THE FACTORS OF DIGITAL HUMAN RESOURCE MANAGEMENT IN THAI AUTOMOTIVE PARTS MANUFACTURERS

Worapapha Mahasumran, King Mongkut"s University of Technology
Suwatthana Thepchit, King Mongkut"s University of Technology
Preeda Attavinijtrakarn, King Mongkut"s University of Technology
Chaiwichit Chianchana, King Mongkut"s University of Technology

ABSTRACT

The purpose of this research was to study the factors of human resource management based on digital technology of Thai automotive parts manufacturers. The research was conducted by using mixed qualitative and quantitative research approach including the integrated survey model and the exploratory sequential design, along with a semi-structured form for in-depth interviews and a 5-level Likert scale questionnaire. The descriptive data analysis and the exploratory factor analysis were developed by using SPSS. The research results showed that there were 8 factors of human resource management based on digital technology of Thai automotive parts manufacturers. First factor was Digital HRD & Learning consisting of 20 observable variables, the weight of the composition between 0.586-0.799. Second factor was Efficiency of Digital HR in Automotive Parts Industry consisting of 16 observable variables, and a weight of composition between 0.636-0.777. Third factor was Digital PMS consisting of 9 observable variables, with a weight of composition between 0.524-0.676. The 4th factor was Digital Recruitment & Selection consisting of 8 observable variables, with a weight of the composition between 0.533-0.775. The 5th factor was Digital Compensation & Rewarding consisting of 6 observable variables, with a weight of the composition between 0.526-0.617. The 6th factor was Job Interview on Mobile Application consisting of 5 observable variables, with a weight of the composition between 0.567-0.720. The 7th factor was Workforce Analytics consisting of 5 observable variables, with a weight of the composition between 0.511-0.620. And finally, the 8th factor was Performance Analytics consisting of 2 observable variables, with a weight of the composition between 0.547-0.550.

Keywords: Human Resource Management, Digital Technology, Automotive Parts, Factor Analysis

INTRODUCTION

Today's social conditions and situations are changing rapidly as environmental factors are leading a significant shift into the digital economy. Digital economy is the driving force for the reform of manufacturing processes, trade operations, education services, public health, Public administration, as well as other economic and social activities that have an effect on economic development, which is improving the quality of life for people in society, increasing employment and creating added value for productivity under the globalization context. Covering both knowledge economy or "knowledge-based economy" and creative economy or "creative economy", which affects the paradigm or new concept of managing the needs of stakeholders in creating value creation, organizations must be prepared to manage human resources in time and in line with the changes to the digital HR era that requires human resources to be linked.

Knowledge of digital innovation and technology is one that drives business and work by developing the roles and values of human resource services to become strategic partners. Truly, the exponential development of digital technology spreading globally has had a devastating impact on Thai society, creating the phenomenon of "Digital Transformation" and "Internet of Things". In the virtual world, the trend that is strong and gaining attention from around the world has been identified as S-M-I-C, which stands for Social–Mobile–Information–Cloud. In conjunction with smartphone use, social networking such as Line WhatsApp or Instagram, as well as cloud usage in storing both personal and corporate data such as free e-mail, Gmail or Hotmail, the use of popular cloud- based applications such as iCloud and Dropbox, among others, has played a significant impact on everyday life and the functioning of human resources (Veling, Murnane, Carcary & Zlydareva, 2014). With the impact of the Coronavirus Disease which has started in 2019 (COVID-19) and still occurring in the present period, organizations must learn to adapt in order to survive and compete. Therefore, the tools and capabilities within the personnel staff has to be developed continuously for the purpose of reducing the impact of negative changes and enhance the organization‟s competitiveness. Therefore, it is important to be prepared and understand the impact of the situation so that organization can stand firm in the midst of dynamic changes.

