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# HR Development Strategy in The Industrial 4.0 Revolution in The Pandemic Of Covid-19

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#### **ABSTRACT**

The era of the industrial revolution 4.0 is an absolute and unavoidable phenomenon in the business world. The survival of a company depends on the strategy devised to be able to carry out transformation and innovation to deal with it. So that companies and businesses that have been built are not crushed by the times and are hampered by their development, the company must be responsive to existing changes, especially with the development of technology and digital business. The company must also have an integrated travel map so that the direction of business development is clearly visible. The Covid-19 pandemic has changed many things of life in an instant. Never before in modern human history has a pandemic progressed and spread rapidly like Covid-19. Therefore, every event, response, and reaction is also oftentimes good. It happens at the individual level, the smallest community, up to the State and nation. Organizations and corporations are also forced to adapt quickly to very high levels of uncertainty. With the incessant change of life lines into all-digital. Therefore, companies really need to prepare reliable human resources and technology literacy in order to continue to achieve success. Employees should be supported and encouraged to continue learning and increase their knowledge of technology. Because the workforce or human resources who are able to apply and control technology in the present are able to move forward. This study aims to analyze the effect of human resource competence and the use of information technology in the Industrial Revolution Era 4.0 during the co-19 pandemic. In this study using the theory of Computer Mediated Communication (CMC) to examine more in how the process of forming HR groups in the advertising agenda through digital media and also the process of interaction developed by the HR groups. The method in this study uses a qualitative research method with a Case Study approach and the paradigm used is the constructivist paradigm, which is to examine how the interaction and role of HR in the interaction and communication groups in the online media. In this study trying to identify the personalities of each grouped as tourists, mingles, and devotes. Data collection is done by using observation and also conducting in-depth interviews. In addition, the data analysis technique used is to use a flow model from Miles and Huberman consisting of 3 stages, namely Data Reduction, then the presentation of data, and drawing

Keywords: CMC, Covid-19, The Fourth Industrial Revolution, Human Resource Development.

## **INTRODUCTION**

Currently the community is entering the industrial era 4.0 and requires superior and reliable Human Resources (HR) in accordance with the needs of the Business and Industrial World (DUDI). Therefore, vocational education and training is important to carry out. The era of the 4.0 generation industrial revolution can be felt by the increasing interaction of humans

with information technology in the form of the development of digitizing systems, artificial intelligence that increases virtually.

The human, machine and other resources are increasingly centralized. Information and communication technology has an impact on other sectors of life. Advances in information technology also impacted the special education sector in the Covid-19 pandemic era. As we have seen together with the closing of formal and informal schools ranging from early childhood education (PAUD), kindergarten, elementary school to high school or college, the education process can only be done at home using the learning method online or online. This change in online teaching and learning methods cannot be avoided by any party. Educational stakeholders ranging from teachers, students, parents of students, the school is asked to prepare qualified human resources (HR) in order to carry out this educational process. The quality of human resources must be improved through education where this quality improvement is the key to having competence in following the development of the 4.0 industrial revolution.

Related to the business sector, the era of the industrial revolution 4.0 is an absolute and unavoidable phenomenon in the business world. The survival of a company depends on the strategy devised to be able to carry out transformation and innovation to deal with it. So that companies and businesses that have been built are not crushed by the times and are hampered by their development, companies must be responsive to existing changes, especially with the development of technology and digital business. The company must also have an integrated travel map so that the direction of business development is clearly visible.

The Covid-19 pandemic has changed many things of life in an instant. Never before in modern human history has a pandemic taken place and spread rapidly like Covid-19. Therefore, every event, response, and reaction is often also of an unprecedented nature. Well it happens at the individual level, the smallest community, to the state and nation. Organizations and corporations are also forced to adapt quickly to very high levels of uncertainty.

Incessant changes in life lines to be all digital. Therefore, companies really need to prepare reliable human resources and technology literacy to keep achieving success. Employees should be supported and encouraged to continue learning and increase their knowledge of technology. Manpower or human resources who are able to apply and control technology in the present are able to move forward. This requires that human resources are not only smart in utilizing the existing situation, but also prioritizing the speed in adapting to technology in accordance with their capacity and also the speed in accessing digital technology networks.

