Knowledge E
enriching | engaging | empowering

Conference Paper

The Challenges and Role Played among Workers of Department Human Resources Management towards Industry 4.0 in SMEs

Fadillah Ismail, Adibah Abdul Kadir, Muhammad Asad Khan, Yuen Pei Yih, and Adnan Ali Hassen Humeed Al Hosaini

Faculty of Technology Management and Business Universiti Tun Hussein Onn Malaysia

Abstract

From smartphones to shrewd refrigerators, innovation has assumed a huge job in progressing most regions of our regular daily existences, yet it is additionally changing the universe of industry. Industry 4.0 is the imprint given to the moderate mix of conventional assembling and modern practices with the non-yielding mechanical world around us. Industry 4.0 is certainly not another development, nor is it a business discipline, anyway another approach to manage to achieve results that were not possible ten years back gratitude to the headways in innovation. To do so, first thing first, it is essential to determine the challenges are faced, and roles are played among workers of Human Resources Management (HRM) towards industry 4.0 in manufacturing SMEs. The study is intended to identify workers of HRM perform the challenges and tasks by randomly select 100 respondents from 50 manufacturing SMEs listed on SME Corp. State Office Perak within Menglembu, Perak. The present study provides a contribution to the area of industry 4.0, among the manufacturing sector of SMEs. The findings of this study show that the adoption of sector 4.0 influences all of the challenges which are lack of skilled workforce training and aging society later retirement. Besides that, all of the roles should play by HRM that SMEs can gain when they start to embrace industry 4.0, which is useful for workers.

Keywords: industry 4.0, human resources management (HRM), challenges, roles

OPEN ACCESS

1. Introduction

Everything began with the Industrial Revolution when the world was first acquainted with steam power, motorization, and production lines that marked the new period of modernization (Rubaneswaran, 2017). Rubaneswaran (2017) expressed that the empowering agents were no other than the world's ground-breaking settlers, the British that developed their developing enthusiasm for logical examination and innovation. They are making unlimited chances and employments for their kin. As time advanced, the quick development of innovation started the Second Industrial Revolution, taking humankind to the period of power. As interest developed, numerous new items were created,

and huge improvements were made in the structure of large scale manufacturing. He likewise refers to that the third time of the Industrial Revolution is otherwise called the Digital Revolution when started a very long time after World War II, respecting the approach of PCs and the underlying phases of mechanization unpretentiously substituting HR in mechanical production systems with robots and hardware.

The wave of the Fourth Industrial Revolution or industry 4.0 is rapidly changing different aspects of our lives (Ghaz, 2017). According to Ghaz (2017) stated that Government German was coined in 2012, industry 4.0 is defined as the next phase in the digitization of the manufacturing sector. Therefore, industry 4.0 will be to replace industry 3.0 after four-decade and so on.
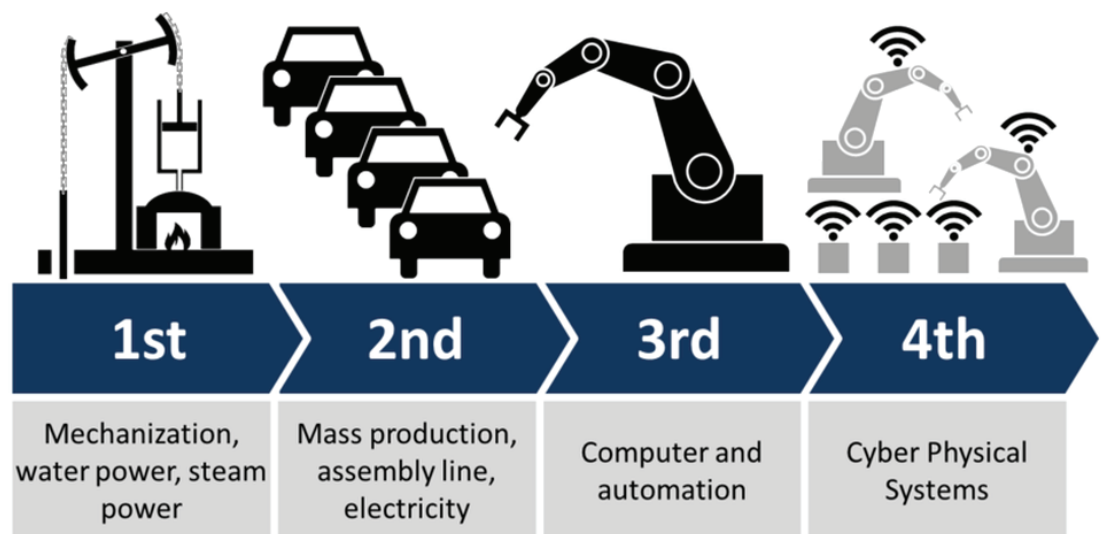

Figure 1: The Industrial Revolution in SMEs (Ahmad, 2016).