Human resources are important administrative resources of the organization because the quality of human resources affects other management drives, such as money, materials, equipment, so the organization's management achieves the highest efficiency, requires and develops human resource management mechanisms that play an extremely important role in managing and developing human resources and organizations to drive progress towards the goals and changes in technology and society by digital human resource management. Digital HR is a method in which organizations adopt modern technologies, known as digital eras, that affect the working environment, work patterns, and behaviors of people to modify human resource management models to enhance human resource management and whole business potential by using social media-related technologies, mobile devices, cloud analysis and computing, also known as SMAC (Sengupta, Lalwani, Goswami & Srivastava, 2020) includes artificial intelligence, large-scale data group analysis, cloud computing, cyber security, the Internet of Things (Sivathanu & Pillai, 2018). The personal data is considered in parallel with the Personal Data Protection Act B.E. 2535 (2009). The PDPA (da Silva, da Luz Scherf, & da Silva, 2020) establishes rules, mechanisms or regulatory measures regarding the protection of personal data that includes the collection, use or disclosure of personal data, preventing confidentiality, integrity, and availability of personal data that are likely to cause negative consequences or damage to individuals or organizations due to technological advances that make things easier to violate personal data and privacy rights.

Thailand has been the world's ranked automotive parts manufacturing base and has always been an important industry for Thailand's economy and partners interested in investing in the production of automotive parts in Thailand of multinational companies are contributing to the export of Thai auto parts (Yongpisanphop, 2019). However, the situation of Thailand's auto parts industry is in the 1-2 period. Last year, the impact and coronavirus 2019 (COVID-19) pandemic has made the purchasing power from customers or consumers to decrease significantly, along with the closure of the global automotive production belt in the first half of 2020, causing the demand for OEM parts to shrink. REM will continue to grow, helping to support entrepreneurial incomes from deteriorating, and in 2021-2022, demand for parts is expected to gradually recover as the economy supports the growth of the automotive parts industry (Industrial Research Division, 2020). In addition, the automotive industry is one of the five first s-curve industries to be empowered in strengthening their 20-year national strategy. The 12th National Economic and Social Development Plan for this reason led Thailand to set out its 2021 automotive industry vision to develop Thailand's automotive industry to excel

2

globally with the production of environmentally friendly vehicles. Therefore, amid the changes in the socioeconomic and technological sectors, Thai auto parts industry entrepreneurs should be more aware of human resource management by relying on digital technology because an efficient and consistent human resource management will support the organization to drive towards its goals and success.

Objective: To study the components of human resource management based on digital technology of Thai auto parts manufacturing enterprises.

LITERATURE REVIEW

The human resource management concept, based on the meaning of human resource management, refers to the process of practice involving human resources at all levels in the organization to be effective, knowledgeable, ready to support change and competition with various technologies and sciences to enable the organization to achieve its goals with human resource planning activities, recruitment, selection, training and development (Kaplan & Norton, 2001). Performance evaluation, payroll management and welfare treatment are carried out until the personnel retires or leaves the job position (Dessler & Varrkey, 2005). In the operation of every organization, every department requires human resources. It is an important resource that creates a competitive advantage for organizations in competitive situations and is constantly changing, requiring an understanding of the concept of human resource management in each perspective or in each human resource management model so that human resource management can be properly integrated into the organization's environment and strategy with the concept of human resource management in the manner of two groups of thinkers, the subjects of the U.S. Thinkers Group (America Model) (Analoui, 2017). These include the Harvard Model of Human Resource Management (HRM) or the "developmental humanism" model (Beer, 2015), Michigan Human Resource Management Model (Michigan Model of HRM), or the model of "Managerialism" (Ivo, 2006), and model of a group of thinkers in the UK (British Model) ((Jackson, 2014) including the Warwick human resource management model ((Andalib, Darun & Azizan, 2019). With regards to the challenging role of HR today and in the future, HR must be able to create and deliver value to the organization and be able to link the work of the organization to the organization's business and various change (Ulrich, 1997). Human resource management departments should be more proactive. (Ulrich, Younger, Brockbank & Ulrich, 2012). In addition, human resource managers must play a key role in four areas: Strategic Partner, Change Agent, and Administrative Expert, and the role of winning employees' hearts by being an Employee Champion (Ulrich, 1996).

