Determination of Indonesian HR Competency Development in the Industrial 4.0 Era

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Abstract

The purpose of this study is to identify the factors that influence the development of human resource competencies, with an emphasis on the ways in which the management of communication, collaboration, creativity, and innovation yields experimental competencies that can be applied to any challenge or opportunity without compromising the values of honesty and fair play. In accordance with the standards of academic investigation, this research employs a descriptive qualitative analysis. The transition from a weak to a strong type of artificial intelligence is a defining feature of the industry 4.0 years of age, and it presents both challenges and opportunities for developing human resources. This study's findings highlight the need for revising how HR competency development is determined in light of advances in AI technology. This implies that the expected competences must shift towards new, experimental sorts of management for higher levels of communication, collaboration, creativity, and innovation.

Keywords: HR development, communication, collaboration, creativity, innovation, and artificial intelligence

Introduction

In the modern era, which is marked by a great deal of change and quick disruption, it is essential to have a workforce that is highly skilled and has a high level of flexibility and agility in order for them to be able to endure and adjust to change (Sutarna, 2021). There will be an increase in the number of available jobs, but certain categories of work that are rendered obsolete by advances in technology and policies of government will vanish (Utami, 2021). To stay up with the quick pace of change, it is imperative to develop new skills, while at the same time adapting existing abilities to meet the requirements and expectations of newly acquired competences (IKADIM, 2021).

According to Christie and Alkin (Christie & Alkin, 2023) for the purpose of increasing HR competence in organisations, it is carried out by experimenting with changes to the design of HR management as a part of an effort to increase HR competence, through a series of long design formulations of quasi-experimental relationships, namely management through trials of different designs, which are done randomly. The above is done as part of an effort to increase HR competence (Fahrizal, 2021). This quasi-experimental design is an adaptation of random experiments, which may be easily adopted in the research of a variety of applied social sciences. However, in practise, random experiments do not always fulfil the practical and ethical features that are required of them, or they are carried out by assigning participants to conditions in a randomised controlled experiment. A competency improvement design is an example of a quasi-experimental design (Mashudi,

2023). This sort of design typically involves multiple different types of intervention or treatment, and it then enables a comparison of the results produced in randomised experiments (Ismail, 2021). Similarly, the treatment that is provided or randomised in an experiment using a new design approach, such as offering essential aspects of the experiment, ultimately results in a design in the form of the distinguishing qualities of the experiment (Faisal & Yulianto , 2023). The characteristics of the ideas that were presented in the paper who Campbell and Stanley wrote in 1966 have been acknowledged as having an influence in the promotion of new ideas related to the research designs for HR competency development, and these characteristics are now the basis of almost all applied social science research methods on HR competency development (Andriyanty, Rafiq, & Rambey, 2023). In terms of the response that was produced as a result of the intervention or treatment that was administered in this quasi-experimental, it was in the form of a positive response to the HR competency improvement design, and it contributed to create a competency climate that is more accepting of alternative ways of thinking about research in applied social sciences (Christie & Alkin, 2023).

According to Johannessen (Johannessen, 2021), there are four different kinds of HR competences. These HR competencies will be required to be maintained in order to ensure that they continue to have the relevance of the skills and expertise essential to HR design for every economic innovation. Because of the fast rate of economic change, the newly created positions are going to require a specific skill set in order to be successful (Sutarna, 2021). The general competencies that will be required to fulfil the function in order to fulfil the new job design include the 4C competencies, which are Communication, Creativity, Collaboration, and Change. These constitute the competences that will be required to fulfil the role. In addition to the above, certain skills in the fields of science, technology, engineering, and mathematics, also known as STEM (science, technology, engineering, and mathematics), will be required for work in interdisciplinary areas of these fields (Johannessen, 2021). Furthermore, the required HR competencies will place HR positions inside a competency framework known as SELC, which stands for social, emotional, leadership, and cultural skills (Fahrizal, 2021). Particularly, social, emotional, leadership, and cultural competencies. The ability to reflect on achievements, uphold ethics, know the values in carrying out tasks, and maintain a conducive environment will all be required for HR development, in along with a more important competency known as REVE (reflection, ethics, values, and environment). REVE is a competency that will assist in carrying out other competency roles (Johannessen, 2021).

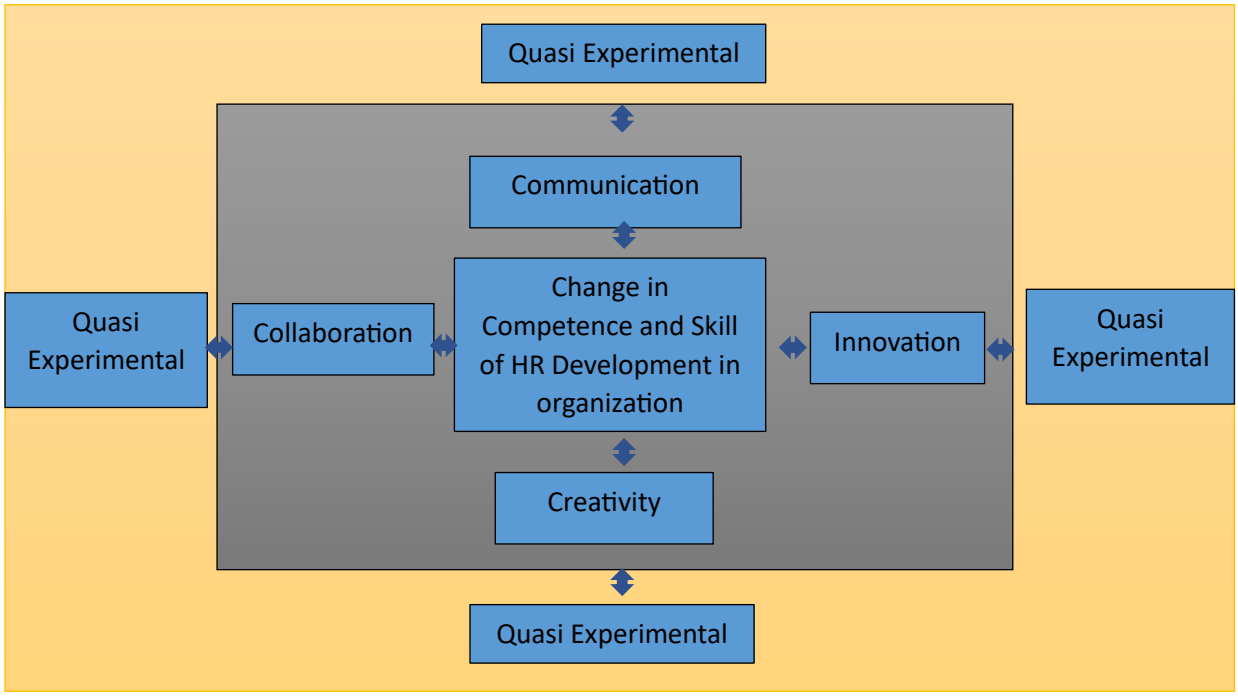
Furthermore, according to Johannessen (Johannessen, 2021), changes in the design of HR competencies and their contribution to economic innovation result in changes in company HR or employee turnover as workers with innovative economic competencies take the place of previous employees (Sutarna, 2021) who were relatively constant and who did not change from the past until this point before economic innovation emerged (Johannessen, 2021).