The term "Business 4.0" represents the fourth modern unrest. Other related terms incorporate the "Modern Internet" or the "Computerized Factory, although neither takes as complete a view (Reinhard, Jesper, and Stefan, 2015). As indicated by Reinhard et al. (2015) expressed that While Industry 3.0 concentrated on the mechanization of single machines and procedures, Industry 4.0 spotlights on the start to finish digitization of every physical resource and mix into advanced biological systems with worth chain accomplices.

Industry 4.0 will become a sensor. This means smarter and more connective (Alex, 2017). Besides that, industry 4.0 also connectivity, big data, user interfaces simplifying technology use (and increasing worker mobility), smarter more dexterous robots able to work "hand-in-hand" with employees, and additive manufacturing (Alex, 2017).

Ghaz (2017) additionally notice that it includes the robotization of assembling procedures to another dimension by presenting modified and adaptable large scale manufacturing using high technologies. Industry 4.0 would turn into the new ordinary to have among us, people. In addition to the fact that they would affect how we live, work and play, yet they may likewise even manage how we ought to carry on and adjust to the better approach of life (Ahmad, 2016). Also, Ibrahim (2016) said that it is high among the developed and advanced economies that are either technologically ready or fully equipped to take advantage of the new revolution or to be the potential beneficiaries.

1.1. Problem statement

Nowadays, most manufacturers are aware of the Industry 4.0 concept, but so far, only 30 percent have just started to adopt modern technology under Industry 3.0 (Ghaz, 2017). One of the challenges is the practice problem caused by many companies take modern technology under industry 3.0. This is because of a lack of skilled workforce training and aging society later retirement (Saqib, Shuang Cang, Hongnian Yu & Yun Li, 2017). While Ghaz (2017) stated that workers should acquire a different set of skills. However, SMEs have no choice to embrace creative production and include more Industry 4.0 elements into their operations. Therefore, SMEs have to ensure that their workers have the necessary skills and competencies to advance the country's economic transformation agenda in embracing Industry 4.0 (Ghaz, 2017).

Besides that, embracing Industry 4.0 rightly promises an exponential increase in productivity and efficiency. Malaysian SMEs must be aware that they need to adapt to changes brought about by the Fourth Industrial Revolution (Nee, 2017). Below are some roles of HRM that SMEs can gain when they start to embrace Industry 4.0, which is effective for workers.

The objectives of the research are:

1. To explore the challenges faced by SMEs toward industry 4.0.

2. To identify the roles of department Human Resource Management (HRM) in SMEs to adopts Industry 4.0.

1.2. Research scope

The scope of this study is to investigate the challenges faced by SMEs and the role of HRM towards 4.0 industries. The research will be conducted and focus solely on SMEs

in "Perindustrian Rima" which located at Lahat, Ipoh, and Perak. The study used a survey based on the questionnaire. The respondent will participate in this survey from workers of department HRM from companies. The data are collected using a questionnaire, and then the data analyzed quantitatively.

2. Literature Review

The industry is part of the economy and produces highly mechanized and automated material products. Since the beginning of industrialization, the technological leap has led to a paradigm shift. Today, this transition is called the "industrial revolution." There are four evolutionary stages in the industrial revolution (Lasi, Fettke, Kemper, Feld, & Hoffmann, 2014). The concept of industrial development is to identify the three full and unique organizational environments, namely emerging, growing and mature industries, and to demonstrate how each environment presents different SME challenges (Murray & Eric, 1997). The industry is not defined as a group of companies that produce close substitutes but is described as a group of companies with the same organizational form. Therefore, the evolution of the industry is understood as the proliferation of organizational structures, accompanied by the creation, development, and erosion of the emerging, growth, and maturity stages of competitive advantage.

2.1. The history behind industry

The following diagram shows a timeline of the evolution of manufacturing and the industrial sector in general.

At the end of the 18th century (1760- 1840), the British industrial revolution began to introduce machines into production. This includes everything from manual production to the use of steam-powered engines and water as a source of power. This has dramatically helped agriculture, and the word "factory" has become a bit prevalent. One of the industries that have significantly benefited from this change is the textile industry and is the first industry to adopt this method. It was also an essential part of the British economy at the time (Martin, 2017).