The digital economy concept is about using information technology to enhance efficiency and create value for the gross productivity of the Internet, change the way the business is conducted, requiring IT infrastructure, setting out the rules and laws, providing effective management, as well as having people making adjustments and displaying a strong attitude in carrying out their assigned tasks (Tapscott, 1996). As a result, all industry sectors have accelerated the adjustment of the approach to business management in order to keep pace with rapid changes by digital economy policies. The digital economy should promote and support the private sector as a product and service creator, increasing sustainability in the long run as the global and Thai communication technology changes have evolved exponentially, creating the "Digital Transformation" and "Internet of Things" phenomenon in the virtual world and a trend that has gained worldwide attention by identifying S-M-I-C, which stands for Social–Mobile–Information–Cloud (Veling et al., 2014)

Digital HR is a way for organizations to adapt their human resource management model to work digitally based on new technology tools or applications to continuously solve problems and innovate. This includes creating changes in human resources and data-based decision-

3

making to ensure the efficiency of the organization, integrating human resource activities with real-time basic businesses, and real-world outcomes (Walsh & Volini, 2017).

Exploratory Factor Analysis is a statistical technique for multivariate analysis for inferring details of multiple variables. It''s also known as a technique used to reduce the number of variables by studying the relationship structure of variables and to create a new variable called "Elements" in which the elements created are the combination of variables that are closely related or have high synergies together into the same element, whereas the variables that are in different components will have little or no relation at all. By analyzing exploratory factor analysis to study common elements that can describe the relationship between variables, where the number of common elements obtained is less than the number of variables, it is known which elements are available (Fabrigar & Wegener, 2011).

METHODOLOGY

The populations used in this research were executives, supervisors and human resource managers (employees) of 1,098 Thai auto parts manufacturing enterprises (Department of Business Development, 2019). The sample group in this research was the executives, supervisors, human resource management personnel of Thai auto parts manufacturing enterprises. The sample size determination was carried out according to the principle of statistical analysis of the components of the Comrey and Lee (Comrey & Lee, 2013) with a total of 450 people by applying the multistage randomization sampling method.

The tools used in the quantitative research collection are a survey of the development of human resource management models based on the digital technology base of Thai auto parts manufacturers which consists of four parts: Part 1, information about the 8 number of respondents. Part 2, questionnaire on human resource management based on digital HR, and part 3, a questionnaire on human resource management efficiency based on digital technology, which is a 5-level Likert rating scale (Harpe, 2015) 81 items were interpreted by the average obtained according to the „Best" criteria (Pichai, Paet & Sopon, 2019). And for part 4, the comments and recommendations for the development of a digital resource management model performed quality check were done by five experts considering the content fidelity, finding a conformity index (IOC) of between 0.60-1.00, and then conducting questionnaires created and passed. A tryout with 30 non-actual samples was done to check the reliability by determining Cronbach's Alpha Coefficient to be at 0.99.

Review respondents' preliminary data by using frequency and percentage statistics (Pecentage), analyzing the level of opinions about human resource management on a digital HR basis and opinion levels on human resource management performance on a digital technology basis, and using descriptive statistics, including mean, deviations, and other factors. Measures of Skewness and Kurtosis are used with computer prefabricated programs and Exploratory Factor Analysis (EFA) for examining the suitability of data by finding the

Kaiser-Myers-Alkin index (Kaiser Meyer Olkin: KMO). The Barlettett's Test of Sphericity, which measures the suitability of sample data was used to analyze elements by determining the weight or relation rate of each variable within the element. Then check by considering the variance of each variable by considering the communality value, which should not be lower than 0.50, and if it is below 0.50, the variable should be eliminated from the element analysis. And consider the elements using the following number of element assignment criteria: Eigen Value must be greater than 1 percentage of accumulated variance greater than 60%, Factor Loading is greater than 0.3, and each element must have two or more observable variables (Yong & Pearce, 2013).