The government has established the road map Making Indonesia 4.0 as a strategy to implement the 4.0 industrial revolution while bringing Indonesia into the top 10 of the world economy by 2030. Large population, supported by infrastructure development and human resources (HR) can be an important capital to carry out the industrial revolution 4.0. Strengthening human talent is the key to the progress of the business world in Indonesia and the application of industry 4.0. The government is increasingly keen to build infrastructure which will later be continued on human resource development. Indonesian human resources must master the languages of new technology. According to data from the 2012 McKinsey Global Institute, Indonesia will become the 7th largest economy in the world. Indonesia needs around 17 million workers who are literate in digital technology by 2030. Therefore the opportunities in the business sector are so wide and the government continues to try to socialize to various industrial sectors so that the products produced are able to compete in this 4.0 industrial era.

Human Resource Development in the era of the industrial revolution 4.0 during the epidemic covid-19 faced various challenges faced, not only qualified human resources in the mastery of science and technology, equipment or tools that must be complete, but the greater challenge was the spread covid plague - 19, where all the joints of life as if slowly starting to occur delays even tend to stagnate if not responded to with innovative thinking in the business field. In the midst of the rampant public life because of the spread of the coronavirus.

The virtue of Computer Mediated Communication (CMC) basically refers to human communication achieved through, or with the help of computer technology. As the definition stated by Gerry Santoro (1995) in Thurlow, Lengel and Tomic (2004) explains "In general, CMC can cover almost all computer uses including various applications such as statistical analysis programs, remote sensing systems, and financial modeling, all of which are appropriate with the concept of human communication." (Thurlow, Lengel, and Tomic, 2004).

John December (1997) defines Computer Mediated Communication is the process of human communication through computers, involving people, being in a particular context, involved in the process of forming media for various purposes. While Susan Herring (1996) said that CMC is communication that occurs between humans through computer instruments. The focus emphasized on research, refers to the CMC theory, namely online communities and their context on Organizational Communication.

The process of human communication through computers, involving people, being in a particular context, involved in the process of forming media for various purposes. Some core concepts in Computer Mediated Communication Theory include: (Thurlow, Lengel, and Tomic, 2004). at CMC, communication is seen in 4 characteristics, including communication that is dynamic, transactional, multifunctional, and multimodal (Thurlow, Lengel, and Tomic, 2004). Transactional nature. Communication about negotiating meaning between people. Individuals both the speaker and the listener and this role is repeated every time in conversation with each other.

Is multifunctional. Communication can be used to influence people's behavior or attention, inform people, find information, give control over others, make friends or seduce people, to entertain and please others, and so on. Multimodal in nature. Verbal messages are always packed with other messages (or 'metamessages') that are formed by various ways of making meaning - commonly called nonverbal communication modes.

Medium as a process or means by which something is transmitted through its message. Therefore, communication is mediated through our interactions with people and by means of a number of different verbal and nonverbal modes. CMC limits the meaning of technology as a machine that is designed, built and used for the exchange of information and communication. This is commonly referred to as' Information and Communication Technology (or ICT).

Almost all activities both work and education currently involve computers as work tools, and as a result, almost everything we do is in some way or mediated by other computers. Computers do not have to be translated as devices like PCs or laptops, but computers can be meaningful as a computerized system of several devices.

New Media (new media), which began to develop from the 20th century until this century, continues to demand and spur organizations to be able to follow the existence of new media and to recognize the types of media and trends that are being developed. The media closest to the younger generation is digital communication technology-based media, especially the internet.

Internet-based social media, including Facebook, Twitter, Path, Instagram, etc., are designated as "new" media, becoming new players as well as new powerhouses leaving "old" media (newspapers / magazines, radio and television). Young generation in this case is a carrier of change at the local, national and global levels in the political, social and cultural fields.