The second date was between 1870 and 1914 (although some of its features date back to 1850) and the introduction of pre-existing systems such as telegraphs and railways into the industry. Perhaps the crucial element of this period is to use large-scale production as the primary means of the overall output. The electrification of the factory contributes tremendously to productivity. The mass production of steel
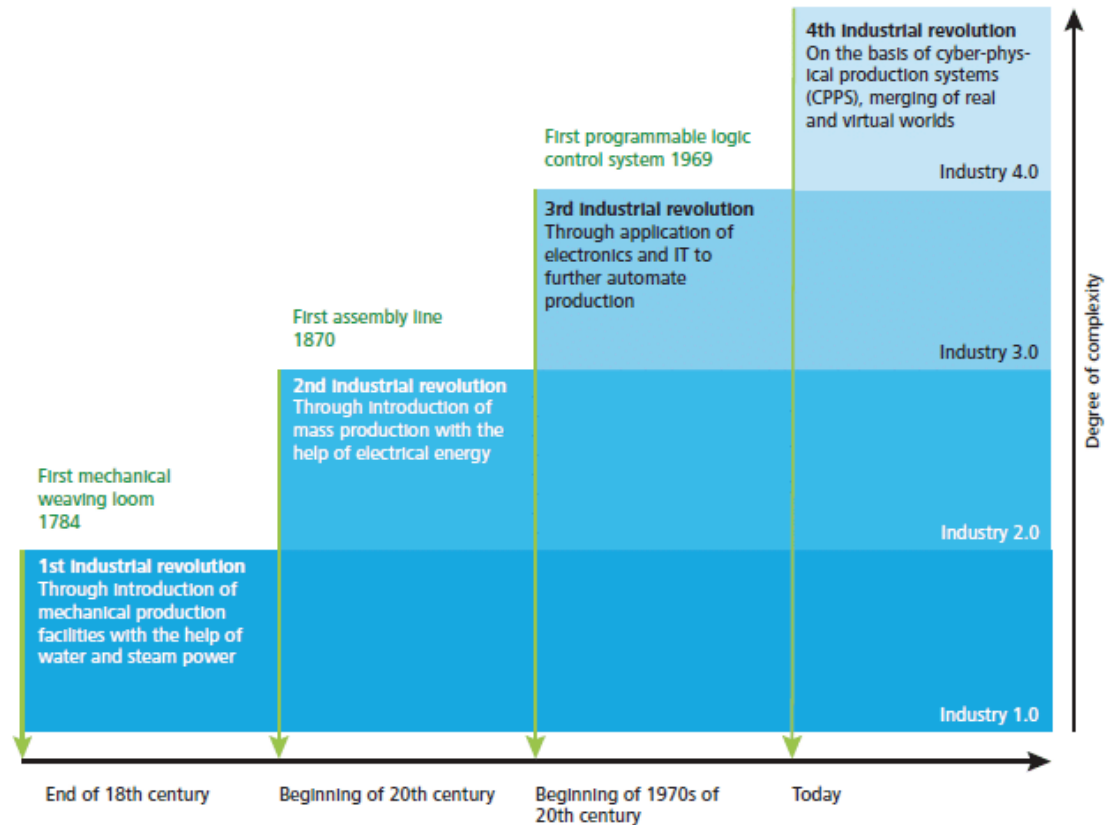
Figure 2: Histories of Industries.

helps to introduce railways into the system, which facilitates large-scale production. Chemical innovations, such as the invention of synthetic dyes, also marked the time when chemistry was in a relatively primitive state. However, with the beginning of the First World War, this revolutionary industrial approach was over. Mass production is indeed not over yet, but only under the same background has made progress, and no one can be called the industrial revolution.

Maybe the third individual is more acquainted with us than others in light of the fact that a great many people are presently acquainted with businesses that depend on computerized innovation for creation. In any case, the historical backdrop of the third mechanical transformation goes back to 1950 to 1970. It is regularly alluded to as the advanced transformation and includes the change from simple and mechanical frameworks to the computerized upheaval. Others consider it the data age. The third unrest was an immediate aftereffect of the enormous advancement of PCs and data and correspondence advances.

The fourth industrial revolution accomplished another degree of computerization in the assembling procedure by presenting tweaked and adaptable large scale manufacturing advancements. This implies the machine will work freely or in collaboration

with people to build up a client situated generation region, continually attempting to look after itself. The gadget is comparable to being a free element, fit for gathering information, investigating information, and giving guidance. This is made conceivable by presenting self-advancement, mindfulness, and customization in the business. Producers will most likely speak with PCs as opposed to working them.

2.2. The concept of Industry 4.0

In the last ten years, we have been a testimony of an inner transformation in our daily life through the emergence of Information and Communication Technologies (ICT). The computer has become so small that almost all technical equipment has disappeared. Also, things are communicated on the Internet's global network. This trend will, of course, also enter industrial production, which will benefit more and more from the progress of information and communication technologies and computer science (Stepthan, 2015).

Cyber-Physical Systems (CPS) is characterized as a transformative innovation for managing interconnected frameworks between physical resources and registering power (Jay, Behrad, and Hung A, 2015). With ongoing improvements prompting higher accessibility and reasonableness of sensors, information procurement frameworks, and PC arranges, the intensity of the present business has constrained more industrial facilities to execute cutting edge strategies. That is a system in an Internet of Things (IoT), are crucial components to conquer the right now unbendable arranging and creation forms (Edward, 2012). The test and key to the achievement of very measured manufacturing plant structures is multi-seller interoperability of robotization innovation, which must be acknowledged through-composed institutionalization activities between the important innovation suppliers, integrators and end-clients.

The Smart Factory configuration makes ready for this specific interdisciplinary joint effort between different industrial companies and the research community (Shiyong, 2016). With the purpose of to help the advancement, application, and assessment of imaginative mechanical plant innovations, the Smart Factory can be perceived as the main European merchant free plant lab for the mechanical utilization of current ICT. The brilliant plant is a basic component of Industry 4.0 that tends to the vertical incorporation and organized assembling frameworks for a unique creation. For the shrewd manufacturing plant to be executed, it should join brilliant articles with enormous information scientific. The keen items can progressively reconfigure to accomplish high adaptability, though the vast information systematics can give worldwide input and

coordination to accomplish high productivity. In this way, the keen processing plant may almost certainly produce redid and small parcel items productively and beneficially.