RESEARCH OUTCOMES

The results of the surveyal composition analysis on the elements of human resource management on the digital technology base of thai auto parts manufacturer establishments by researchers used a total of 81 variable data to examine the suitability of factor analysis techniques with Kaiser-Meyer-Olkin (KMO) and Bartlett's Test as shown in Table 1.

Table 1 MEASURING THE SUITABILITY OF HUMAN RESOURCE MANAGEMENT ON THE DIGITAL TECHNOLOGY BASE OF THAI AUTO PARTS MANUFACTURERS		
KMO & Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.959
Bartlett's Test of Sphericity	Approx. Chi-Square	47621.638
	df	3240
	Sig.	0.000

According to Table 1, the results of the data analysis were KMO of 0.959, which is greater than 0.50, and approaching value 1, it concluded that all 81 variables were suitable to use factor analysis techniques that are elements of human resource management on the digital technology base of the parts manufacturer establishment. Bartlett's Test has an approximate chi-square distribution=47621.638, with Significance=0.000, which is less than 0.05, meaning that all variables are correlated enough to analyze factors (Yong & Pearce, 2013). Then find communality, the correlation coefficient between one variable and the rest of the variable, between 0 and 1 of the variable (0<coefficient<1). If the joint value=0 indicates that the variable cannot describe its variance. The Initial Communality value from the main extraction method determines that the Initial Communality value of all variables is 1. After extracting the factors, extraction communality values of all 81 variables were higher than 0.50, 81 of which were between 0.694-0.862, so they were appropriate to be classified as one of the factors and determine the total variance explained to see the group's adhesion by selecting the factor. In conjunction with the rotation of the perennial axis by criteria, the factor must have an Eigenvalue of 1.00 or higher and each variable in the factor loading must be 0.50 or higher, which can be grouped into the 2nd and 3rd tables.

Table 2 STATISTICS FOR EACH FACTOR BEFORE AND AFTER THE EXTRACTION OF HUMAN RESOURCE MANAGEMENT ON THE DIGITAL TECHNOLOGY BASE OF THAI AUTO PARTS MANUFACTURERS									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	45.432	56.088	56.088	45.432	56.088	56.088	17.245	21.290	21.290
2	4.745	5.858	61.947	4.745	5.858	61.947	14.014	17.301	38.592
3	3.557	4.392	66.338	3.557	4.392	66.338	7.280	8.987	47.579
4	2.301	2.841	69.179	2.301	2.841	69.179	6.872	8.484	56.063
5	1.864	2.301	71.481	1.864	2.301	71.481	5.368	6.627	62.691
6	1.624	2.005	73.485	1.624	2.005	73.485	5.323	6.571	69.262

7	1.538	1.899	75.385	1.538	1.899	75.385	3.985	4.919	74.181
8	1.284	1.585	76.969	1.284	1.585	76.969	2.100	2.592	76.773
9	1.058	1.306	78.276	1.058	1.306	78.276	1.217	1.502	78.276

Table 2 shows statistics before and after factor extraction by means of extraction, the main factors from the analysis can be classified as 9 elements, all elements have a variance of more than 1 percent, variance between 21.290-78.276 and cumulative variance percentage of 78.276.

