

# Transformation of Accountants in Industry 4.0 and the New Normal Era

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## Abstract

This study aims to examine the transformation of accountants in industry 4.0 and the new normal era. The research method used in this research is descriptive qualitative through a study of published literature with the problem under study. The data collection method used in this research is literature study and literature study, while the data source used by the author is secondary data, namely data obtained from other parties, not directly obtained by researchers from the research subject. Based on the results of the study, it can be concluded that adaptability is an absolute requirement that accountants must have in industry 4.0. On the other hand, many changes have occurred in various sectors since the outbreak of covid 19. The covid 19 pandemic clarifies the reality of how technology has become a primary need in every aspect as well as changing many methods that have been commonly used. This makes accountants aware of being sensitive and able to adapt to technology in the new normal era.

## Keywords

Accountants, industry 4.0, new normal

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## Introduction

At this time we are entering the fourth industry or often referred to as Industry 4.0. The essence of industry 4.0 is the digitalization of almost all business processes and the need for the number of human resources and the demands of their skills. Industry 4.0 is impossible to avoid let alone prevent. The positive impact that can be obtained is the efficiency, effectiveness, and simplification of business processes on a large scale in almost all industrial sectors without exception. Industry 4.0 presents a major threat to conventional business processes as well as presents great opportunities for digital-based businesses including great job opportunities. In the midst of accountants' efforts to adapt to industry 4.0, the world was shocked by the outbreak of covid 19, where this virus has caused a global pandemic. The COVID-19 pandemic has an impact not only on everyone's psyche but also on the economies of the world's countries, including Indonesia. Various efforts were implemented starting from social distancing, school from home, work from home to large-scale social restrictions implemented in Indonesia as of April 23, 2020. Indonesia carried out various policies to slow the spread of covid 19, even in a number of countries setting a lockdown. Realizing the need for appropriate action to keep the economy running, the new normal became a new policy set by the government. Not only in Indonesia but also implemented by various countries in the world to stabilize the country's economy. This is based on the fact that this global pandemic cannot be said to be over, but life must go on, so it cannot be avoided, but must be faced together. Therefore, people must begin to get used to adapting to new life habits which are now known as the new normal. Based on the description above, the challenges faced by accountants are so complex today. Before the pandemic, an accountant was required to be able to adapt to advances in technology and information so that his role could not be replaced. This adaptability is an absolute requirement that accountants must have in industry 4.0. On the other hand, many changes have occurred in various sectors since the outbreak of covid 19. Accountants have an important role in shaping businesses and the economy in maximizing opportunities. The COVID-19 pandemic clarifies the reality of how technology has become a primary need in every aspect while changing many methods that have been commonly used. This makes accountants aware of being sensitive and able to adapt to technology in the new normal era.

## Literature Review

### Accountant

Accountant is a professional designation and title given to a graduate who has studied at the economics faculty majoring in accounting at a university or college and has passed the Accounting Professional Education (PPAk). According to Dirgahayu, Supriyono, Domai, and Saleh (2021) accountants are accounting experts in charge of compiling, guiding, supervising, inspecting, and improving bookkeeping and administration of companies or government agencies. Provisions regarding the practice of accountants in Indonesia are regulated by Law Number 34 of 1954 concerning the Use of an Accountant Degree which requires that an accountant degree can only be used by those who have completed their education from university and have been registered with the Ministry of Finance of the Republic of Indonesia (Irsyadillah & Bayou, 2021).

### Industry 4.0

The concept of industry 4.0 was first used in public at the Hannover Messe industrial exhibition in the city of Hannover, Germany in 2011. From this event, the idea of industry 2.0 and industry 3.0 actually emerged, previously known only as the technological revolution and the digital revolution. All these revolutions took place using the previous revolution as a base. Industry 2.0 will not be born if all this time we rely on muscles, wind and water to produce. Industry 3.0 essentially upgrades production lines with computers and robots. So, industry 4.0 is also sure to use computers and robots as the basis but with the addition of many advances.

**First**, the most noticeable progress is the internet. This is the first part of Industry 4.0. "Internet of

things" when the computers in the factory are connected to the internet, at any time if there is a problem in the production line, the factory owner can immediately find out, wherever they are. Smartphones that always keep us connected to the outside world are an important instrument in industry 4.0.

**Second**, technological advances have also created 1001 new sensors and 1001 ways to utilize the information obtained from those sensors that record everything 24 hours a day. There are still 1001 other information that can be obtained from 1001 different data, so there are 1001-1001 ways to increase factory productivity that were previously unthinkable. Because of the large variety and amount of this new data, this aspect is often called Big Data.