2.3. Definition of Cyber-Physical Systems (CPS)

A cyber-physical system goes for the coordination of calculation and physical procedures. This implies that PCs and systems can screen the physical procedure of assembling at a particular procedure. Inserted PCs and systems screen and control the physical procedures, with criticism circles where physical procedures influence calculations and the other way around. The monetary and societal capability of such frameworks is boundlessly higher than what has been acknowledged, and huge speculations are being made worldwide to build up the innovation. The innovation expands on the more seasoned (yet at the same time exceptionally youthful) order of implanted frameworks, PCs and programming installed in gadgets whose primary mission is not calculation, for example, autos, toys, medicinal gadgets, and logical instruments. CPS incorporates the elements of the physical procedures with those of the product and systems administration, giving deliberations and displaying structure, and investigation methods for the coordinated entire (Jay, Behrad and Hung, 2014).

2.4. Definition of the internet of things

A cyber-physical system still sounds natural to us today. Machines can trade information and, in a ton of uses, can detect the adjustments in the earth around them. Alarms are an astounding case of that. The Internet of Things, nonetheless, is believed to be what in reality has started Industry 4.0 (IBM Think Academy, 2015).

The Internet of Things is the thing that empowers articles and machines, for example, cell phones and sensors to "impart" with one another just as people to work out arrangements. The combination of such innovation enables items to work and take care of issues freely. This is not valid as people are additionally permitted to intercede ("Understanding the Internet of Things (IoT)," 2014).

2.5. The role of HRM in Industry 4.0

With the digital transformation, traditional roles and career paths are falling away. However, new ones are also being created. This is precisely where the topic of talent management comes into play. Today officially, as indicated by an examination from

fall 2015, 41 percent of Swiss organizations are grumbling of ability deficiencies, eight percent more than in the earlier year (Domingo, 2017). What is more, the quantity of individuals who are of an age fit to work is going to diminish in the coming a very long time because of the statistic change quickly. Joined with the continually declining devotion to organizations, especially among youthful workers, the circumstance is getting to be essential for organizations attempting to win new abilities. Particularly in a worldwide setting with a developing and progressively endless ability pool, it is necessary to recognize and prevail upon the correct hopefuls rapidly. This is the reasonability the executives needs to turn out to be considerably more adaptable. To accomplish this, HR the board must take part in talks about Industry 4.0, ceaselessly looking at the speed of their responses, their readiness, and their degree of digitization (Laura, 2016).

2.6. Challenges in adoption of Industry 4.0

There are many critical problems for Industry 4.0 including lack of skilled workforce and aging society. All these factors need specialized management to cope up with challenges.
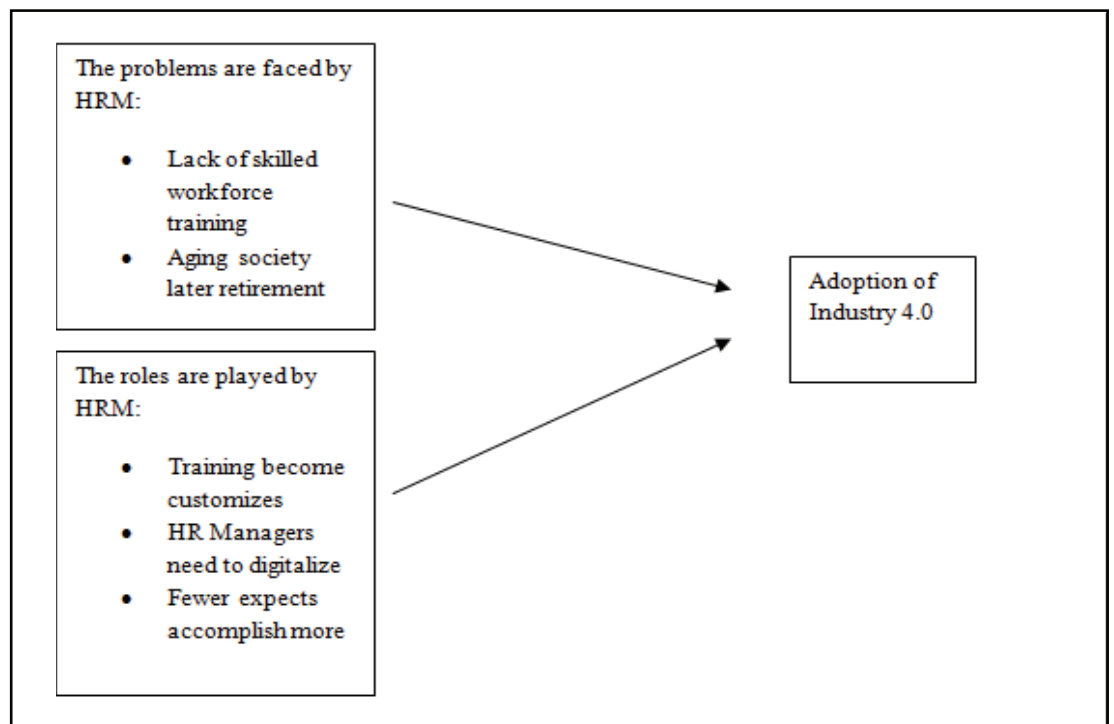

Figure 3: The Framework of this Study.