<table>
<tr><td colspan="9">Table 3
FACTOR LOADING OF EACH VARIABLE WITH THE HIGHEST VALUE IN HUMAN RESOURCE MANAGEMENT ON THE DIGITAL TECHNOLOGY BASE OF THAI AUTO PARTS MANUFACTURERS</td></tr>
<tr><td></td><td colspan="8">Component</td></tr>
<tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr>
<tr><td>HR413</td><td>0.799</td><td rowspan="20">Digital HRD & Learning</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR414</td><td>0.796</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR415</td><td>0.79</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR418</td><td>0.785</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR46</td><td>0.783</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR47</td><td>0.779</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR416</td><td>0.776</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR412</td><td>0.775</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR411</td><td>0.769</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR419</td><td>0.768</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR417</td><td>0.763</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR420</td><td>0.761</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR45</td><td>0.759</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR48</td><td>0.753</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR44</td><td>0.748</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR410</td><td>0.747</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR49</td><td>0.728</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR43</td><td>0.724</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR42</td><td>0.631</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>HR41</td><td>0.586</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>DHR18</td><td></td><td>0.777</td><td rowspan="10">Efficient of Digital HR in Automotive Parts Industry</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>DHR15</td><td></td><td>0.773</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>DHR110</td><td></td><td>0.766</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>DHR112</td><td></td><td>0.762</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>DHR17</td><td></td><td>0.757</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>DHR115</td><td></td><td>0.755</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>DHR116</td><td></td><td>0.75</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>DHR19</td><td></td><td>0.738</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>DHR113</td><td></td><td>0.733</td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

Citation Information: Mahasumran, W., Thepchit, S., Attavinijtrakarn, P., Chianchana, C., (2021). The Factors of Digital Human Resource Management in Thai Automotive Parts Manufacturers. *Journal of Management Information and Decision Sciences 24*(S1), 1-17.

DHR13	0.73					
DHR111	0.728					
DHR16	0.722					
DHR14	0.711					
DHR114	0.692					
DHR12	0.642					
DHR11	0.636					
HR214		0.68	Digital PMS			
HR24		0.65				
HR25		0.63				
HR26		0.61				
HR23		0.6				
HR27		0.6				
HR28		0.58				
HR213		0.57				
HR212		0.52				
HR112			0.775	Digital Compensation & Rewarding		
HR18			0.664			
HR117			0.647			
HR29			0.642			
HR19			0.637			
HR115			0. 593			
HR116			0.577			
HR215			0.533			
HR34				0.62	Job Interview on Mobile Application	
HR37				0.59		
HR36				0.58		
HR35				0.57		
HR33				0.57		
HR38				0.53		
HR110					0.72	Workforce Analytics
HR113					0.685	
HR111					0.628	
HR114					0.612	
HR119					0.567	
HR15						0.62
HR14						0.62
HR16						0.58
HR13						0.54
HR17						0.51
HR118						0.55
HR210						0.55

According to Table 3, based on the weight of the factors, all variables are grouped into 8 elements, which can explain the variability of 74.341% of variables, and can summarize the results of the analysis of survey elements on the development of human resource management models on a digital technology base in Thai automotive parts manufacturers as follows:

Table 4
SUMMARY OF SURVEY ELEMENTS ANALYSIS ON HUMAN RESOURCE MANAGEMENT ON THE DIGITAL TECHNOLOGY BASE OF THAI AUTO PARTS MANUFACTURING ESTABLISHMENTS

Composition	Name of Element	Number of Variables (Items)	Eigen Value	Factor Weight Value	Variable variance (Percentage)
1	Digital HRD & Learning	20	45.432	0.586 - 0.799	21.290
2	Efficient of Digital HR in Automotive Parts Industry	16	4.745	0.636 - 0.777	38.592
3	Digital PMS	9	3.557	0.524 - 0.676	47.579
4	Digital Recruitment & Selection	8	2.301	0.533 - 0.775	56.063
5	Digital Compensation & Rewarding	6	1.864	0.526 - 0.617	62.691
6	Job Interview on Mobile Application	5	1.624	0.567 - 0.720	69.262
7	Workforce Analytics	5	1.538	0.511 - 0.620	74.181
8	Performance Analytics	2	1.284	0.547 - 0.550	76.773