This new media has made almost everyone, especially the younger generation, to become journalists, preachers, teachers, opinion makers and "content providers" who can publish and disseminate their ideas quickly. "New individual content providers have become" strengths new "through social media. The "new" media has developed rapidly with unceasing growth and influence in ideology, politics, social and economics in the world. Technology and democracy have a big influence on the way people communicate. Technology has made messages arrive at their destination easily (cheaper and faster). (Athique, 2013).

Not surprisingly, in recent years, various developments have taken place which are quite amazing, especially in the field of technology, especially in terms of information and communication, the other hand, due to the development of technological capabilities, there has also been a quite dramatic change in the side of business travel and operations, which resulted in new services, including in the case of the utilization of a world network without limits. In general, new media have been welcomed (also by old media) with strong, positive interest, and even euphoric expectations and forecasts, and excessive estimates of their significance.

The most fundamental aspect of information and communication technology (ICT) is perhaps the fact of digitalization, the process by which all texts (symbolic meanings in recorded and encoded form) can be reduced to binary code and can undergo the same production, distribution and storage processes. The most famous potential consequence of media institutions is the convergence of all forms of media in relation to their regulation, distribution, acceptance and regulation. Attempts to characterize new media, especially as symbolized by the internet, have been hampered by the diversity of uses and surveillance as well as their future uncertainties. Computers that are applied to communication have produced many possible variants, none of which are dominant. (Gora, 2019).

The difference in new media from old media, according to Poster in McQuail, can be detailed as follows: Enabling conversations between many parties, allowing simultaneous acceptance, change and re-spread of cultural objects, interfering with communication actions from important positions, from territorial relations of modernity, provides instant global contact, inserting modern / final modern subjects into networked apparatus machines. (McQuail, 2010).

The study of the development of telematics technology becomes very urgent, especially related to the development of new media, because it not only concerns the economic bases that need to be prepared, but the most important is how the social construction of mass media contributes to human life as a whole. The main changes related to the emergence of new media, namely digitalization and convergence on all aspects of media, increased interactivity and network connectivity, mobility and delocation to send and receive, adaptation to the publication and public order, the emergence of various new forms of 'doors' (gateways) ) media, Separation and obfuscation from 'media institutions'. In addition, organizations also need to build connectivity.

Here it can be seen as a manifestation of the development of a new media era to blend in perspective society more closely, especially with the development of Information and Communication Technology (ICT), any organization no longer stands above the conventional media order, and must dare to turn to the transformation of the digital media era. More sophisticated technology makes communication easier, faster and cheaper. Without technology and democracy, communication will be difficult, and prevent ideas from appearing. (Flew, 2014).

Human Resources should be involved in matters of management success and pay attention to the competitiveness of management and adapt to changes in the market, and many other issues involved by identifying how it can help in increasing organizational productivity, helping to handle foreign competition effectively, or increase innovation in organizations. This kind of thinking shows the existence of strategic thinking. Strategic HR Management is about using employees organizationally to gain or maintain competitive advantage against competitors. (Mathis & Jackson, 2006).

People can become an organizational core when they have the special ability to make decisions and innovate in ways that are not easily emulated by competitors. To have that ability requires good employee selection, training and retention. This group of employees without special abilities cannot be a strong basis for competitive advantage. (Mathis & Jackson, 2006). Productivity at the organizational level will ultimately affect profitability and competitiveness in a profit organization, and the total costs in a nonprofit organization. Decisions made about the value of an organization are often based on the productivity it can achieve.

### **METHODS**

The method used in this literature study uses observational studies and also data collection in the form of in-depth and structured observations. In this literature study using data validity techniques through data quality, and transferability. Besides collecting data through book literature as well as forms of documentation through print and online mass media, as well as observing reading data from each secondary data. In addition, data collection is carried out by the process of coding data to select data in the form of themes raised in the study of the literature, by gathering competent literature and referring to the source of the data.