Literature Review

When one of a firm's workers quits his job, it is referred to as employee turnover. When this happens, the company is forced to find a new worker who possesses comparable levels of experience and ability (Johannessen, 2021). However, industrial improvements in the innovation economy within a short amount of time from the beginning of the Fourth Industrial Revolution resulted in the rate of industrial change expanding exponentially (Blinder, 2022). This occurred as a direct result of the exponential growth in the rate of industrial change. The changes that take place in competencies that are stable at the moment will be followed by changes in the requirements for competencies in the future (Johannessen, 2021). Because of this transition, there will be a far more emphasis placed on the ability and expertise of corporate management and personnel (Christie & Alkin, 2023). It is for this reason that firm management and workers are obliged to attempt to create a work environment that is in accordance with the required HR competencies (Johannessen, 2021). Rather than waiting until someone else provides a framework design for their workplace, companies are required to strive to establish a work environment that is in accordance with the required HR competencies. The emergence of notable new technologies, artificial intelligence, and intelligent robots are two hallmarks of the Fourth Industrial Revolution, which is characterised by these developments (Arasaratnam-Smith & Deardoff, 2023). As a result, it is necessary for both workers and leaders in companies to adapt to the capabilities required by the technological shift (Johannessen, 2021). The Fourth Industrial Revolution will need skills such as creativity, teamwork, communication, and invention from its workforce. These will be essential in order to succeed in this new era (Zhang, 2023). Because of this, it is essential for employees, and especially company leaders, to manage their business activities, as well as all related aspects of the company's business, in a cross-functional manner through a cross-functional competency team (Petersen, 2023). This is necessary in order to keep the needs of each business unit satisfied. It is possible for the company's business to be fulfilled to a greater degree, which, in turn, becomes an essential precondition for the development of communication, collaboration, creativity, and innovation. In addition to that, this communication, collaboration, creativity, and innovation is being used as a vision for the future and as preparation for future changes in competence and expertise (Fujimura, 2022). Therefore, the development of a team that is composed of many functional teams within the organisation of the firm will ensure that future knowledge sharing and assessment needs can be met (Petersen, 2023) For instance, teams that use a variety of potential scenarios of changes to be made are an example of this type of team. Additionally, both executives and employees need to possess the skills necessary to stay up with the changes that occur in order for the firm as a whole to be able to adapt to the changes that continue to emerge (Johannessen, 2021). It is vital to satisfy the demands to fulfil competencies, both socially and psychologically, as part of the intended changes in the organisation of the company in order to achieve the importance of this change adaptation. This is because it is important to accomplish the importance of this change adaptation.

The purpose of the explanation that was presented briefly above, as shown in Figure 1., in the management of competency changes in corporate organisations is to demonstrate that in the future, the management of HR competency changes in corporate organisations will adopt processes that are oriented to organisational needs rather than processes that are oriented to organisational functional activities (Christie & Alkin, 2023). When an organisation makes a change that moves towards a process that is targeted towards the needs of the organisation, the focus is always on the competence and knowledge of human resources, which is directed to fulfil the expectations that are considered by customers (Johannessen, 2021). The management of a business company that is focused on functional activities directs the abilities and expertise of its employees towards the completion of specific tasks or the performance of a variety of functions within the organisation. In the event that staff turnover is followed by changes in competency, function-oriented organisational change management will replace lost competencies and skills with the same kinds of abilities and skills as those that were lost (Somerset, 2023). As a result, in terms of employee turnover, it is not just about replacing lost HR competencies and skills with similar competencies and skills but also about adapting to the changing needs that the company faces when hiring new employees. However, in contrast to process-oriented organisational change management, the competencies and expertise of human resources that are needed by organisations are constantly changing (Johannessen, 2021).

Figure 1: The Design of the Change Management Competence of the Corporate Organisational HR



According to Somerset (Somerset, 2023) the management of organisational change takes into account the aims and objectives of the organisation, the attitude taken in

dealing with change and positioning oneself against risk, the approach taken to maintain the interests of the stakeholders of the company's organisation, the system and control of organisational activity governance, and or the organisational culture that is owned, organisational leadership, and actions that a company must take in order to successfully carry out change (Shinohara & Kenichi, 2022). Given the potential impact that will be generated, corporate policy makers are faced with the challenge of considering how changes in corporate organisational management are configured, encouraged, and led (Somerset, 2023). In addition, they must deal with the implications that arise as a result of these changes, which are actualized in the strategy that will be pursued and in the relationships that will be maintained between them.

According to Wess et., al (Wess, Klock, Siller, & Greefrath, 2021), in order to treat the criteria for competency design, the participants are necessary to conduct research that is capable of translating between reality and mathematics in two directions, and they are also required to work in a mathematical model by defining competence in a mathematical model of competence (Somerset, 2023). Additionally, the participants are expected to engage in a mathematical model of competence by constructing a mathematical model of competence (Wess, Klock, Siller, & Greefrath, 2021). The capacity to find relevant questions, arrange variables, determine correlations between variables, or develop assumptions that are important to these competencies in real-world situations and at certain periods is a translation of mathematical models (Wess, Klock, Siller, & Greefrath, 2021). In addition to the above, the statement is stated or translated into mathematics, and the statement in mathematics then provides an interpretation while also validating the completion of the competency solutions required by the mathematical model. Based on the given situational input into the mathematical model, the resulting mathematical model can be made by including the ability to examine or compare the given model by investigating the various assumptions made before, checking the fullness of the given definition, and determining the limitations of the model in the particular situation it represents (Del Prette & Del Prette, 2021). This can be done by including the ability to investigate the various assumptions made before, checking the fullness of the given definition, and determining the limitations of the model (Wess, Klock, Siller, & Greefrath, 2021).

The main purpose of handling competency requirements through modelling in educational institutions is to enhance students' problem-solving skills so that they are better able to apply their knowledge to situations (Somerset, 2023) that arise in the real world and make use of mathematical modelling techniques (Wess, Klock, Siller, & Greefrath, 2021). The preceding definition of the mathematical model describes what is known as global modelling competency, which is something that absolutely can be employed even with only partial forms in some processes known as atomistic perspectives (Wess, Klock, Siller, & Greefrath, 2021). In this understanding, modelling competency is recognised as an ability that can be used to build, use, or adapt mathematical models by carrying out the same steps in the process adequately and according to the needs of solving competence problems, as well as analysing or comparing the models that are produced

as a result of the modelling process (Ten Have, Vernooij, & Stuijt, 2023). As a result, the competence of the mathematical model is not a unidimensional construct; rather, it is capable of being construed as a mixture of several distinct sub-competencies (Wess, Klock, Siller, & Greefrath, 2021).

According to Del Prette and Del Prette (Del Prette & Del Prette, 2021), when translating mathematical models, it is important to note that socially competent in the actions taken do not have to be extraordinary but with these competencies produce the desired output, in accordance with competency criteria, both personally and socially. This is the case whether or not the actions taken are extraordinary (Shinohara & Kenichi, 2022). As is the case with the majority of interpersonal responsibilities, not all personal or social competency requirements are met on an ongoing basis as required (Wess, Klock, Siller, & Greefrath, 2021). The activities taken may be reviewed to determine whether or not they produced the necessary personal or social competence (Aweya, 2023), depending on the number of inputs and the variety of criteria that must be met. The relative character of the accomplishment of competencies provides cause for a number of questions (Del Prette & Del Prette, 2021).

In order for the action that was conducted to be considered to be individually or socially competent, what essential or fundamental requirements are required to be established? Is it possible for an individual to be thought of personally or socially competent if they fail to meet their objectives in the performance of tasks that require interpersonal competence? If this is the case, then why does a person who's behaviours are evaluated as being individually or socially competent not attain the goals they created themselves according to the criteria that has been established?

Olsen (Olsen, 2023) provides a few recommendations for ensuring that the strategic plan continues to execute well. Take control of the management process to ensure that competencies are satisfied in direct daily operations (Blinder, 2022). This constitutes the first step in preventing the strategic plan from failing while it is in the process of establishing competence designs (Arasaratnam-Smith & Deardoff, 2023). If the design of the competency is one that should be carried out by someone, then it will, of course, feel like a burden to that person; at this point following it has been carried out, it will feel like a satisfying achievement (Del Prette & Del Prette, 2021). When strategic management is incorporated into daily operations as an integral part of competency design, and when the task is completed according to requirements in accordance with the strategic plan, competency design becomes more natural in the context of satisfying HR development rather than something additional (Olsen, 2023).

Second, everyone ought to consider the organisational competency design which the company has established as their own personal competency design (Olsen, 2023). To design the competencies (Aweya, 2023), all of the staff members should participate in the process from the very beginning. Because the execution of the competency design will be predestined to failure if one simply considers the management team (Olsen, 2023). The position of competence of personnel at all levels not only provides a wealth of

information but also performs as the executor of the competency design of the organisation that the company deploys (Del Prette & Del Prette, 2021). Even if they have no physical presence throughout the planning process for competency design, they need to have the impression that they are participating throughout the process for the competency design implementation to be successful (Christie & Alkin, 2023).

Third, it can be accomplished to prevent the authoritative competence design failure of an organizational competency design strategy plan by burying it in hundreds of pages of text and erasing any little faults that may arise (Olsen, 2023). Eliminating the planning page that contained the competency design error makes the strategic plan considerably easier to read and understand (Del Prette & Del Prette, 2021). Get clear of the unnecessary text that is just cluttering up the page (Colwill, 2022). But determining what the core of the projected competency design actually entails ought to be prioritized as crucial (Olsen, 2023). Make it a point to check that the level of difficulty of the competency design plan is directly proportionate to the capacity to carry it out.

