonfly 2.0 has infiltrated systems that control power distribution networks in the US and Europe. On September 6, computer security firm Symantec said the Dragonfly 2.0 group had access to operating systems in a number of energy operations in the US, Turkey and Switzerland, to the extent that it wanted, this group. can sabotage, even take control of those systems. This raises the risk of dangerous outages caused by remote control [7].

Corporate culture

In the 4.0 era, competitors can copy everything from strategy, product, system, technology know-how in just a click, except one thing. The most they cannot copy or borrow is the corporate culture. Today's corporate culture is different from before, by creating the value of common belief in the sustainable development of businesses in an environment with diverse and multi-dimensional interaction of subjects, not only between people For people, that between people and robots, between the human world and the physical and biological worlds is not easy. Culture must be reconciled to promote the power of a multi-dimensional world and hyperlink [8]. If you consider businesses as houses, then corporate culture and technology 4.0 are all pillars. If the business is considered a vehicle, the sure motive is the entrepreneurial spirit, the steering wheel is the corporate culture and the wheel is technology 4.0.

3.3. Human resources

Experts say that the digital age will completely change the way we live, work and produce, especially in the field of labor, when machines gradually replace people. Our country is not out of that trend, especially when the labor force is abundant but lacks the capacity and skills. In fact, the proportion of unskilled workers who do not have technical expertise accounts for a large number. Not to mention the labor force lacks necessary skills such as team work, problem solving, skills in informatics, foreign languages, professional ethics, lack of sense of responsibility and slow adaptation to the new environment, the capacity to innovate and create science and technology of highly qualified workers is still weak. The skills needed for workers to be ready to participate in the industrial revolution 4.0 will be skills to solve complex problems, critical thinking, creativity, human resource management, co-ordination with copper career, emotional intelligence, evaluation and decision making, service orientation, negotiation, flexibility in awareness. In the digital era, labor groups are affected, especially weak working groups such as high age, low skill level. This leads to many jobs that can be lost but many others can also be opened. Therefore, from now on, the young force prepares to participate in the labor market, in addition to knowledge on the school, need to equip the necessary skills to catch the trend and the best job opportunities in the future [9].

3.4. Global strategic risk situation of Vietnamese enterprises

The challenges facing Vietnam are huge, especially in the context of a developing country. Although the education level of Vietnam is generally improved, the rate of skilled labor is still low. Although labor productivity of Vietnam has improved significantly in the direction of increasing steadily over the years, it is still very low compared to many countries in the region. The technology absorption capacity of Vietnamese enterprises only stands at 93rd place out of 127 countries. The number of innovative start-up businesses is fast, but Vietnam has no start-up businesses worth over $ 1 billion. In terms of infrastructure, both in terms of infrastructure, connection, data, applications and information technology human resources, Vietnam is at the world average level. According to the ranking index of the e-Government of the United Nations in 2016, Vietnam ranked only 89/193 countries and ranked 6th in ASEAN. Recently, when assessing the readiness of countries participating in the industrial revolution 4.0. The World Economic Forum places Vietnam in an initial national group but is very close to the high-potential group with a ranking of 48/100 in terms of production structure. This shows that, compared to low-middle income countries, Vietnam has a better chance of benefiting from the industrial revolution 4.0. But to turn the opportunity into reality, it is necessary to have a strategic solution and urgent action to overcome challenges, and at the same time, need to participate and actively respond to government agencies and scientific forces - technology, business and people [10].

4. Solutions to Global Strategic Risks Related with Industrial Revolution 4.0 of High-tech Enterprise

4.1. Corporate strategy

Firstly, to study the advanced technologies of industrial revolution 4.0 from developed countries, select appropriate strategies and apply them, to improve position in the value chain. Enterprises must flexibly adjust products according to consumers' needs, integrate advanced technologies to minimize production process, reduce delivery time, shorten product life cycle but still ensure capability. production management and product quality, increasing competitiveness.