The paradigm used in this research is the constructivist paradigm. Constructivism adopts relativists (ontology relativism), transactional epistemology, and hermeneutical or dialectical methodology. The research objectives of this paradigm are aimed at generating various reconstruction understandings in which the traditional positivist criteria for internal and external validity are replaced by terms of trustworthiness and authenticity (Liliweri, 2018)

This constructivist is also understood as part of the Interpretive Social Sciences (ISS) which uses a Constructionist Orientation which assumes that people shape the reality of their interactions and beliefs and the meanings created and used by humans that fundamentally shape reality for them. This Interpretive Social Science is closely related to hermeneutics which emphasizes the effort to read texts that are very close and detailed to gain an in-depth understanding. (Neuman, 2015)

The research method used in this study is a qualitative research method with descriptive research type. Descriptive method is a method in examining the status of a group of people, an object, a set of conditions, a system of thought or a class of events in the present. The purpose of this descriptive study is to make a systematic, factual and accurate description, description, or painting of the facts, properties and relationships between the phenomena investigated. Meanwhile, according to Sugiyono (2005: 16) states that the descriptive method is a method used to describe or analyze a research result but is not used to make broader conclusions. According

to Whitney (1960) in Sugiyono (2005), the descriptive method is the search for facts with the right interpretation.

The type of observation used in this study is Non-Participant Observation by making informants as participants. Participatory observation is an observation that involves the researcher with the activity being observed. Non-participant observation is an observation in which the researcher is not directly involved only as an independent observer. (Sugiyono, 2005). Structured interview is a research method in which researchers conduct structured face-to-face interviews by giving questions to members of the organizational group and gathering information from respondents. The informants in this study are leaders or group members in organizations or several companies in the private sector, especially advertising companies.

Data Analysis Techniques used in this study used three flow models. According to Miles and Huberman the data analysis process is divided into 3, including Data Reduction, Data Presentation, and Drawing Conclusions. Miles and Huberman explained the difference between qualitative and quantitative data analysis. In qualitative data analysis, the analysis process flowed from the initial stage to the conclusion stage of the study results. The analysis process does not become rigid by these chronological boundaries. The components of data analysis (which includes reduction, presentation of data, and drawing conclusions) interactively interact during and after data collection. Such characters make qualitative data analysis also called interactive models.

The interactive model above can be explained through the analysis of flow model data where there is anticipation in data collection which is then reduced, presented, and draws conclusions. Anticipation of data collection is also observed during the analysis process and seen how the results of the data collection. The process of data reduction also explains the subject / object singly to explain the research focus position. The view of researchers here still requires objectivity when looking at the phenomenon of subject / object being in social reality and entering into management aspects. (Gora, 2019).

The use of reduction is used to describe a single data, but in certain research data reduction cannot be utilized if the research on an organization or company is seen in the organizational management structure and in its management structure. The process of analyzing qualitative data with a flow model can be explained in the following three steps: (Gora, 2019)

- 1. Data reduction, which is the process of selecting, focusing on simplification, abstraction, and transformation of rough data obtained in the field of study.
- 2. Presentation of data, which is a description of collated information that makes it possible to draw conclusions and take action.
- Drawing conclusions. From the beginning of the data collection, qualitative researchers sought the meaning of each symptom obtained in the field. Noting regularities or patterns of explanation and configuration that might be present, causality, and propositions.

#### RESULTS AND DISCUSSION

Based on the results of research that has been carried out a review of several companies such as in government, then in the private sector such as food companies, then advertising In advertising companies such as Social Colony Indonesia, based in Jakarta, prioritizing Digital Agency, Branding Agency, Social Media Management, SEM, SEO, WEB Design, GDN, ADS, and Creative Design. In advertising companies in this kind of advertising agency utilizing digital

media and multimedia integration which are distributed through online media and social media as an effort and new ways in digital advertising to build a form of creativity with new media.

It can be said that more people are now adopting the acquisition of complete information on advertising through digital advertising such as through online media and conventional electronic media such as television. The potential for online media can be said to be quite large considering that online broadcast media users such as online radio, then online television (Live Streaming) also have an audience that is not small in number. This then encourages advertising companies to be more vigorous in making changes towards online digital media for promotional activities and also creative services to clients.