A business plan is not the same as the strategic method. A guide and a road map, a competency design strategic plan educates you how to get from the state you are in nowadays to the state you want to find yourself on (Ten Have, Vernooij, & Stuijt, 2023). Every component of the design of the competencies has a part to play in the process of precisely describing the shifting conditions (Arasaratnam-Smith & Deardoff, 2023). In contrast to a business strategy, the competency design does not provide third parties with an explanation of the company (Olsen, 2023). Readers of the plan include the team as a whole, along with the staff and any other individuals (Petersen, 2023). The plan does not involve part sales and instead involves part action. A document that articulates what is currently happening in the direction of achieving the desired state is designated as a competency design (Olsen, 2023).

In the development of the competency design, referencing is made to the leadership strategy in its capacity as the owner of the business process (Blinder, 2022). The formulation of a company's business strategy, which is performed by three to five persons appointed as drafting teams who lead other teams through the process of strategic management, is remarkably similar to the process of assembling a competency design as part of competency strategic planning (Belal, Shirahada, Kosaka, & Durowoju, 2023). There is no difference between the two processes. Appointment of a member of the key staff as the lead in the preparation of the competency design, whose work will be responsible for executing the following tasks: first, the progress achieved through the use of progress scorecards; second, obtaining updates from managers and staff on competency goals, objectives, and plans; third, coordinating and leading the review of monthly and quarterly competency suitability strategies as well as refreshing periodic competency design plans; and fourth, publishing or posting online competency compliancy information. Fifth, make sure the strategy continues to remain relevant by adjusting it to account for the changes occurring over the year (Olsen, 2023).

In the process of developing a Strategic Plan (Olsen, 2023), you can consolidate the entire plan onto a single page of a book in order to maintain it inside a structure that can be reviewed once more (Aweya, 2023). This is essential unless you have a filing cabinet with very big shelves. This document acts as backup documentation, can be used as a reference, and is used as a place to record significant aspects of the strategic plan on one page that is designed to be easily accessible on the internal website and/or social media (Olsen, 2023). Moreover, this document serves as a place to document important parts of the strategic plan (Ten Have, Vernooij, & Stuijt, 2023).

Everyone likes to be rewarded for work that is done well (Olsen, 2023), thus awarding success as the implementation of a strategic plan is a methodology that offers certainty for the implementation of some of the necessary actions (Ten Have, Vernooij, & Stuijt, 2023). In the procedure of carrying out activities carried out that link achievement with incentives, everyone likes to be rewarded for work that is done well (Kaluza, 2022). The provision of incentives can take many different forms and have varying values. Incentives can be developed with many kinds of creative facilities, although monetary incentives are always appreciated. Incentives can be developed (Olsen, 2023). By highlighting the importance of strategic planning and attaining established parameters targets, offering incentives to reward performance that has been achieved, and providing incentives to reward performance that possesses successfully achieved (Somerset, 2023).

For carrying out a strategic plan, in order for it to be implemented, everyone needs to understand that it is not falling prey to the competing strategic plans of big business players such as Keep it Simple, Stupid (KISS) as their media campaign by diminishing the effectiveness of corporate planning (Olsen, 2023). The above is necessary in order for the plan to be carried out successfully (Christie & Alkin, 2023). This is essential because when establishing a sophisticated strategic plan, it is quite easy for competitors to see it, despite the fact that numerous efforts have been taken to defend it. Despite these steps, it is still very easy for competitors to view it (Olsen, 2023).

In order to keep the strategic plan up to date, companies should hold monthly strategy review meetings (Christie & Alkin, 2023). The above should be done irrespective of any objections that other departments may have concerning meetings which are not routinely scheduled regularly planned staff meetings. Having a meeting about strategies in which the activity can truly be entertaining for participants is one way to increase the number of individuals who want to take part in the activity (Olsen, 2023). The meeting's agenda included a discussion of the operational procedures of the strategic plan, as well as the state of the company's strategic plan's achievement. It would be helpful if you could provide a check list of the actions that have been finished. At this discussion, they will also address what steps might be taken to improve the situation in the event that something unfavourable takes place (Blinder, 2022). Additional adjustments, if required, can be made through the course of this the meeting (Christie & Alkin, 2023).

In order to avoid making the meeting about the development of the strategic plan into a tedious experience and to ensure that the meeting can continue even if it only lasts a

short amount of time (Olsen, 2023). In order to facilitate discussions, you may start by asking each worker to report on one or two accomplishments that have been achieved (Christie & Alkin, 2023). Put a time limit of one minute on each person's report and make sure someone is keeping track of the clock (Colwill, 2022). By writing them on the meeting board, you can ask workers who are experiencing problems or problems that have been encountered in the section where they require support questions about those problems (Olsen, 2023). Discuss through the use of conversations in focus groups, allocating ten to fifteen minutes every group to work specifically on finding a solution to the problem at hand (Kosieradzka & Rostek, 2021). Keep in mind that the topics that are being discussed must be connected in some way to the overarching strategic plan that guides the operations of the entire business; if these difficulties are unable to be handled, then the discussion of them should be postponed until a later date. Don't make fixing problems the exclusive focus of the meeting, but do make sure everyone is in their assigned spots by the end of the allotted time (Olsen, 2023).

There is a possibility that the outcomes of the conversations that took place would surprise people with their passion and the efficiency of meetings to discuss strategic plans like this particular one (Houtman, Vanroelen, & Kraan, 2021). People have a general fascination with discussing strategic plans and the ways in which the actualization of a strategy will have an effect on the consistency of their working lives (Olsen, 2023). For them to be able to execute problem-solving strategies in accordance with their significant initiatives, discussions like this should be enjoyable and exciting (Kosieradzka & Rostek, 2021).

It is required that communication constantly available at all times in order to ensure that the strategy plan is operating as it should (Olsen, 2023). The above may seem like a tremendous undertaking that requires attention and carries the risk of failing (Colwill, 2022). However, in addition to maintain that the strategic plan is performing as it should, it is necessary that communication always available at all times (Petersen, 2023). Staff members need to have an understanding of the efforts that are being made so that they do not appear to be uninformed of their position (Colwill, 2022). The latter, in turn, will help avoid things that are unwanted in the process of putting the strategic plan into action. In this scenario, there should not be any members of staff that take advantage of people's lack of knowledge and turn it into a source of joy (Olsen, 2023).

Utilizing a score card while maintaining everyone's connection to one another allows you to maintain control over the staff members while ensuring that their task is completed in accordance with the requirements (Olsen, 2023). The scorecard is designed to provide brief overview information on the plan that is already underway and enables with these controls to track the progress being made toward each goal. The goal of the strategy in its optimal state (Somerset, 2023). Within an ideal scenario, the plans that are put into action develop measurable plan objectives (Colwill, 2022). These objectives should have monthly or quarterly targets that can be used to track actual data on the plans that have been put into action (Olsen, 2023).

The score card that was developed acts as a type of a precise progress report, and it only consists of one work sheet summarizing the outcomes of each plan target that was included in the strategic plan. The use of scorecards can be developed in the form of charts and graphs, which can contain brief illustrations that express the progress of implementing the plan (Olsen, 2023). Additionally, the method of presentation can be designed to be attractive to the eye (Ten Have, Vernooij, & Stuijt, 2023). The scorecard is also able to assist staff members in continuing to participate in accordance with their individual duties regarding the accomplishment of the strategic plan (Del Prette & Del Prette, 2021).

Setting an outstanding example for others to follow so that they will imitate what they see when they look to others for instruction (Colwill, 2022). In this way, it is understood that there is nothing better than leading in the actualization of a strategy that is truly in accordance with the planning objectives (Olsen, 2023). This is due to the fact that is nothing better than leading in the performance of a strategy (Blinder, 2022). The best way to ensure that one's plans will bear fruit is to demonstrate strong leadership (Colwill, 2022), giving one's whole dedication to the business, and treating its successful completion as the single most crucial component (Jain, 2019). Even if they have to retract a few of their steps, doing so will provide them with more flexibility with the staff members. It becomes a component of the communication with consumers, clients, and members of the company's board of directors when it is discussed with employees about the strategy that is currently being implemented (Olsen, 2023). Inquire of staff members as to the success or failure of the implementation of the strategic plans, focusing on whether or not things have been progressing according to plan (Belal, Shirahada, Kosaka, & Durowoju, 2023). Give a time estimate for the determination of the budget, and double check to make sure that the budget is in compliance with the plans that have been drafted (Olsen, 2023).