2.7. Lack of skilled workforce training

Enough skilled workforce can be characterized as information, abilities, propensities, experience or expert skills that mean human capital; businesses require that for activities of specific callings at a particular time (Lenka, 2012). In their voyage to embrace Industry 4.0, every nation is relied upon to experience a few provokes identified with the expertise level of their workforce. The aptitudes which are fundamental today will stop to be so later on, and the workforce will be required to have new abilities in the area of data innovation and information investigation. A higher level of the employment will offer significance to subjective capacities and framework aptitudes over physical capacities while characterizing center business-related ranges of abilities (BRICS Skill Development Working Group, 2016).

2.8. Aging society later retirement

As the populace becomes more established, expanding portions of the workforce explicitly at 60 years old. More established specialists have frequently been viewed as less gainful than more youthful ones, raising the issue of whether a maturing workforce will likewise be a less profitable one. This paper uses proof from the month to month current population survey records to reveal insight into the issue. It reports the quickly developing job of more established specialists in the work showcase and the enduring improvement in their relative income.

Utilizing a standard proportion of laborer profitability, that is time-based compensations and specialists somewhere in the range of 60 and 74 are more beneficial than normal specialists who are more youthful. Contrasted and specialists somewhere in the range of 25 and 59, the compensation premium for more seasoned laborers are as of now between 10 percent and 20 percent of the average pay earned by the more youthful specialists. That compensation premium has been expanding for 10 years. There is little proof that the maturing workforce has harmed profitability (Gary Burtless, 2013).

2.9. The roles of HRM in Industry 4.0

With more choosing to work remotely, more grounded cooperation between HR, administrator, and representatives are required to guarantee elevated amounts of efficiency and innovativeness, keeping everybody drew in and associated (Geoffrey, 2016).

Developing innovation achievements are presently happening like never before, and the Fourth Industrial Revolution will carry with it mechanical headways that enable robots to perform numerous assignments quicker and more proficiently than people right now do day by day. HR needs to build their representative's specialized capacities, train your human workforce, so they grow their range of abilities - just as their administration, inventiveness and enthusiastic astuteness which robots will not most likely impersonate.

2.10. HR managers need to digitalized

In many nations, lawful consistency is so intricate and consistently changing that chief still records for the vast majority of the HR capacity's day by day work. Subsequently, HR procedures were among the first to be digitized and re-appropriated (Mazour, 2018). In a similar tune, Venonika (2018) expressed that In North America and Western Europe today, in any event, 30% of organizations as of now redistribute their finance the executives and the pattern is developing. HR supervisors are enabling the framework to waste no time and begin delivering astonishing work with their groups (Logan Mayville, 2018). Logan Mayville (2018) expressed that some innovation behind every one of those frameworks, and they may be housed inside various applications. These applications run things like time and participation, all-inclusive objectives, enrollment, health programs, and significantly more.

2.11. Training become customized

In today's world, industries are changing every day. Because of this, it is essential to ensure that employees are ready for whatever challenges your company may face. Customized training can enhance job skills and help employees develop further in their professional careers (Stephanie, 2017). Stephanie (2017) also stated that customized programs could focus directly on a particular skill-based need for a business or organization. Once managers decide what your company needs, a training program can be personalized, so it becomes a perfect match for the company. Paula Nurrenbern, who is a resource development specialist, said that customized training provides the participant with individual tools and techniques necessary to be successful.

2.12. Fewer expect to accomplish more

Taking part in any of these propensities can be crippling, driving us to accomplish more and achieve less. They are regularly related or interwoven, making examples of foolish conduct that add to misery and disappointment (Lasser, 2009). In the event that laborers are feeling exhausted, overpowered or out and out over it, the accompanying, time-the board tips can enable specialists to boost their efficiency, so specialists achieve more and return home prior. As a matter of first importance, is discrete work from home. Dana Bilbao, a maker for a Los Angeles-based diversion organization, said that between reacting to individual messages, texting and handling cellphone calls from my children, it could get extreme to remain concentrated on the jobs needing to be done (Beverly, 2018)

3. Research Methodology

3.1. Research design

Along with the completion of this study, a quantitative approach was used in the data collections. A quantitative survey was used to quantify the problem and evaluate the results in some contents. The questionnaire for this study aimed to determine workers of department HRM play the challenges and roles. The survey is then structured into three parts, which are; Section A (Respondents Profile), Section B (problems faced) and Section C (roles played by workers of HRM). The questionnaires were distributed among the workers of department HRM in Perindustrian Rima, Lahat. A total amount of 100 respondents are obtained to complete the survey. The questionnaire was used in this study, which functions to determine HRM plays the problems and roles. Hence the framework had been developed. The data collected are analyzing quantitatively using SPSS.