Responding to this certainly makes the advertising company to improve the competence of Human Resources to be more creative and able to adapt or adapt to technology and also adept at using digital technology devices as a means of working and growing new competencies.

In the activities of the company's social colony advertising agency activities itself has implemented a digital advertising and creative system in the service of its clients to promote client products or services, as well as increasing corporate branding. Social colony segmenting the Digital Agency, so that the competence of Human Resources or workers in the Social Colony is certainly required to be able to maximize the competency capabilities and expertise in utilizing digital media.

The company is trying to bridge the companies and businesses in marketing their products on digital platforms such as Instagram and so on. Then one of the other reasons that the author considers to choose social colony is, they are also one of the Digital Marketing that uses Influencers in every product promotion that will be marketed to the public, therefore, this Social Colony then maximizes the role of Influencers in Digital Marketing Communication Strategy Marketing Social Colony Indonesia in Social Media and continues to improve HR competencies to be more creative in thinking digital promotions.

One reason to advertise by optimizing the role of Influencers for promotion in digital media will be a popular way and become a trend in Digital Marketing today is that the price is relatively cheap, especially compared to TV. when collaborating with Influencers is about brief competencies. Not a few Influencers who think that the brief given by the client is incomplete and sometimes likes to change halfway. This is the difficulty often faced by Influencers in delivering the content they have produced. But actually, this brief change from the client is often tolerated by Influencers as long as it is not a major change, such as changing hashtags or captions, and as long as it has no effect on the content production process. In fact, changing briefs like this can also be an obstacle so that the timeline is distorted or the campaign running is not optimal.

The obstacle faced by brands is that the content delivered by Influencers is sometimes not in accordance with the briefs they have agreed on. Often there are some important details for clients but are not conveyed by Influencers through their content. Actually for the brand itself, the content according to the brief is important so that the message they want to convey to the audience can be received and the "voice" of the brand is not biased. So it is important for Social Colony's own HR to build their ability to negotiate and apply creative communication in briefs with influencers.

For strategies to increase brand awareness in the launch of new products that are fast moving, it would be more effective if we use the type of mega influenza or macro influenza like celebrities or celebrities. However, if you need a higher engagement, then the micro type will be more suitable. To choose Influencers, many marketing agencies provide services for these needs. What must be considered is how the agency curates its Influencers.

The next factor is the HR mindset in implementing a digital promotion system also through applying the mindset of conventional advertising on television so that the expertise built by Creative HR in Social Colony itself must be based on the old skill system which is then converted to the expertise system on new media. In the transition period of marketing, many brand managers are in the gray area. The strategy has been trying to enter the digital realm with a more modern marketing method, but the execution is still using conventional advertising methods. Likewise with the implementation of its Influencer marketing strategy. Many still run the pattern they should advertorial advertisements in a print media. So that creative advertising on creative techniques and digital operations themselves must be able to apply visualization in accordance with the vision of the project work and its commitment.

During the COVID pandemic as now, Social Colony tries to integrate the performance of influencers with agencies through online. Like asking influencers to create their own photo content by highlighting consumer products sent to endorsements or influencers, then making photos for publication via web media or through social media or the web. In addition, the endorsement is also intended to create as creative content as possible both in the form of testimonial videos or creative videos through YouTube and Instagram so that they can attract public attention. It is also organized by the agency in virtual promotions and publications. Meanwhile in briefing and meting using video conferencing media such as zooming to conduct presentation briefings.

The second company is Bulaf Café from PT. Sumber Pangan Jaya which manufactures Bulaf sausage products. Creative worker systems on HR in Bulaf are also required to be able to adjust the creative form of promotion on bulaf products on social media and also for publication on online media such as through websites or to visualize bulaf products on YouTube.

Bulaf Café divides the role of work in the café such as baristas, chefs, cashiers, finance to the graphic design section which of course has different positions. This kind of division of labor that has demands to use digital technology in its operational processes is the financial, cashier and graphic design departments. The graphic design division also has a web operations division or web support.