In the process of putting the plan into action to achieve success, you should enjoy success to the extent that regardless of the level of success, because too much attention is focused to putting tomorrow's work plans into action, which causes to miss the moment of achievement (Olsen, 2023) that is occurring right now. It is not necessary to wait until all of the accomplishments have been documented to begin celebrating success (Somerset, 2023). The successful execution of the strategy includes the necessary steps of celebrating achievement along the way. Is this accomplishment a significant milestone? Host a pizza party for them, or invite them to lunch with you and some other people. However, it is simpler to do it by hitting the bell so that it rings according to the requirement to share the feeling of achievement obtained, announce that we succeeded (Olsen, 2023). This will allow everyone to feel that they contributed to the success of the endeavour (Christie & Alkin, 2023). Celebrating triumphs keeps everyone feeling like an important part of the team and gives them a role that can be built on and can drive them (Christie & Alkin, 2023). This is true regardless of how large or small an influence the results may have had (Olsen, 2023).

Research Method

This study utilizes the techniques of the Scientific Research Method, in which the researcher is actively involved in the process of confirming the hypothesis. According to Jain (Jain, 2019), the purpose of research methods that try to prove something is to determine the nature of the relationship between the different events that are observed. This insight serves as the foundation for an explanation of the nature of the relationship that develops between the two parties involved. In this particular investigation, the researcher gathered information to answer the questionnaire by conducting interviews with users either one-on-one or one-on-one with a group of users. During these interviews, the researcher posed questions to research respondents or proposed topics of conversation. After that, we asked the respondents to offer answers to the research questions and to follow any additional instructions that were given as a follow-up. In addition to that, observations were made by noting activities or behaviours relating to the researcher's research topic while monitoring individuals or the interaction of groups of respondents. This was done by observing individuals or groups of respondents. Making controlled arrangements or participating in experimental research is one way to carry out research observations. Another option is to engage in naturalistic observation of what occurred and the setting in which it occurred. In this stage, the researcher may or may not take part in the activities that are the subject of the observation, depending on the type of observation. In addition, document analysis or library archive analysis is also carried out as part of this sort of qualitative research. This type of study may include the examination of any and all types of documents, media, historical records, or present records. The term "document" can also be used to refer to various types of written or visual resources, such as journals, narratives, and diaries.

Discussion

It is recognized that carrying out competence is related to the personal side of stressful events, as stated by Kaluza (Kaluza, 2022). It is often difficult for some people to carry out their competence because they within the company equate it with an admission of guilt, which then leads to feelings of incompetence and failure or even self-reproach, as stated by Kaluza (Kaluza, 2022). Alone. However, this confession is being taken in the wrong direction. Stress is to blame for this, not individual blunders or setbacks, which are irrelevant to the subject at hand (Ismail, 2021). Whenever a person becomes conscious of the "stressful portion of themselves," they are freed from the one-sided reliance that is caused by events that occur outside of themselves (Fahrizal, 2021). When an excessive number of external events that generate one-sided dependence as a victim of external stressors are experienced, a person who is competent in the performance of activities becomes powerless (Sutarna, 2021). It turns out that they just react, rather than behaving in a way that is proportionate with their competence (Kaluza, 2022). Confrontation with stress on oneself that exacerbates attitudes and behaviour opens one's eyes to the free space for potential solutions that can be sought, to chances for decision-making, and to the scope of action in sustaining one's own physical and mental health despite the

pressures from the outside world (Asrarudin & Dewi, 2021). With that explanation, regaining competence and encouraging oneself to notice and extricate oneself from stress becomes as easy as taking a basic patent medicine and following some fast instructions, both of which will help one deal with the effects of stress under these circumstances (Utama, 2021). Stress is a very personal experience that can have an effect on performance in three distinct ways: through stress triggers, stress reactions, and personal stress boosters (Kaluza, 2022). Stress is a very individual phenomenon (Ismail, 2021).

According to Aweya (Aweya, 2023) changes in the advancement of electronic and optical technology coupled with the emergence of electronic business (eBusiness), social networking, and broadband mobile communications, among several other things, have significantly changed the modern network landscape, which necessitates adjustments to one's level of competency (IKADIM, 2021). For instance, the introduction of e-business, widespread access to mobile networks, and high-speed transportation networks have all contributed to fundamental shifts in the manner in which enterprises are operated. In the realm of e-business, traditional business systems and processes are giving way to internetwork business solutions (Gultom, Setyawan, & Laksono, 2023). These solutions capitalize on the full potential of enterprise and service provider networks in addition to the public Internet (Fahrizal, 2021). As a result, businesses are able to achieve their objectives more quickly. As the number of e-businesses increases, companies regularly assess the impact that this may have on their market position and adjust their strategies accordingly (Afiat, 2021). The capacity of an organization's network, which serves as the foundation for its e-business strategy, is one of the most important factors determining whether or not it will be successful in today's very competitive business market (Aweya, 2023). In today's more cutthroat business climate, companies are becoming increasingly aware that their network is a strategic asset (Apriyanti & Romli, 2022) that plays a very essential part in the overall success of their company (Aweya, 2023).

Aweya noted (Aweya, 2023) that the competency required in e-business is the capacity to construct a network of sales packets originating from a host or router and then forwarding them through a router system and associated networks until the packet reaches a router connected to the same network as the destination host (Zaman & Andriyani, 2022). After that, the final router will forward the packet to the local host that has been specified on its own network (Fahrizal, 2021). Each router maintains its own database of next-hop information, which enables it to move data packets along the network to their final destination (Aweya, 2023). If a router does not have a direct connection to the final destination of a packet, it will check its routing table to determine where the packet should be sent and then send it to a different router, known as a next-hop router, that is located closer to the final destination. This procedure is carried out once at each router, also known as a hop, until the data packet reaches its ultimate destination in the system (Laksono, Hasibuan, Sundara, Permatasari, & Saidih, 2020).

According to Fujimura (Fujimura, 2022), cultural competence relies on the efforts that are made to continue to improve cultural competence in the context of new understanding, skills, expertise, and curiosity. Previous research has demonstrated that styles of thinking that stimulate curiosity have a favourable influence on personal growth, interpersonal connections, and professionalism (Sutarna, 2021). According to the research conducted by Kashdan et al. in 2004, curiosity is about the possibility for personal growth as "a motivational system associated to positive feelings related to recognition, pursuit of knowledge, and placing oneself in curious, unique, and difficult situations." Curiosity is described as a motivational system related to positive emotions related to recognition, pursuit of information, and placing oneself in curious, novel, and demanding experiences. The core of competency development needs to make space for curiosity, and the ultimate aim of gaining cross-cultural competence needs to be accomplished by making the effort to step outside of one's comfort zone and taking the necessary risks (Ismail, 2021). The process of developing one's competencies involves consciously removing oneself from one's typical environment and placing oneself in a new one. In the meantime, certain professionals may have the time and means to research knowledge, including traveling abroad, in order to cultivate their sense of curiosity (Utami, 2021). It shouldn't be necessary to travel very far to different nations overseas, different states, different towns, or even just to your own workplace in order to develop cross-cultural competence, as this may be done at the same time (Utama, 2021). Going to Chinatown or an ethnic restaurant is a step in the right way; however, if you do not build cross-cultural competency, these experiences will not be adequate (Fujimura, 2022). This development in the context of a foreign culture is intentionally and deliberately targeted at expanding capabilities as well as for self-examination and for growing competence as the key (Faisal & Yulianto , 2023).

Fujjimura added (Fujimura, 2022) Three-dimensional cross-cultural competence (3C) gives a road toward completing personal competence and professionalism by enhancing the development of personal competence, maximizing the growth of competence in a foreign setting, and strengthening the growth of personal competence overall (IKADIM, 2021). However, as demonstrated in cross-cultural competency, the completion of these abilities cannot be acquired merely by reading the handbook (Sutarna, 2021). This was one of the examples given. From the experiential component involving participant observation to reflexivity (the awareness of maintaining dynamism in one's relationships with people in different cultural contexts), 3C competencies are developed and maintained through interaction, reflection, self-criticism with the resulting reflection, and understanding of people's behaviour and motivations - person, others, and yourself (Fahrizal, 2021). The experiential component involves the participant observation of other people. During this stage of development, the focus of self-growth is on the three primary components that lay the groundwork for 3C and optimizing those components to ensure that the process goes off without a hitch (Afiat, 2021). Empathy, attentive awareness, and reflexivity are the means through which the fundamental components of the 3C competency can be comprehended, uncovered, adapted, and improved (Fujimura, 2022).