Secondly, to focus on integrating digital technology: Promote the development of production and business solutions based on digitalization, integrate with sensor systems, control systems, communication networks for business and customer care; efficiently store and use big data based on cloud computing; collect, analyze and process large data to create new knowledge, support decision making and create competitive advantage; Effective analysis, evaluation and application of data collected from machines and sensors, to quickly make decisions to improve safety, operational efficiency, work processes, services and maintenance .

Thirdly, businesses need to develop new skills for each individual as well as for organizations; effectively participate and use the smart supply chain created by the 4.0 industrial revolution, more closely linked to customer needs.

Fourthly, consider people to be the most valuable resource of the business. Human resource development strategy must be part of the long-term development strategy of the

enterprise. In particular, first of all, there is a solution to improve the quality of existing human resources of enterprises, especially the staff and key specialists through training activities, updating knowledge and technical equipment. (focus on 3 skills: Proficient in professional skills, foreign languages, first of all English; proficient in information technology, computers) to improve labor productivity; attach importance to recruitment, have a "headhunting" strategy to supplement high quality human resources for businesses.

Fifthly, we need to attach greate importance to corporate restructuring in the spirit of entrepreneurship, innovation and creativity. To review and update to timely adjust and renew the corporate governance model in line with the development scale of the business in each period, build a streamlined, efficient and forceful work properly, right people to ensure the highest labor productivity.

Sixthly, we need to apply new scientific and technological advances in industrial revolution 4.0 in business administration, construction, project management, project promotion, introduction of real estate products online. In which need to have well-organized institutions to disseminate and promote the application of technology, create an established environment and support business development, the education system must capture and respond effectively to the performances. variable in the labor market, increasing the level of cloud computing applications, expanding access to information and communication technology infrastructure and digital security management [11, 12, 13, 14, 15].

4.2. Issues of human resources

In order to solve the problem of global strategic challenges and risks of the industrial revolution era enterprises, 4.0 factors of human resource improvement are also very important, need to implement multiple solutions both mechanically regulations, policies and adaptations of enterprises for training and recruiting high quality human resources, specifically:

Firstly, to fully assess with the actual data on the level of and current labor situation at a wide and national scale to have an honest, objective and long-term vision of the quality of human resources. Thereby, we can give timely advices to be able to adjust reasonably to the mechanisms and policies.

Secondly, enterprises need to have a close coordination mechanism according to the model of schools - businesses - workers. Based on the needs and development strategies of enterprises, the school conducts training according to "orders" when selecting and training in accordance with capacity and needs. This measure should not be followed by the above measures but should be implemented immediately to ensure the demand for competition on human resources as well as create the value of the business, which will replicate the model for other businesses.

Thirdly, strengthen international cooperation in training technical and high-tech human resources. This is the key point when the majority of domestic training institutions can meet a very small part of demand. Good implementation of this method will create "chain" effects that the person who has been trained before can directly guide or train the next manpower [16].

4.3. Solutions for corporate culture

To build a successful corporate culture: leadership thinking and vision because this is the driving factor for where the business goes. Besides, trust is an important factor for employees to trust, stick and make them devoted to the company. In order for enterprises to operate effectively, there should be a suitable management model. There are many stories about the governance model associated with leaders, where the thinking and vision of the leader will determine how the culture of that business looks. The core value of corporate culture is the value of faith, thereby creating living values and dedication values, then showing the external values of behavior, interaction between people together. In the era of industrial revolution 4.0 with the continuous development of technology, the main robot represents intelligent artificial intelligence created by humans, can replace people and improve labor productivity. Robots have basic skills and memory, the interaction and feeling between people and robots towards a long-term goal where morality and belief are the personal value of a human being that robots do not possess [17].