To be able to apply the competency standards expected by Bulaf Café, it is necessary to build training and conduct several stages in providing training to HR to be able to do work by adapting to technology as a medium of work, including by implementing an assessment of the needs of the HR itself and also the assessment to the needs of the café. It also identifies training objectives and criteria.

The next step is to design the plan as well as testing the workers at Bulaf Café as trainees and making comparisons with previous training. Then choose the HR training method that suits the public needs and insert technological expertise with the operation of the device.

The training conducted by Bulaf Café was not specifically scheduled for the implementation of the training. However, the training activities are usually carried out in an annual period so as to produce a competent workforce as human resources who are literate about technology and are also able to bring the organization to the operational activities of the promotion and operationalization of work based on digital online.

Training needs can be diagnosed through organizational analyzes. An important part of organizational strategic HR planning is the identification of the knowledge, skills and abilities that will be needed in the future as work and organization changes. Both internal and external forces will influence training of HR and must be considered when conducting organizational analysis. This operational system usually invites workers in Bulaf to familiarize themselves with social media and help the promotion section to promote products through Whatsapp status, Instagram to YouTube content.

Bulaf Café maximizes the design and promotion section to optimize promotional designs and attractive promotional materials to be published through social media. The form of interaction carried out is by conducting briefings with employees or staff from Bulaf through Zoom and also coordination meetings through Whatsapp groups that are connected to each other. It also aims to integrate remote work considering that during the COVID 19 Pandemic era it was not currently possible for a group of people in the organization to do work together. So that digital online media technology is also relied upon to accommodate work within the organization.

Now, someone's digital presence is seen from brand digital interactions, as well as from footsteps recorded in the media and online platforms. Many people have more than one form of presence of workers in Bulaf when the Pandemic period optimized social media as a means of working using digital media, such as working with Facebook, Twitter, Linkedin, Instagram, Tumblr blogs, YouTube and so on. So that the public is faced with multiplatform as its working media.

In this increasingly connected world, digital life becomes inseparable from one's physical life. In the future, building and managing a digital presence will be as common as when people decide how they want to appear in their daily lives through clothing, words, and actions. In this connected world, and through digital presence, people will be able to seek and obtain information, convey ideas freely, find and be found, and develop ideas and maintain relationships virtually anywhere in the world. (Schwab, 2019)

The impact seen using digital devices here as done by Bulaf is to increase transparency, increase and accelerate mutual relations between individuals and groups, increase freedom of speech, accelerate dissemination and exchange of information, improve service efficiency to customers. Of course this has led to an increase in advertising targets, then an increase in targeted information and news, and portrayals.

#### **CONLUSION**

Based on the research results here, the majority of companies implement an active interaction strategy through social media as a communication media and also implement a coordination system both in meetings and online briefings such as online interactive media conferences conducted by Social Colony in coordinating with influencers, then coordinating HR through Zoom conference meeting. This then makes the company has clear data transparency and also makes it easy for the company to emphasize the important role of technology in the organization.

The same is done by Bulaf Café in enhancing corporate branding and the potential to improve corporate image through digital online platforms. So that through the integration of new media with the promotion system of the conventional way of promoting promotional material seeks to support the corporate image. So here the strategic effort undertaken by the

company in improving the competence of Human Resources is to provide practical training and emphasize the workers in the company or organization to have a digital platform such as a smartphone or tablet PC to support the work of the company. Besides optimizing the use of smartphones from workers or HR as a medium of communication, information and also for working tools.

In the industrial revolution 4.0 there was a change in technology and also a change in society. When entering the Covid Pandemic 19 era, companies and organizations are also required to be able to fully adapt to online digital technology in doing work in the office or working at home, then also carry out the operationalization of work with digital devices. So that the adaptation to technology is done by customizing human resources to increase interaction between one person with others by using long-distance digital communication technology such as using video conference meetings or through chat media.

Forms of adaptation to technology are carried out by Social Colony and Bulaf Café by using technology tools and social media for effective and efficient financing using digital media in order to save promotional funding. So here it is important for companies to implement digital promotion systems by optimizing devices through media convergence.

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