According to Arasatnam-Smith and Deardoff (Arasaratnam-Smith & Deardoff, 2023) in reflexivity, the important role of reflection is to develop intercultural competence, which plays an important role in competence, based on theoretical concepts (Sutarna, 2021) that contain transformative learning theory, which elaborates the ability to critical reflection (Arasaratnam-Smith & Deardoff, 2023). This is an important role in reflexivity (Utami, 2021). Mezirow's theory focuses on the significance of competence in the context of an intercultural "disorientation dilemma." An intercultural "disorientation dilemma" is defined as a circumstance that produces a startling or upsetting distraction due to the fact that it contradicts what is already known (Arasaratnam-Smith & Deardoff, 2023). This more complex version of the disorientation issue will, in turn, motivate each individual to combine new understandings, views, and assumptions about how intercultural competence functions in the world (Ismail, 2021). The end outcome of these fresh perspectives on the operation of intercultural competence in the world is a transition that Mezirow characterizes as a shift in the way intercultural competence in the world is interpreted (Sutarna, 2021). This shift takes place as a result of a learning process known as critical reflection, which was once constructed from assumptions that were believed to be based on objectively repeated definitions (from others) and subjectively (from oneself) (Utama, 2021). Learning how to understand the disorientation caused by cross-cultural challenges can be facilitated by the experience of studying in a foreign country (Fahrizal, 2021). In the same vein, critical reflection is an essential component in the process of interpreting these kinds of disorientation dilemmas (Arasaratnam-Smith & Deardoff, 2023). Critical reflection encompasses not only the cultural substances that are learned (referred to as "substance reflection" in this context), but also the process by which intercultural competence is acquired (referred to as "process reflection"), which is then followed by an assessment of learning (referred to as "reflection on premises"). The process of rewriting narratives in order to perceive experiences in a more personal light is referred to as reframing, and it plays a crucial role in the process of converting intercultural competency development (Sutarna, 2021).

According to Zhang (Zhang, 2023) culture was initially overlooked in many classrooms where students were learning a foreign language. This is the case despite the fact that instructors in competency improvement programs are aware of the significance of incorporating intercultural competence into the acquisition of a number of linguistic components (Sutarna, 2021). One of the arguments is that instructors teaching competency improvement programs have a tendency to follow the old approach, which emphasizes the competencies that must be possessed before teaching language substance that has been compiled in the participants' communication grammar syllabus to use language that has linguistic accuracy and communication that does not ignore awareness of cultural elements in language or in learning the development of intercultural communication competence (Afiat, 2021). The above is one of the arguments. Another argument is that instructors teaching competency improvement programs tend to follow the new approach, which emphasizes the competencies that must be possessed before teaching (Fahrizal, 2021). In addition, the awareness of these teachers does not appear to have sufficient time to think about how to incorporate learning about cultural material

into communication in the classroom or learning after the competency improvement program class has concluded (Sutarna, 2021). Even if they are self-aware and committed to a high-substantial communication culture in teaching, many novice instructors frequently place too much importance on personal development as instructors themselves in the time and energy they have in language instruction (Zhang, 2023). This can happen despite the fact that they are dedicated to a high-substantial communication culture in teaching (Ismail, 2021). In addition, there is a shortage of assistance, both the essential supporting resources and the appropriate technical support, causing it difficult to deliver instruction within the context of competency improvement programs (Zhang, 2023). Culture, in the eyes of academics, is something that is always touched, but the ways in which its relevance and contribution to the instruction of communicative language are not fully emphasized, leading to the perception that it is a mysterious and cryptic component (Gultom, Setyawan, & Laksono, 2023). The lack of adequate teaching resources in the area of teaching culturally appropriate interactional skills makes this problem of poor relevance and contribution even worse (Zhang, 2023). It is possible to readily explain and practice vocabulary and grammatical topics, but culturally compliant instruction of the language of communication and cultural incompatibilities create problems to classroom education at all times (Utama, 2021).

According to Petersen (Petersen, 2023) researchers develop the idea of ignoring organizational strategy associated to cultural interaction through discourses that discuss cultural subject matter that makes sense. This cultural subject matter is advertised as a skill that is above the level of expertise of the average worker (Sukemi, 2021). Within this framework, the use of hierarchical upward construction to bolster competency independence is legitimate (Pratikno, 2021). The position of this competence becomes very obvious in the levels that must be dragged up by other people (level 9) (Fahrizal, 2021), which, in the debate of competence, believes their competencies to be higher than those of the other people. Constructing a belief in competence itself are discourses that examine the material cultural values that elevate one's level of competence over the norm (Sutarna, 2021). This expertise places a strong emphasis on the needs of the customer as an essential aspect of service (Samihardjo, 2021). "A competency that says what you need to be fulfilled is classified as level 3 (I.3)." Choices lexically according to the genuine meaning, focusing attention on discourse that addresses themes that are felt together (Fahrizal, 2021); for example, strengthening his own competence as a consultant by articulating his capacity to "dig broadly and deeply" (Fahrizal, 2021) This competency I.9 then builds its competency link into the contribution made as a 'competence product output manager' (Sutarna, 2021), claiming that this competency contribution is the reason why it is important to draw 'others to' level 7 – 9 (I.7–9) as an own level of competence. This competency I.9 also refers to the contribution made as a 'competence product output manager'. Because there is no other position level at the organizational level that uses the phrase "competence product manager" when describing it, it is highly likely that the title is merely a symbolic embodiment of Discursive Sense eking about the individual's competency identity level 9 as a knowledge leader inside the organization (Sutarna, 2021).

According to Belal et. al. (Belal, Shirahada, Kosaka, & Durowoju, 2023) the importance of knowledge competency in accordance with the contemporary business environment, which is thus called the "knowledge competency point of view," has been practiced in both the business world and the academic world. The scientific work that academic researchers do at tertiary institutions is what is considered to be the definition of knowledge competency. Some academics define "knowledge competence" as the beliefs that workers in firms have to improve their company's organizational performance capabilities (Rony, 2021). Other academics define "knowledge competence" differently. Another scholar, Uriarte, argued in 2008 that 'knowledge competence' has the potential to develop into' more advanced knowledge competence' through a process of mastering further information. This process can include experience that has been gained, knowledge that continues to develop, and increased competence in areas other than the one being studied (Fahrizal, 2021). Uriarte's statement can be found here. According to the definition offered by another academic, Bell in 1973, having knowledge involves having concepts or ideas that are then articulated in an ordered fashion that provides a fact that follows a specific logic or by experimental experiments of some type of systematic experimentation. According to the definition provided by another scholar, Davenport and Prusak in 1998, having knowledge means having knowledge competency, which comes from a mixture that brings together experiences, values, contextual information, and awareness of expertise (Ismail, 2021). In the meantime, according to Drucker's definition from 1993, knowledge is having information on how to transform anything to become more competent (for example, individual or organizational competence) through action, which makes it more capable or effective in providing productivity. Knowledge This is referred to as "specific knowledge competency," and it places an emphasis on the quality level of knowledge, particularly as it relates to its application to the commercial activities of an organization or a firm (Sutarna, 2021). In the context of knowledge competence, it is easy to understand why academics like Nonaka and Drucker believe that the knowledge competence possessed by an individual or organization is closely related to the organizational processes and activities that are carried out systematically and that are carried out in order to increase worker productivity and the knowledge creation function itself. As a result (Utami, 2021), the meaning of the term "knowledge competency" is largely reliant on the circumstances in which it is interpreted.

According to Maliszewska (Maliszewska, 2023) developments in achieving I4.0 technology have now crossed all areas of the company as a whole. As a result, managers in the company must have the knowledge competence to recognize the direction of the process flow of technological progress developments in data management, information mastery and other knowledge, as well as the ability to manage collaboration between organizational HR and machines in an appropriate manner (Rony, 2021). The I4.0 concept then takes this collaboration and organizes it into a competency model that includes human-machine collaboration along with duties and responsibilities that are directed to client needs (Ismail, 2021).