3.2. Population and sample

In this study, 50 manufacturing SMEs are selected from all manufacturing SMEs listed in SME Corp. State Office Perak within Menglembu, Perak. Manufacturing SMEs mentioned above are referred SMEs are defined as firms with sales turnover not exceeding RM50 million OR many full- time employees not exceeding 200 (SME Corp Malaysia, 2017). However, we have 100 of the respondent from 44 companies of sample size had responded. Hence, the research is based on data from 100 respondents.

3.3. Data Collection and Analysis Techniques

A sample is a limited piece of a measurable populace whose properties are concentrated to pick up data about the entire (Webster, 1985). When managing individuals, it tends to be characterized as many respondents (individuals) chose from a bigger populace for an overview. A populace is a gathering of person's people, articles, or things from which tests are taken for estimation, for instance, a populace of presidents or educators, books or understudies. The data collected are checking using Statistical Package for Social Science (SPSS) is used for descriptive analysis. Descriptive statistics can summarize up the samples and measures easily by demonstrating the average number, standard deviation, percentage, and ranking, including graphical reports in the form of charts, graphs, and tables, and the analysis can show workers of HRM for the enterprises play the significance of the problems and roles.

4. Data Analysis and Result

Illustrative measurements are the term given to the examination of information that portrays, appear, or condensed information in a meaningful manner. The information is portrayed through mean and standard deviation. Mean is the normal of things and is figured as the aggregate of all the watched results from the example partitioned by the absolute number of occasions. The standard deviation is a measurement that depicts the measure of variety in a deliberate procedure trademark, and it registers how much an individual estimation ought to be required to go amiss from the mean by and large. Low standard deviation demonstrates that the information focuses are near the method for the set.

Table 1 shows N, percentage and mean of the respondent, age, gender, industry, number of employee, terms of industry, and future of the industry.

4.1. Descriptive analysis: The challenges faced by Human Resources Management

Table 2 shows N, percentage and mean of lack of skilled workforce training. The highest mean is 4.24 which means that most of the rate of production is low when employees misunderstand enough to perform their jobs confidently while the lowest mean is 4.03 which indicates that employees may never develop the skills necessary to take on supervisory positions, executive roles or highly technical tasks.

TABLE 1: Descriptive analysis of Demographics.

		N	%
Gender	Male	4	4
	Female	96	96
Age	18 – 20 years old	10	10
	21 – 30 years old	64	64
	31 – 40 years old	25	25
	41 – 50 years old	1	1
Industry	Automotive	28	28
	Chemical	11	11
	Consulting	20	20
	Electronic	3	3
	Oil & Gas	13	13
	Industries	25	25

TABLE 2: Descriptive analysis – Lack of skilled workforce training.

	Mean
Employees do not understand how to do their jobs and none of these goals are possible when no training.	4.12
The rate of production is low when employees misunderstand enough to perform their jobs confidently.	4.24
Employees who don't receive adequate training may have difficulty meeting performance standards.	4.09
Employees may never develop the skills necessary to take on supervisory positions, executive roles or highly technical tasks.	4.03

TABLE 3: Descriptive analysis – Aging Society Later Retirement.

	Mean
Employees less productive than younger, raising the issue of whether an aging workforce will also be a less productive one.	4.06
Employees don't have knowledge about industry 4.0.	4.18
Employees don't give all hard to learn the knowledge.	4.17
Employees' disability to learn knowledge about industry 4.0.	4.17

Table 3 shows N, percentage, and mean of the aging society later retirement. The highest mean is 4.18 which means that most of the employees do not know the industry 4.0 while the lowest mean is 4.06 which indicates that employees less productive than younger, raising the issue of whether an aging workforce will also be a less productive one.

	Mean
Manager should always update the information of industry4.0.	4.07
Manager should always search information about industry 4.0 from Internet.	4.04
Manager should participate the seminar about industry 4.0.	4.10
Manager should learn the knowledge of industry 4.0and teach the employees	4.09

4.2. Descriptive analysis: Human Resources Management plays the Role

Table 4 shows N, percentage, and mean of HR manager need to digitalize. The highest mean is 4.10 which means that most of the manager should participate in the seminar about industry 4.0 while the lowest mean is 4.04 which indicates that manager should always search information about industry 4.0 from the internet.

TABLE 5: Descriptive analysis – Training Become Customized.

	Mean
Manager should emphasize the real world benefits of your training program.	3.96
Give them control of the online training experience.	3.99
Videos, online presentations, cartoon graphics, and eLearning scenarios are also great ways for training.	4.01
Integrate relatable stories and serious games.	4.03

Table 5 shows N; percentage and mean of training become customized. The highest mean is 4.03, which means that most of the integrate relatable stories and serious games while the lowest mean is 3.96, which indicates that the manager should emphasize the real-world benefits of your training program.

TABLE 6: Descriptive analysis – Fewer Expects Accomplish More.