**Third**, related to the first and second, is cloud computing. Complex calculations still require large sophisticated computers, but because they are connected to the internet, because there is a lot of data that can be sent via the internet, all these calculations can be done elsewhere, not at the factory. So, a company that has 5 factories in 5 different countries just needs to buy a super computer to process the data needed simultaneously for all five factories. No need to buy 5 super computers to do it separately.

**Fourth**, this is actually the biggest. Machine Learning is a machine that has the ability to learn, which can be aware that it has made a mistake so that it makes appropriate corrections to improve the next result.

The main characteristic of industry 4.0 is the presence of disruptive technology that is so fast and rapid that it poses a threat to giant industries and changes in company size where currently the size of the company does not need to be large, but the company must be agile in utilizing technology and information. On the other hand, Industry 4.0 brings positive changes to the accounting environment, including better data quality, reduced greenwash and brown wash, higher data credibility, transparency and digital real time data.

## **New Normal**

New normal is a new order to adapt to covid 19. In another sense, it is a new order, habit and behavior based on adaptation to cultivate healthy clean living behavior. Implementing the new policy is certainly not arbitrary and requires careful consideration and preparation. New normal life can only be achieved when a country has met a number of conditions. These requirements were issued by the World Health Organization (WHO) as a reference for all countries affected by the COVID-19 pandemic. When referring to WHO requirements, there are six criteria that need to be met before easing restrictions and starting the new normal era. The six criteria include the state must have evidence that the spread of covid 19 in its territory has been controlled, the existing health system is able to identify, isolate, test, trace contacts, to quarantine infected people, can suppress outbreaks in areas with high vulnerability, has established preventive measures in the work environment, the risk of cases outside the region must be controlled and provide opportunities for opinion and participation to the community.

## **Research Methods**

The research method used in this research is descriptive qualitative through a study of published literature with the problem under study. This study describes the transformation of the role of accountants in the era of the industrial revolution 4.0 and the new normal era. The data collection method used in this research is literature study and library study, while the source of data used by the author is secondary data, namely data obtained from other parties, not directly obtained by researchers from the research subject.

## **Discussion**

### **Digital Accounting in the New Normal Era**

New normal is a new order to adapt to covid 19. In another sense, it is a new order, habit and behavior based on adaptation to cultivate healthy clean living behavior. Digital accounting is the process of identifying, classifying and summarizing transactions using digital technology. In the world of accounting in the new normal era, you can use cloud-based accounting (E-Accounting), where recording transactions, making financial reports and managing business finances with E-

accounting. Digital accounting in the new normal era includes several aspects, namely:

### **Managerial aspects**

This aspect prepares updated accounting information (digitalization) including cash flow and projections, resetting cash flow, evaluating accounts payable, income level and cost structure as well as investment feasibility analysis.

### **Regulatory aspects**

Consists of early presentation of audited financial statements for the benefit of the general meeting of shareholders, investors and management decisions.

### **Aspects of Educational Institutions**

This includes the development of a digital financial accounting curriculum, innovation of management accounting models needed in management and operational decisions, updating of the accounting curriculum according to market needs and developing the competence of digital accounting educators

### **Human resources aspect**

Namely updating self-competence in the development of digital accounting

## **Challenges of Accountants in Industry 4.0 and the New Normal Era**

In industry 4.0, accountants have begun to be faced with several positions such as: Signal admit to noise, which is a position where accountants are aware of the threat to their profession, and this awareness makes accountants have to prepare themselves to seize opportunities from these threats to be able to take advantage of them (Mia Ika Rahmawati & Aulia Fuad Rahman, 2021). , changes takes hold, ie accountants have begun to feel a change in their activities but feel no need to take a stand because they have not disturbed the "status quo", (Arwani, 2020). The inevitable transformation, namely accountants have made changes due to the "status quo" performance has disturbed by this revolution and accountants must transform changes quickly and the best method is only for some aspects that are deemed necessary, (Jaya & Narsa, 2021) and adapting to the new normal, namely the transformation of the accounting profession as a whole according to the demands of the new industry 4.0 model (Zoghbi et al., 2020), or the accounting profession will disappear if unable to adapt to changes in t that. The following are some of the new skills accountants must have in order to be ready to adapt to change:

### **Technical and ethical competencies (TEQ)**

That is a skill and ability to work consistently with the highest standards of integrity, independence and skepticism.