According to Table 4, it is concluded that the elements of human resource management on the digital technology base of thai auto parts manufacturers are summarized. There are 8 elements as follows: Element 1 Digital HRD & Learning (Eigen 45.432 and Weight Factor between 0.586-0.799). Element 2 Efficient of Digital HR in Automotive Parts Industry (Eigen 4.745 and Weight Factor between 0.636 - 0.7 77). Element 3 Digital PMS (Eigen 3.557 and Weight Factor between 0.524 - 0.676). Element 4 Digital Recruitment & Selection (Eigen 2.301 and Weight Factor between 0.533 - 0.775). Element 5 Digital Compensation & Rewarding (Eigen 1.864 and Weight Factor between 0.526 - 0.617). Element 6 Job Interview on Mobile Application (Eigen 1.624 and Weight Factor between 0.567 - 0.720). Element 7 Workforce Analytics (7 Workforce Analytics) (Eigen 1.538 and factor weight between 0.511 - 0.620), and element 8 Performance Analytics (Eigen 1.284 and factor weight between 0.547 - 0.550) which can explain variable variations of 76.773%.

DISCUSSION AND CONCLUSION

The results of the study of elements of human resource management on the digital technology base of 8 Thai auto parts manufacturer establishments show data in line with the Harvard human resource management concept (Harvard Model of HRM) (Beer et al., 1984;

Cited in Armstrong, 2009). This states that the management of human resources must be consistent with technological changes, human resource management activities must engage with the organization's information and digital technology in activities related to encouraging employees to have the same skills, knowledge, capabilities, changes and engagement of human resources with the organization, creating motivations that contribute to better quality and workload, affecting the efficiency of organizational management and human resource management, which is demonstrated in this study in element 2 Efficient of Digital HR in Automotive Parts Industry, and promoting employee participation. In addition, the findings from this study are consistent with (Sriakaralarp & Konglai, 2016). That said, social media technology is one of the key drivers of communications that plays an important role in rapid network expansion, and Facebook allows employees to communicate their opinions and feelings for human resource management activities, as well as technology that can strengthen the relationship between employees and organizations, and reducing time and complexity of work are in line with a study done by (Maria, 2020) That said, digital technology is increasingly important for human resource management functions as it can reduce the complexity of work quickly, promote the use of information to the maximum benefits of decision-making, strengthen the image available to organizations, reduce costs in resource management operations, and incentivize attracting qualified applicants to apply for jobs with organizations, thus promoting the organization's operations to achieve its goals, and enhancing competitive advantages, which is in line with the work of (Akshay & George, 2017) That said, in an era of technological growth, the Human Resources Department can leverage data by collecting, storing, improving and interpreting data for decision-making and weakening cost factors from technologies used in human resource management (Michigan Model of HRM) (Ivo, 2006). It states that there are four processes in human resource management: recruitment, selection, performance appraisal, compensation and reward management, and development training, as demonstrated in the results of this study in the Digital HRD & component. Learning addresses the common elements of the development and training process, including management, development, personnel training, exploration and analysis of needs or needs, development and training planning, program notification, development and training, clarification of guidelines. In evaluating training development as well as monitoring the evaluation of training development using digital technology, the findings from this study were consistent with (Mohan, 2019) That said, AI tools can help employees develop their careers, with various learning and training programs helping to increase employee productivity and job satisfaction and also be consistent with (Maditheti, 2017) who stated that digital technology allows human resource development agencies to effectively train new employees and their ability to access company data and training programs from various locations, as well as virtual classroom training, thus allowing human resource development agencies to train large numbers of employees quickly and being able to assess the progress from employee training through computer testing programs. The digital PMS elements address the common elements of the performance evaluation process and the performance analytics elements address the common elements of performance evaluation analysis, including performance evaluation notifications, the opportunity for employees to participate in performance evaluations. Clarification of the policy, criteria, date, evaluation of performance, performance evaluation, evaluation report, evaluation analysis and management of assessment results using digital technology. The findings from this study are consistent with (Maditheti, 2017) who claimed that technology with performance management functions allows HR to assess employee performance and receive feedback from employees to improve the organization. The Digital Recruitment & Selection component addresses the common component of the Human Resources recruiting and selection process and the Job Interview on Mobile Application component addresses the common component of job interviews where organizations should increase the scheduling channels for job interviews. Checking job applicant