According to Guvta (Guvta, 2023) many different competency models of processes that develop collaboration between humans and technology are carried out through start-ups. The partnership method is used to carry out human-machine collaboration in start-ups (Rony, 2021). This method involves establishing partnership relationship facilities and developing these partnerships through the process of finding potential partners, determining the appropriate level of partnership arrangement modes, preparing partnership contracts, executing contracts, and ultimately increasing the achievement of partnerships based on results. examination of success based on measurements (Fahrizal, 2021). In addition to that, it outlines the goals that the organization wants to achieve, such as increasing market share, locating competency gaps that develop, and directing the next steps from all necessary components of the collaborative process (Guvta, 2023). In a similar vein, identify the optimal level of joint innovation setting mode collaboration (within the context of the 2D working relationship framework). In this configuration mode, it is recognized at the beginning of each startup procedure (Pratikno, 2021). In order to successfully execute and develop collaboration, it is necessary to first identify the terms and conditions of the partnership before formulating those terms and conditions (Fahrizal, 2021).

Large firms have reportedly implemented competency models not just in machine and human collaboration but also as a framework for carrying out recruitment systems, performance evaluation, learning management, and career development path designs, as stated by Blinder (Blinder, 2022). In order to put this model into action, it is common knowledge that they spent millions of dollars developing it and making it suitable for use as a measurement tool in performance evaluation and company performance management processes, learning management systems, and as a competency model for various other human resource functions and systems (Sutarna, 2021). Competence was defined by Tomas F. Gilbert in 1978 and Marilyn Gilbert in 2019 as an activity carried out in the production of a valuable achievement, which may also be referred to as the output of one's work. The significance of the assistance provided is proportional to the manner in which the goals of the organization or society are accomplished (Sukemi, 2021). Competence, on the other hand, is a term that has been used for several decades by professionals working in the field of human resources and professional worker training (Pratikno, 2021). Competence includes the abstract categories of skill competencies possessed, knowledge competencies, and attribute competencies attached to the person in question (Fahrizal, 2021), all of which are frequently used for measurement. systems for performance management and learning management, with detailed descriptions of the intended level of performance included (Sutarna, 2021).

According to Troisi (Troisi, 2023) the impact is the previously formed network consisting of various subjects with a broad scope within the framework of a technological development approach that jointly creates knowledge network-based technologies, shares expertise with each other, and enhances each other's competencies and improves knowledge competency with information disseminated to each other. The network that is formed is then strengthened by a social approach, which includes the sharing of an

entrepreneurial culture that supports the necessary actions to deal with risks associated with business activities that can take hidden benefits from the transmission of knowledge inherent in these business activities (Andriyanty, Rafiq, & Rambey, 2023). This threat occurs due to the fact that the actors involved in commercial activities also originate from the public sector (Rony, 2021). These actors take a certain portion of business operations connected to limited administrative and geographical activities within the framework of the interests of the actors involved in business activities (Utami, 2021). In essence, in this administrative and geographical approach ecosystem, there is no overlap with the boundaries of each other's approaches (Utama, 2021). This includes the boundaries of approaches such as geographical clusters, which are characterized by agglomeration economic activities that are closely related to the expertise possessed by each individual within the company.

According to Houtman (Houtman, Vanroelen, & Kraan, 2021), there is currently no significant evidence from various comparative indicators in measuring the relationship between work and mental health related to work competencies carried out in the Netherlands and Belgium, even in Europe itself, as part of the EWCS (European Working Conditions Survey), which included one of the work competency measurement survey items by including a work fatigue scale in the sixth follow-up survey (EWCS). Despite the fact that this item only pertains to one of the three frequently recognized dimensions of Burnout assessment, the purpose of this context is to demonstrate that the items in question indicate healthy habits as part of the prediction of Burnout among employees in Europe when paired with other concepts that are pertinent (Fahrizal, 2021). Therefore, with this mental health measure, it is regarded to be extremely interesting to provide the prevalence of exhaustion at the end of the work day at the country level as measured by the EWCS-2015, as well as some of the EWCS methodological measures, and fatigue items, in a separate discussion. This is because the prevalence of fatigue at the end of the work day at the country level is directly related to the amount of time spent working (Rony, 2021). The authors Maslach, Jackson, and Leiter are credited with providing the definition of burnout that is used the most frequently today. According to this definition, burnout is a condition experienced by workers with work fatigue in which they are cynical about the results achieved from their work and doubt the work that was completed. as the talent that is best suited to attain the intended outcomes (Samihardjo, 2021). More specifically, this mental health as part of Burnout's core dimension of mental health fatigue, that these fatigues refer to significant and persistent fatigue in the work that will be finished in the future and is always followed by feelings of tiredness and emotional exhaustion, that this mental health weariness refers to serious and persistent fatigue in the work that will be completed in the future and is always followed by those feelings (Sutarna, 2021). The second element of mental health burnout is the cynicism that sets in towards the end of the working day (Sutarna, 2021). This cynicism manifests itself in the form of a loss of interest and passion in one's work, as well as uncertainties regarding the value and meaning of the work that has been performed. The final aspect of burnout posits that a person's mental health at the end of the working day brings down the value of their professional efficacy (Fahrizal, 2021). This is then followed by the perception that

one is no longer competent at their job, that one is unable to work effectively any longer, and that one has a diminished sense of personal achievement that has been felt in the workplace (Ismail, 2021). In other words, the mental health measure of burnout depicts a multidimensional construct that is the result of a stress reaction (mental tiredness), a poor mental health response (cynicism), and negative self-esteem (loss of professional efficacy).

According to Kosieradzka and Rostek (Kosieradzka & Rostek, 2021) in the 21st century, organizations have learned a lot about how they value the importance of operations in predicting events whose events are very likely to occur even though these events have a negative impact. This is so that these operations can be followed up with implement adequate protection against the risk of negative impacts (Sutarna, 2021). The Business Continuity Maturity Model (BCMM) developed by the Virtual Corporation is now the most well-known and widely used operation protection model in the field of risk management and the anticipation of sustainability. This model is used to prepare for potential risks. Model in 2020. This operational protection involves an examination of the development of operations based on a level 6 maturity point scale, with assessment criteria consisting of 11 competency categories and their sustainability that must be assessed, specifically 7 competency areas and 4 areas of sustainability criteria. In addition, there is another operational protection model that is utilized in order to anticipate risks through risk management and sustainability (Rony, 2021). This model is known as the Enterprise Risk Management Maturity Model, or the ERM model, and it consists of 8 assessment areas that are evaluated using a maturity scale of level 5 that was developed by Ciorciani and Blattner in 2008. The Risk and Insurance Management Society-Maturity Model (RIMS-RMM) is the most well-known maturity model of competitive risk and sustainability. It uses a level 5-point scale and a survey to examine 7 competency traits and their sustainability in 25 competency units. This model was developed by the Risk and Insurance Management Society. 68 important characteristics that, when taken together, represent an organization in terms of its predictive operations The many rules and norms that are applicable in risk management contribute to this model's advantage, as does the model's continued viability (IKADIM, 2021). A model known as Risk Management in Public Crisis Management, also known as RMPCM or an operational model for competency protection and sustainability through Risk Management in Public Crisis Management, has been proposed for the purpose of addressing issues of competency and sustainability in the public sector for the impact of the crisis that they are currently experiencing.

According to Ten Have et al. (Ten Have, Vernooij, & Stuijt, 2023) there are a variety of reasons why you should adopt a new visualization or modelling that was presented to illustrate the concept of competency. One of these reasons is that it will help you better understand the data (Utama, 2021). The fundamental structure and dynamics of the visualization or modelling were originally designed for the aim of being applied to and tested in a variety of specific disciplines within the context of change management (Rony, 2021). This was done with the intention of improving the process of managing change (Utami, 2021). When discussing "particular change objectives," such as the following:

What should need to be changed, and how can competence be increased to meet these changes? This competency model in change management for change intends to help answer important questions of change competence in order to provide a response (Sutarna, 2021). The first aspect of the change is concerned with the path that should be taken, the concept that should be brought to fruition, or the vision of the change itself, and the second aspect of the change is concerned with the capabilities that are necessary to carry out the execution, the feasibility, or the capabilities that are possessed for the change (Fahrizal, 2021). In the process of picturing it, the vision of change can be pictured as a vertical axis or lemniscate (Ten Have, Vernooij, & Stuijt, 2023). This axis or lemniscate can then be characterized as variables affecting change or important reasons for change for each argument for the facts that occur and the impacts coming from the change itself (Sutarna, 2021). The subsequent representation of the capacity for improving competencies that is required for competency change is shown as a horizontal axis (Ismail, 2021). This axis reflects the form of focus and energy that is linked with competence.