5. Conclusions and Recommendations

The Industrial Revolution 4.0 opens many doors for countries to develop, however, how to get the countries to recognize and make the best use of these opportunities is the question that the Government and businesses countries are anxious to find answers. According to Standing Vice-Minister of Foreign Affairs Bui Thanh Son, developing countries like ASEAN countries can create a favorable environment; strongly encourage growth motivation to change. So, there is absolutely a chance to grow faster, more sustainably and comprehensively in the industrial revolution 4.0. Industrial revolution 4.0 forced enterprises to change business, organization, management and business culture models, requiring enterprises to make large investments in information technology systems and access high quality human resources. Human resources need to be knowledgeable about technology, capable of multitasking, confident, independent and in need of great learning. There should be policy directions to develop priority areas such as: digital technology; network security; artificial intelligence. An important factor that businesses need to understand, update the legal framework, human resources and the synchronization of 4.0 technologies. The Industrial Revolution 4.0 is gradually phasing out the dominance of the old management and business model, opening up to countries with a promising but challenging future. In order to adapt well in a fast-moving world under the impact of new technologies, ASEAN governments and businesses are more than ever needed to get up and promote initiative and creativity to find directions, New, suitable development solution.

References

1. http://www.dankinhte.vn/chien-luoc-toan-cau-global-strategy-la-gi/
2. https://m.bnews.vn/kinh-te-toan-cau-2018-lao-dao-trong-vong-xoay-xung-dot/109044.html
3. https://vi.wikipedia.org/wiki/C%C3%B4ng_ngh%E1%BB%87_cao
4. http://cafebiz.vn/phap-luat/doanh-nghiep-cong-nghe-cao-la-gi-20150616174127867.chn
5. https://blogchiasekienthuc.com/dan-cong-nghe/cach-mang-4-0-la-gi.html
6. http://www.ciem.org.vn/Content/files/2018/vnep2018/C

%C4%9010%20-%20T%C3%A1c%20%C4%91%E1%BB%99ng%20CMCN%204_0%20%C4%91%E1%BA%BFn%20ngu%E1%BB%93n%20nh%C3%A2n%20l%E1%BB%B1c%20VN-converted.pdf
7. http://egov.hufi.edu.vn/nghien-cuu-trao-doi/nhung-co-hoi-thach-thuc-cua-cuoc-cach-mang-cong-nghiep-lan-thu-tu-doi-voi-viet-nam-va-nhung-kien-nghi-de-xuat-tu-goc-do-khoa-hoc-va-cong-nghe-435.html
8. https://tinnhanhchungkhoan.vn/thuong-truong/xay-dung-van-hoa-doanh-nghiep-thoi-40-245211.html
9. http://tapchitaichinh.vn/nghien-cuu-trao-doi/phat-trien-nguon-nhan-luc-viet-nam-dap-ung-yeu-cau-cua-cach-mang-cong-nghiep-40-302127.html
10. https://dantri.com.vn/dien-dan/cach-mang-cong-nghiep-lan-thu-tu-can-tam-nhin-chien-luoc-va-hanh-dong-quyet-liet-20180809223409629.htm
11. Ministry of Industry and Trade (2017), 4.0 CMCN Forum Document, held on April 11, 2017;
12. Parliamentary Science and Technology Committee of the National Assembly (2018), document of Science and Technology Forum with Vietnamese enterprises in CMCN 4.0, held on May 16, 2018;
13. Global competition report of the World Economic Forum 2017;
14. Accenture Consulting (2017), Manning the Mission for Advanced Manufacturing: New Talents in Singapore's Energy, Chemicals and Utillities Industries;
15. Nur Haziqah A Malek (2018), ASEAN backup needed to face Industry 4.0, the Malaysian Reserve, 2nd May 2018
16. http://www.ciem.org.vn/Content/files/2018/vnep2018/C%C4%9010%20-%20T%C3%A1c%20%C4%91%E1%BB%99ng%20CMCN%204_0%20%C4%91%E1%BA%BFn%20ngu%E1%BB%93n%20nh%C3%A2n%20l%E1%BB%B1c%20VN-converted.pdf
17. https://tinnhanhchungkhoan.vn/thuong-truong/xay-dung-van-hoa-doanh-nghiep-thoi-40-245211.html