qualifications, initializing job interviews, testing your knowledge, abilities, aptitude, attitude, and personality, and informing the results of personnel selection are done with the application of digital technology. The findings from this study are consistent with (Amla & Malhotra, 2017). It has been found that many organizations use AI (Artificial intelligence) or artificial intelligence. In the process of screening candidates, interviewing and selecting talent suitable for positions, duties and organizations, and digital technology allows organizations to quickly and easily access applicants, as well as attract more diverse and competent applicants (Maditheti, 2017). That said, digital technology enables the recruitment process to quickly range from planning, recruiting, recruiting, hiring, and providing the best knowledgeable people to the organization. The digital compensation & rewarding elements discuss the common elements of the compensation and award management process, including job valuations, compensation calculations, compensation payments and paid benefits, as well as payroll surveys. Using digital technology, the findings from this study are consistent with (Amla & Malhotra, 2017) That said, Artificial Intelligence (AI) technology can help with data processing. Data collection, reporting, data integrity, email processing, and data entry into payroll systems effectively result in more effective employee communication. In addition, digital technology comes with a unique design and its implementation leads to better results. The Workforce Analytics component addresses a common component of collecting, analyzing, and analyzing workforce rate data using digital technology (Akshay & George, 2017) That said, Big Data Analytics plays an important role in organizational management and decision making. Effective data analysis can lead to effective assessment of employee performance and (Maria, 2020) it's said that digital human resource management data results in efficient planning of human resources.

However, the findings continue to contain findings in the human resource management process in addition to the concept of the Michigan Model of HRM (Ivo, 2006). Findings that differ from the results of the study by (Amla & Malhotra, 2017) about digital technology used as a tool for recruiting, selecting and interviewing employees (Kanchan & George, 2017) and this may be due to studies in different contexts and samples or occurring in different time periods.

FUTURE RESEARCH

For the next study, research should be conducted with other demographic groups, including comparisons on the value of investment in digital technology in human resource management, digital technology cost analysis, return of investment in digital technology, and with human resource management or other task areas where digital technology will be implemented. Also, the study of the competencies of human resources and personnel in the digital technology era for the preparation of knowledge skills, the ability to use digital technology will be included, since human resources are the most important administrative resource of the organization, resulting in the success of the highest goals and efficiencies for the organization.

RESEARCH IMPLICATIONS

Business organizations in the automotive industry and auto parts manufacturing can apply the research results to formulate a human resource management guidelines based on digital technology as a strategy for effective human resource management in accordance with the changes in technology and society, and creating competitive advantages in both the short and long term, for defining it as a key indicator of the organization's human resource management performance (Core KPIs or OKR) which includes preparation, planning, preparation and development of skills, knowledge, and ability in using digital technology of human resource management departments related to departments and personnel at all levels in the organization

to achieve management efficiency. But in order to get the most efficiency from this research, the researcher would like to offer additional opinions in the period before applying the research results to the application of human resource management based on digital technology. Cost analysis should be done, along with estimating the cost-effectiveness of investing in digital technology for the applications in that field.

REFERENCES

Akshay, K., & George, S. (2017). A study on the impact of digitization on Human Resource (HR) functions: HR professionals'perspective.

Amladi, P. (2017). HR‟s guide to the digital transformation: Ten digital economy use cases for transforming human resources in manufacturing. *Strategic HR Review*.

Analoui, F. (2017). *The changing patterns of human resource management*. Routledge.