### **Intelligence (IQ)**

Have the ability to acquire knowledge and use it in thinking, reasoning and solving problems (Huang, Kuo, & Chen, 2020).

### **Creativity (CQ)**

Can use knowledge for renewal, make connections, explore potential results for the creation of new ideas or innovations

### **Digital Quotient (DQ)**

Able to adapt to existing and emerging technologies, capabilities, strategic practices and digital culture.

### **Emotional Intelligence (EQ)**

Able to identify emotions in both self and others and use them to organize and manage tasks (Ahad, Mustafa, Mohamad, Abdullah, & Nordin, 2021).

### **Vision (VQ)**

Able to anticipate trends accurately and think innovatively (Wang, Wang, & Li, 2020).

### **Experience (XQ)**

Able and skilled in understanding customer expectations in achieving desired results and creating value.

## **Transformation of Accountants in Industry 4.0 and the New Normal Era**

In industry 4.0 and the new normal era, the role of accounting has changed, from just recording or book keeping to being a competitive advantage. This change in role will have an impact on the business world, besides that it is necessary to pay attention to the role of accountants in the future and the transformation of the role of accountants. The probability of the accountant profession being replaced by a robot is 95%. The percentage amount is due to the development of big data which takes over the basic work carried out by accountants (recording transactions, processing transactions, selecting transactions). Therefore, it is expected that the accounting profession has a strategy to face the challenges of the accounting revolution. Strategies that can be done are:

- a. Make sure the accountant is certified. By having this certification, the legitimacy and legality as an accountant will be stronger. In addition to certifications recognized in Indonesia, professional accountants also need to obtain certification from international institutions. This, apart from dealing with legality, will also increase the competitiveness of an accountant in dealing with the digital era, especially in industry 4.0.
- b. Create a goal orientation that is in accordance with abilities as a professional accountant, including mastering the field of information technology. Because in the digital era and industry 4.0, all work cannot be separated from technology and the internet.
- c. Make time management. Good time management will make work more organized.
- d. Always up to date. The accounting profession in the digital era must always be up to date to get the latest information. Moreover, new innovations in the accounting field are now emerging. It is important to complete work and analyze problems quickly, precisely and accurately.
- e. Use software to maximize performance. The advantage of using software for accounting is that it is more accurate when compared to calculating manually. Then able to present data faster. And more importantly, it can save time and money.

In addition to the several strategies above, professional accountants must be able to transform into industry 4.0 by increasing mastering skills, insight and being open to change and maintaining good values and ethics to contribute. The accounting profession must also be managed in such a way that it remains with integrity, starting from the settings, standards, systems, processes to the human resources who do it. Furthermore, the competence of the accounting profession that must be improved is the mastery of non-financial data such as data analysis, information technology development and leadership skills. An accountant must also be aware of the development of industry 4.0 by looking at the opportunities that exist. The transformation of the accountant's role above has become an obligation that must be adjusted by an accountant to face the world of work today. The world is changing so fast as a result of massive technological developments. This shows that humans together with technology are developing so rapidly. Technological developments and innovations seem to keep pace with the times. Disruptive innovation, augmented intelligence, and the development of cutting-edge machines seem to be competing to increase the efficiency of the industrial world.



## Conclusion

The presence of industry 4.0 brings changes to the adjustment of human work, machines, technology and processes in various professional fields including the accounting profession. In the midst of accountants' efforts to adapt to industry 4.0, the world was shocked by the outbreak of the corona virus disease 2019 (Covid 19) in which this virus has caused a global pandemic. The COVID-19 pandemic has an impact not only on everyone's psyche but also on the economy of the world's countries, including Indonesia. Realizing the need for appropriate action to keep the economy running, the new normal became a new policy set by the government. Not only in Indonesia but also implemented in various countries in the world to stabilize the country's economy. This is based on the fact that this global pandemic cannot be said to be over, but life must go on, so it cannot be avoided, but must be faced together. Therefore, people must begin to get used to adapting to new life habits which are now known as the new normal. Based on the description above, the challenges faced by accountants are so complex today. Before the pandemic, an accountant was required to be able to adapt to advances in technology and information so that his role could not be replaced. This adaptability is an absolute requirement that accountants must have in industry 4.0. On the other hand, many changes have occurred in various sectors since the outbreak of covid 19. Accountants have an important role in shaping businesses and the economy in maximizing opportunities. The COVID-19 pandemic clarifies the reality of how technology has become a primary need in every aspect while changing many methods that have been commonly used. This makes accountants aware of being sensitive and able to adapt to technology in the new normal era.

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