In the context of a combination of these two models (Rony, 2021), it is found that a social psychological model that influences competence based on social motives and a change competency model that is based on key factors in achieving subsequent change between social motives and key competence factors at least have similarities in terms of schematic, visualization, and conceptual similarity, as well as in providing insight into changes that occur and additional learning that is also related (Del Prette & Del Prette, 2021). The social psychological model influences competence based on social motives (Sutarna, 2021). The change competency model is based on key factors When expanding on the insights regarding change and additional learning, it is helpful to make reference to the 29 main competency development categories that are categorized and positioned in a model known as the Fiske Model (Ten Have, Vernooij, & Stuijt, 2023). Following that, both the Fiske Model and the change competency model are utilized as a framework for describing relevant and important competencies to meet competency development in change management (Ismail, 2021).

According to Colwil (Colwill, 2022), in the process of exercising the power that is owned, one model of sharing power can be used to create a variety of entrepreneurial innovations. This, in conjunction with the power that is owned, provides opportunities for wider participation in society through education, and at the same time, makes this model of sharing power while limiting the abuse of power and opportunities for corruption (Apriyanti & Romli, 2022). In this model, even though the various models of power sharing differ in the hierarchical structure of the organization, it is possible to obtain a substantial contribution through the implementation of innovation by reducing power in an organization through the level of structural distance with the top leadership (Apriyanti & Romli, 2022). This can be accomplished by increasing the level of structural distance between oneself and the top leadership (Sutarna, 2021). A reduction in structural power can make an organization's capacities more flexible and can boost both the development of competencies and learning within those competencies (Rony, 2021). When members

of an organization are used to receiving direction and making decisions from their superiors, it can be challenging to initiate new ideas and maintain those ideas through egalitarian power-holding practices if the culture of the organization is one in which power is held at a distance from the direct implementer (Ismail, 2021) and in which high levels of power are held at a distance from one another (Fahrizal, 2021). Because there are fewer opportunities to discuss innovations and voice various viewpoints, a high level of power distance will also limit people from having the opportunity to ask questions, learn in the context of competency development, and adapt to change through innovation (Sutarna, 2021). This is due to the fact that there are less opportunities to dispute innovations (Colwill, 2022). Because the act of questioning might be misunderstood or misconstrued as a critique of the authority that is held, which in turn places responsibility on that power, the act of questioning can be restricted (Utama, 2021).

According to Zanoni et. al. (Zanoni, et al., 2021), all students in doctoral programs focus their study on diversity collectively. At the same time, they pay attention to the theses of students in undergraduate or master's programs on issues that are linked to their research on diversity. to enhance one another's research capabilities in a complementary manner (Rony, 2021). The act of serving as one's own thesis supervisor can result in a number of positive outcomes (Utama, 2021). They can get experience helping other people form arguments and write research while simultaneously involving master's students in the process of acquiring more data that is necessary for the completion of their research (Sutarna, 2021). However, taking on the role of supervisor for a master's degree program is not an easy task because it involves a grasp of how assistance for master's students may be effectively offered as part of a unique combination of competency frameworks, motivations, and what they can expect from the program (Fahrizal, 2021). In this context, ethical issues demand a balance between high expectations of conformity with study data, with expectations leading to high-quality results, and appropriate expectations based on correct evaluations of their skills given that unrealistic expectations might demotivate individuals (Samihardjo, 2021). This balance is necessary since unrealistic expectations can lead to low-quality results. Consideration should be given to the many notes, according to Marjan and Patricia, concerning the ethical burden that they bear in doing their own study in connection with the accomplishment of this thesis and also in connection with one another (Zanoni, et al., 2021).

According to Shinohara and Kenichi (Shinohara & Kenichi, 2022), Shinohara and Kenichi believe that strengthening the provisions on seniority rights that are owned will satisfy the unions. Despite the fact that seniority with such rights can be predicted that the provisions on these rights will cause controversy about how their judgment in assessing the ability of workers who seek a resolution of their disputes openly through further arbitration cases (Fahrizal, 2021), Shinohara and Kenichi believe that this will satisfy the unions (Shinohara & Kenichi, 2022). The new criteria that were established in published rulings for arbitration cases, such as the arbitration case that took place at Chevrolet Gear & Axle on December 30, 1941, clarified the competency standards by which competence was evaluated. These new criteria were used in situations involving arbitration. On August 15, 1941, the

complaint regarding competency was submitted, which ultimately resulted in the issue of the judgement. When the position of handling complaints is open in the company, the worker with the initials T was chosen due to his competency over the person with the initials M even though both workers had the same level of competence. Although M and T are equally capable of doing the task of addressing complaints, T has more experience in the field because complaints have been handled by them for a longer period of time. The arbitral judge in this case came to the conclusion that it was difficult to determine the subjective factor of ability because (Sutarna, 2021): (1) It is impossible to accurately evaluate the relative ability of each worker; (2) Personal assessment by field supervisors will always be accompanied by personal considerations; (3) Seniority, on the other hand, is a factor that clearly affects productivity; and (4) Several workers in the seniority assessment are selected because they have the seniority. In this case, the arbitral judge came to this conclusion because It is impossible to do.

According to Tryma (Tryma, 2021), at the beginning of the pandemic, the Ministry of Education and Science ignored detailed arrangements regarding the provisions for activities at universities. Instead, the Ministry of Education and Science emphasized the importance of collective proactive action from universities, in order to deal with certain conditions that arise during a pandemic. The Ministries of Education and Science in a number of countries rely on the autonomy and expertise of university management teams in order to ensure the development and operation of regulatory frameworks to deal with the pandemic and intensive communication both vertically and horizontally: they need to pay attention not only to the management of distance education but also to ensure the protection of dormitories, activities students, or student volunteer organization activities in order to deal with the pandemic and intensive communication both vertically and horizontally.

In the context of the COVID-2019 pandemic (Tryma, 2021), the administration of campus activities in such a manner has resulted in significant changes to educational and scientific pursuits, which are now more closely aligned with the requirements of pandemic response. Higher education as an institution that aspires to develop and distribute information as well as educate students for employment in the future is also equipped with a variety of social functions. Managing the chaos that management standards create in higher education is essential. In addition to their role as educational institutions, contemporary tertiary institutions also perform other duties that are, in a roundabout way, connected to the students' ability to continue their careers (Sutarna, 2021). The institution of higher learning is considered to be a social actor because the activities it engages in, among other things, are geared toward assuring the growth of social life (Rony, 2021). In order to accomplish this objective, institutions of higher education contribute to the academic diffusion of knowledge and the practical development of universities (Utami, 2021). Additionally, these institutions work to establish a society that possesses the essential knowledge and meet the demands of society's needs in the field of higher education. Because of the epidemic brought on by COVID-2019, the public sector, which has traditionally been responsible for a variety of social and cultural responsibilities, has

been tasked with a number of newly added responsibilities. Higher education has emerged as an extremely vital component of this public sector. As a result of the conditions brought on by the COVID-19 pandemic, colleges were compelled to quickly adjust to new kinds of organizational performance that were impacted by the pandemic's aftereffects.

Conclusion

Challenges and opportunities for human resource development in the era of industry 4.0, which indicate for adjustments in competence with advances in artificial intelligence through several kinds of quasi-experiments with the objective to find a strong level that moves to adjust the movement of artificial intelligence from a weak form to a strong artificial intelligence. The findings of the adjustments made to the process of determining the development of HR competency through the management of communication, collaboration, creativity, and innovation indicate that changes in competence from the past can be anticipated into new quasi-experimental forms that need to be prepared for and anticipated in order to accommodate further levels of demand.

References

Afiat, D. (2021, October 16). Standar Kompetensi Kerja Nasional Indonesia (SKKN) Jenjang Kualifikasi 8 dan 9. (A. Samad, Interviewer)

Andriyanty, R., Rafiq, M., & Rambey, T. (2023). Analisis strategi ekonomi kreatif KZ Studioberbasis gambar digitalmenuju niche market. *Mediastima*, 20-37.

Apriyanti, L., & Romli. (2022). Gaya kepemimpinan transformasional dan kompetensi pekerja berpengaruh pada peningkatan produktivitas karyawanPT. Adikarya Inti Solusi. *Medistima*, 143-580.

Arasaratnam-Smith, L., & Deardoff, D. (2023). *Developing Intercultural Competence in Higher Education, International Students' Stories and Self Reflection* (First Published ed.). New York: Routledge.