	Mean
Create a workplace that truly values a balanced relationship between intense work and real renewal	3.99
Separating your work duties from home- related will allow you to keep your mind on work, feel less overwhelmed and accomplish more.	4.04
Establish boundaries and stick to them.	4.01

Table 6 shows N, percentage, and mean of fewer expect to accomplish more. The highest mean is 4.04 which says that most of the separating your work duties from home-related will allow you to keep your mind on work, feel less overwhelmed and accomplish more while the lowest mean is 3.99 which indicates that create a workplace that truly values a balanced relationship between intense action and real renewal

5. Discussion and Conclusion

In this section, the consequence of the ebb and flow research is condensed and examined. The examination was led to investigate the difficulties looked by SMEs towards industry 4.0. As a matter of first importance, selection of Industry 4.0 will result at the end of lower talented occupations through computerization, and the expansion in profitability could result in a general decrease in the number of employment accessible (BRICS ability improvement working gathering, 2016). All the BRICS countries have understood the significance of ability advancement in accomplishing financial development later on and have taken different measures to connect the expertise hole. From expanding instruction use to a growing system of professional mentors by propelling across the nation programs, activities have been propelled to make the work power industry-prepared. In any case, BRICs still face numerous difficulties in the ability advancement of its workforce. Other than that, maturing society later retirement additionally is a serious issue in the selection business 4.0. Malaysia will be a maturing country by 2035 when 15 percent (5.6 million) of the populace is named senior natives. The maturing populace gives not just an effect on the structure plan and structure yet, in addition, the development (Eeydzah, 2017).

Additionally, HR supervisors are relied upon to increase further learning past their HR fill in as to have the option to address the association's issues effectively and desires. This can be viewed as another case of how the desires and requests of HR experts are expanded and have created towards an increasingly vital viewpoint (Camilla and Moa, 2017). Knowing which skills the association will require later on, just as inquiries concerning how and where they will be found and enlisted from, are exceptionally applicable to the present HR supervisors at Digital Solutions. The tweaked preparing projects are intended to advance worker viability, manufacture solid groups and increment organization gainfulness and focused on consumer loyalty and since 1981 have been putting forth programs that exceed expectations in the improvement of individuals (Dalia, 2017).

Advanced change ought not exclusively to be overseen inside the structure of the everyday business except ought to be efficiently incorporated into the organization's methodology. The pioneers among the organizations are as of now doing this, yet most of the Austrian organizations have seen Industry 4.0 fundamentally as an operational theme – additionally dependent on the abbreviated view that advanced change is an absolutely transformative procedure without problematic computerized change into the organization methodology, then again, decreases the danger of operational strides off

course, encourages clear and straightforward correspondence with the representatives, and clarifies that the top administration is tied down.

5.1. Limitation of the study

The study based poll utilized in this exploration was involved 100 things which were dispersed among the specialists of the HRM division. The area picked for my exploration paper is "Perindustrian Rima" which situated at Lahat, Ipoh, and Perak. Furthermore, that spot simply just 50 SMEs. Additionally, laborers of SMEs just a couple of specialists worked in office HRM. In this way, quantitative techniques utilized in this examination where precisely 100 polls to be conveyed among the proper laborers

6. Conclusion

Industry 4.0 is a progressive way to deal with assembling procedures. The idea will push worldwide makers to another degree of streamlining and profitability. That, however, clients will likewise appreciate another degree of by and by modified items that may have never been accessible. As referenced over, the monetary prizes are colossal. In any case, there are as yet numerous moves that should be handled efficiently to guarantee a smooth change. This should be the focal point of huge partnerships and governments alike. Pushing examination and experimentation in such fields are basic. While hypotheses concerning protection, security, and work need more examination, the general picture is promising. Such a way to deal with assembling ventures is genuinely progressive.

References

[1] Understanding the Internet of Things. (2014, July). Retrieved from https://gsm.com/iot/wp-content/uploads/2014/08/CI_iot_wp_07_14pdf

[2] If it's Industry 4.0, then it's HRM 4.0, too. (2017, December 8). Retrieved from https://www.cpm-hrm.be/en-gb/blog/if-it{%}E2{%}80{%}99s-industry-4-0,-then-it{%}E2{%}80{%}99s-hrm-4-0,-too

[3] Academic, I. T. (2015, September 3). How it works: Internet of Things. Retrieved from https://www.youtube.com/watch?v=QSIP NhOiMoE

[4] Ahmad, A. A. (2016, April). Is in the Dawn of Industrial Revolution 4.0 in Malaysia. Retrieved from http://www.myforesight.my/wp-content/uploads/2016/12/

MyForesight_Mag_04-2016_.pdf

[5] Alex. (2017, June). Industry 3.0 vs 4.0 - Vision of the new manuacturing world. Retrieved from https://www.coilwindingexpo.com/berlin/media/Speaker-presentations-2017/Day-3-Alex-West,-Industry-3-0-v-4-0-compressed.pdf

[6] Andreja, R. (2017). Industry 4.0 Concept: Background and Overview. Retrieved from Special Focus Papet: https://doi.org/10.3991/ijim.v11i5.7072