Andalib, T.W., Darun, M.R., & Azizan, N.A. (2019). East Asian trends of human resource management: theories and practices. *International Journal of Human Resources Development and Management, 19*(2), 135-149.

Basto, M., & Pereira, J.M. (2012). An SPSS R-menu for ordinal factor analysis.

Beer, M. (2015). HRM at a crossroads: Comments on "evolution of strategic HRM through two founding books: A 30th anniversary perspective on development of the field". *Human Resource Management, 54*(3), 417-421.

Comrey, A.L., & Lee, H.B. (2013). *A first course in factor analysis*. Psychology press.

da Silva, M.V.V., da Luz Scherf, E., & da Silva, J.E. (2020). The right to data protection versus "security": Contradictions of the rights-discourse in the brazilian general personal data protection act (LGPD). *Revista Direitos Culturais (Cultural Rights Review), 15*(36).

Dessler, G., & Varrkey, B. (2005). *Human resource management, (15th edition)*. Pearson Education India.

Fabrigar, L.R., & Wegener, D.T. (2011). *Exploratory factor analysis*. Oxford University Press.

Harpe, S.E. (2015). How to analyze Likert and other rating scale data. *Currents in pharmacy teaching and learning, 7*(6), 836-850.

Industrial Research Division. (2019). The impacts of "COVID-19" pandemic on the automotive industry. Automotive Navigatior Magazine, Jul - Sep 2020. [Online].

Inthapichai, S., Wisuttipaet, S., & Boonyasopon, T. (2019). A study on knowledge and skills essential for work safety in automotive factories. *The Journal of Industrial Technology, 15*(2), 87-96.

Ivo, A.M. (2006). *Best perspectives to human resource management*. African Centre for Community and Development.

Jackson, T. (2014). *International HRM: A cross-cultural perspective*. Routledge.

Kaplan, R.S., & Norton, D.P. (2001). The strategy-focused organization. *Strategy and Leadership, 29*(3), 41-42.

Maditheti, N.N. (2017). A comprehensive literature review of the digital HR research filed. *Organization, 7*(4).

Mohan, R. (2019). The chat bot revolution and the Indian HR professionals. *International Journal of Information and Computing Science, 6*(3), 489-499.

Mosca, M. (2020). *Digitalization of HRM: A study of success factors and consequences in the last decade*. University of Twente.

Sengupta, A., Lalwani, S., Goswami, S., & Srivastava, P. (2020). Reinventing HR functions with SMAC technologies-an exploratory study. *Materials Today: Proceedings*.

Sivathanu, B., & Pillai, R. (2018). Smart HR 4.0–how industry 4.0 is disrupting HR. *Human Resource Management International Digest.*

Sriakaralarp, W., & Konglai, C. (2016). Human resource management in the information age organization, step through the new era of orgnization. *Veridian E-Journal*, Silpakorn University (Humanities, Social Sciences and arts), *9*(2), 1901-1911.

Tapscott, D. (1996). The digital economy: Promise and peril in the age of networked intelligence, *1*, McGraw-Hill New York.

Ulrich, D. (1996). *Human resource champions: The next agenda for adding value and delivering result*s. Harvard Business Press.

Ulrich, D. (1997). Human resource champions. The next agenda for adding value and.

Ulrich, D., Younger, J., Brockbank, W., & Ulrich, M. (2012). HR talent and the new HR competencies. *Strategic HR Review, 11*(4), 217-222. doi: 10.1108/14754391211234940

Veling, L., Murnane, S., Carcary, M., & Zlydareva, O. (2014). The digital imperative. IVI White Paper Series.

Walsh, B., & Volini, E. (2017). Rewriting the rules for the digital age: 2017 Deloitte global human capital trends.

Yong, A.G., & Pearce, S. (2013). A beginner‟s guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in quantitative methods for psychology, 9*(2), 79-94.

Yongpisanphob, W. (2019). Industry Outlook 2019-2021: Auto Parts Industry. Krungsri Research. [Online]