Asrarudin, A., & Dewi, D. (2021). Dampak Kecerdasan Emosional dan Modal Intelektual pada Produktivitas Belajar Online/Daring pada Masa Pandemi Covid-19 Mahasiswa Institut Bisnis dan Informatika Kosgoro 1957. *Mediastima*, 1-17.

Aweya, J. (2023). *Desighning Switch/Routers, Fundamental Concept and Design Methods* (First Edition ed.). Boca Raton London: CRC Press Taylor & Francis Group.

Belal, H., Shirahada, K., Kosaka, M., & Durowoju, A. (2023). *Knowledge in Servitization Management, A Comparative View* (First Publishing ed.). Cham, Switzerland: Palgrave Macmillan.

Blinder, C. (2022). From Fluency-Based Instruction to Accomplishment-Based Performance Improvement. In R. Houmanfar, M. Fryling, & M. Alavosius (Eds.),

Applied Behavior Scinece in Organization (pp. 81-96). New Your: Routledge Taylor & Francis Group.

Christie, C., & Alkin, M. (2023). An Evaluation Theory Three, A Framework for Guiding a Range of Evaluation Practice. In M. Alvin, & C. Christie (Eds.), *Evaluation Roots, Theory Influencing Practice* (p. 20). New York: Guilford Publication Inc.

Colwill, D. (2022). *Conflict, Power, and Organizational Change* (First Publishing ed.). New York: Routledge Taylor & Francis.

Del Prette, Z., & Del Prette, A. (2021). *Social Competence and Social Skills, A Theoritical and Practical Guide* (First Publication ed.). Cham Switzerland: Springer Natuure Switzerland.

Fahrizal, I. (2021, October 16). Standar Kompetensi Kerja Nasional Indonesia (SKKNI) Jenjang Kualifikasi 8 dan 9. (A. Samad, Interviewer)

Faisal, A., & Yulianto , k. (2023). Analisis random walksaham ANTMdi bursa efek Indonesia selama covid-19. *Mediastima*, 1 - 8.

Fujimura, C. (2022). Developing 3C in the Workplace and the Role of Communication. In F. Published (Ed.), *Developing Cross-Cultural Compentence for Leaders* (p. 70). New York: Routledge.

Gultom, R., Setyawan, I., & Laksono, R. (2023). Peran kepercayaan dalam memediasi efek persepsi kemudahandanpersepsi nilai digital pada niat penggunaan kontinu e-payment. *Mediastima*, 54-70.

Guvta, V. (2023). *Innovation Mechanisms in Start-ups, Practice, Strategies and Impacs* (First Publishing ed.). Cham Switzerland: Springer Nature Switzerland AG.

Houtman, I., Vanroelen, C., & Kraan, K. (2021). Increasing Work-Related Stress in the Netherlands and Belgium, How Do These Countries Cope? In K. Sharma, C. Cooper, & D. Pestonjee (Eds.), *Organizational Stress Around the World, Research andd Practice* (pp. 167-192). New York: Routledge.

IKADIM. (2021). *Konsep Standar Kompetensi Kerja Nasional Indonesia (SKKNI) Jenjang Kualifikasi 8 dan 9.* Jakarta: IKADIM.

Ismail, D. (2021, October 2021). Standar Kompetensi Kerja Nasional Indoneisa (SKKNI) Jenjang Kualifikasi 8 dan 9. (A. Samad, Interviewer)

Jain, S. (2019). *Research Methodology in Arts, Science and Humaties.* Oakville Canada: Society Publishing.

Johannessen, J.-A. (2021). *Artifical Intelligence, Automation andd The Future of Competence at Work* (First Publish ed.). Abindon, Oxon: Routledge.

Kaluza, G. (2022). *Calm and Confident Under Stress, The Stress Competence Book: Recognize, Understand, Manage Stress* (Seventh Edition ed.). Berlin: Springer-Verlag GmbH Germany.

Kosieradzka, A., & Rostek, K. (2021). Models of Process Maturity in Organization. In A. Kosieradzka, & K. Rostek (Eds.), *Process Management and Organization Process Maturity, Economic and Non-Economic Organization* (pp. 243-295). Charm Switzerland: Springer Nature Switzerland AG.

Laksono, R., Hasibuan, A., Sundara, D., Permatasari, N., & Saidih, R. (2020). IBI Kosgoro 1957 Student Entrepreneurship Assistance to increase the Bubble Pearl Business Scale in Depok. *Jurnal Pengabdian Teratai*, 153-170.

Maliszewska, J. (2023). *Managing Manufacturing Knowledge in Europe in the Era of Industry 4.0* (first Publishing ed.). Abingdon, Oxon: Routledge.

Mashudi. (2023, January 27). Pelatihan Trainier of Training / Master Training. (A. Samad, Interviewer)

Olsen, E. (2023). *Strategic Planning Kit For Dummies* (3rd Edition ed.). New Jersey: John Wiley & Son Inc.

Petersen, N. (2023). *Knowledge Communication in Global Organisation, Making Sense of Virtual Teams* (First Publishing ed.). New York: Routlledge Taylor and Francis.

Pratikno, Y. (2021, October 16). Standar Kompetensi Kerja Nasional Indonesia (SKKNI) Jenjang Kualifikasi 8 dan 9. (A. Samad, Interviewer)

Rony, Z. (2021, October 16). Standar Kompetensi Kerja Nasional Indoneisa (SKKNI) Jenjang Kualifikasi 8 dan 9. (A. Samad, Interviewer)

Samihardjo, I. (2021, October 16). Standar Kompetensi Kerja Nasional Indonesia (SKKNI) Jenjang Kualifikasi 8 dan 9. (A. Samad, Interviewer)

Shinohara, & Kenichi. (2022). *Work Organizational Reforms and Employment Relations in the Automotive Industry, American Employment Relation in Transition* (Fist Publishing ed.). Abingdon, Oxon: Routledge Taylor & Francis Group.

Somerset, N. (2023). *Competence, Conduct, and Billion Dollar Consequences, How Regulatory Strategy and Relationships can Improve Organisational Outcomes* (First Published ed.). New York: Routledge.

Sukemi. (2021, October 16). Standar Kompetensi Kerja Nasional Indonesia (SKKNI) Jenjang Kualifikasi 8 dan 9. (A. Samad, Interviewer)

Sutarna, A. (2021, October 16). Standar Kompetensi Kerja Nasional Indonesia.

Ten Have, W., Vernooij, C., & Stuijt, J. (2023). Model and methodology. In C. Vernooij, J. Stuijt, M. Hendriks, W. ten Have, & S. ten Have (Eds.), *Organizational Behaviour and Change Management* (pp. 11-29). New York: Routledge Taylor & Francis.

Troisi, R. (2023). *The Firm and Territory, An Organizational Perspective* (First Publish ed.). New York: Routledge Taylor & Francis.

Tryma, K. (2021). Covid-19 Infodemic and Social Responsibility of Ukrainian Hidger Education Institutions. In M. Bari, & E. Alaverdov (Eds.), *Impact of Infodemic on Organizational Performance* (pp. 226-257). USA: IGI GLobal.

Utama, Z. (2021, October 16). Standar Kompetensi Kerja Nasional Indonesia (SKKNI) Jenjang Kualifikasi 8 dan 9. (A. Samad, Interviewer)

Utami, S. (2021, October 16). Standar Kompetensi Kerja Nasional Indonesia (SKKNI) Jenjang Kualifikasi 8 dan 9.

Wess, R., Klock, H., Siller, H.-S., & Greefrath, G. (2021). *Measuring Profesional Competence for the Teaching of Mathematical Modelling* (First Publication ed.). Cham, Swithzerland: Springer Nature Switzerland.

Zaman, R., & Andriyani, R. (2022). Analisis pengembangan UMKM terhadap kesejahteraan nasiona. *Mediastima*, 96-114.

Zanoni, P., Coster, M., Laer, K., Bagaers, S., Decat, S., Scholz, F., . . . Zwaenepoel. (2021). Claiming a LIvable Academic Life as Critical Diversity Scholars. In S. Just, A. Risberg, & F. Villeseche (Eds.), *The Routledge Companion to Organizational Diversity Research Methods* (pp. 122-135). New York: Routledge Taylor & Francis Group.

Zhang, S. (2023). Integrating Culture in Language Curriculum from Beginning to Intermediate Level in a Blended Learning Environment. In E. Nemtchinova (Ed.), *Enghancing Beginner-Level Foreign Language Education for Adult Learrner, Language Instruction, Intercultural, Competence, Technology, and Assessment* (p. 76). New York: Routledge Taylor & Francis Group.