[7] Domingo, E. (2017, Dec 13). The role of HR 4.0. Retrieved from https://www.linkedin.com/pulse/role-hr-40-domingo-erique-grande

[8] Edward,L.(2012,March).Cyber-Physical Systems.howRetrieved from https://ptolemy.berkeley.edu/projects/cps

[9] Geoffroy, D. (2016, June 13). What does the 'Fourth Industrial Revolution' mean for HR. Retrieved from https://www.cornerstoneondemand.co.uk/blog/what-does-fourth-industrial-revolution-mean-hr

[10] Ghaz. (2017, July). Industry 4.0: Are Malaysian SMEs ready? Retrieved from Bizpulse: https://www.smebank.com.my/images/pdf/BizPulse/SME-Bank-BizPulse-Issue-17.pdf

[11] Hitt, M.A. and Robert, E.H. (2015). Industry Life Cycle. Retrieved from Inc. Rising Stars: https://www.inc.com/encyclopedia/industry-life-cycle.html

[12] Jay, L., Behred, B. & Hung, A.K. (2014). A Cyber- Physical Systems architecture for Industry 4.0 - based manufacturing systems. Retrieved from Society of Manufacturing Engineers (SME): http://dx.doi.org/10.1016/j.mfglet.2014.12.001

[13] Lasi, H. Fettke, P. Kemper, H.G., Feld, T. & Hoffmann, M. (2014). Industrie 4.0.

[14] Laura, A. (2016, March 22). Industry 4.0 Semands Modern HR and Talent Management.

[15] Retrieved from https://www.s-ge.com/en/article/news/industry-40-demands-modern-hr-and-talent-manaegement

[16] Lesser, M. (2009). Do Less, Accomplish More. Retrieved from Tricycle: https://tricycle.org/magazine/do-less-accomplish-more/

[17] Martin. (2017, Jan 16). Industry 4.0: Definition, Design Principles, Challenges, and the Future of Employment. Retrieved from Cleverism: https://www.cleverism.com/industry-4-0/

[18] Mayville, L. (2018, March 27). What HR Practitioners Needto Know About Digital HR. Retrieved from Hellosign Blog: https://www.hellosign.com/blog/digital-hr

[19] Mazour, V. (2018, March 1). Digitization of Human Resources: Challenges and Opportunities. Retrieved from eXo: https://www.exoplatform.com/blog/2018/03/

01/digitization-transforms-hr-why-human-resources-needs-to-embrace-digital-transformation

[20] Murray, B.L. & Eric, A. (1997). Movements bandwagons, and clones: Industry evolution and the entrepreneurial process. Retrieved from Journal of Business Venturing: https://doi.org/10.1016/S0883-9026(97)00001-3

[21] Nee, E. A. (2017, October 12). Low awarenes, adoption of Industry 4.0 among Malaysian Manufactures. Retrieved from The Sun Daily: http://www.thesundaily.my/news/2017/10/12/low-awareness-adoption-industry-40-among-malaysian-manufacturers

[22] Ralf, C.S. & Markus, K. (2014). Industry 4.0: Challenges and solutions for the digital transformation and use of exponential technologies. Retrieved from https://www2.deloitte.com/content/dam/Deliotte/ch/Documents/manufacturing/ch-en-manufacturing-industry-4-0-24102014.pdf

[23] Reinhard, Jesper & Stefan. (2015, Sept). Industry 4.0: Building The Digital Enterprise.

[24] Retrieved from https://www.pwc.com/gx/en/industries/industries-4.0/landing-page/industry-4.0-building-your-digital-enterprise-april-2016.pdf

[25] Rubaneswaran, S. (2017, Feb 8). Why Should Malaysia focus on Industry 4.0. Retrieved from Smart investor: http://www.smartinvestor.com.my/why- should-malaysia-focus-on-industry-4-0/

[26] Saqib, S., Shuang, C. Hongnian, Y. & Yun, L. (2016). Management Approaches for Industry 4.0: A human resources maagement perspective. 2016 IEEE Congress on Evolutionary Computation, 5309-5316.

[27] Shiyong, W. (2016). Towards smart factory for industry 4.0: a self-organized multi-agent system with big data based feedback and coordination. Retrieved from Computer Networks

[28] Simon, D. (2016, Aug 15). The 5 Factors of Industry 4.0. Retrieved from https://industrial.iot.com/2016/08/5-factors-industry-4-0/

[29] Stephen, W. (2015). Towards Industry 4.0 -Standardization as the crucial challenge for highly modular, multi-vendor production systems. Retrieved from IFAC - Papers Online: https://doi.org/10.1016/j.ifacol.2015.06.143

[30] Wagner, S. (2017, Sep 29). Why your company needs customized training. Retrieved from University of Southern Indiana: https://www.usi.edu/outreach/engage/2017-archives/why-your-company-needs-customized-training/

[31] West, B. (2018). Work Less, Accomplish More. Retrieved from Monster: https://www.monster.com/career-advice/article/work-less-do-more.