

Human resource competency 4.0 and its impact on Bank Indonesia employees' readiness for transformational change

Employees
of Bank
Indonesia and
their change

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Abstract

Purpose – The purpose of this paper is to analyze the influence of factors that affect human resource competency (HRC) 4.0, employee readiness for transformational change as well as analyzing the mediating and moderating factors that influence the relationship of factors such as soft skills training and individual characteristics on employee readiness for transformational change and HRC 4.0.

Design/methodology/approach – This research is a quantitative research with descriptive statistics. The analytical tool used is a structural equation model of partial least squares (PLS). This research was conducted at five Bank Indonesia Offices in Aceh and North Sumatra Provinces. Using a proportional random sampling technique, 200 respondents of employees were selected.

Findings – The results of this study are as follows: (1) both soft skill training and individual characteristics have a significant effect on HRC 4.0; (2) HRC 4.0, soft skill training and individual characteristic have a significant on employee readiness for transformational change; (3) soft skill training has significant effect on employee readiness for transformational change through HRC 4.0; (4) individual characteristic has a significant effect on employee readiness for transformational change through HRC 4.0; (5) the effect of HRC 4.0 on employee readiness for transformational change moderates by transformational leadership; (6) the effect of HRC 4.0 on employee readiness for transformational change moderates by employee commitment to change.

Originality/value – This research contains valuable novelty, which is a new concept of HRC 4.0 that is linked to soft skill training and individual characteristics variables, and employee readiness for transformational change. Furthermore, transformational leadership and employee commitment variables have significant effect in moderating the influence off HRC 4.0 on employee readiness for transformational change.

Keywords Human resource competency 4.0, Employee readiness, Transformational leadership, Soft skill training, Individual characteristics, Bank Indonesia

Paper type Research paper

1. Introduction

The Industrial Revolution (IR) 4.0 refers to the concept of interaction of machine to machine or humans and machines, the use of robots in the production process and operations, and the implementation of a smart computerized factory (Agolla, 2018). Companies must adapt to the various opportunities and challenges in this IR 4.0 era including for the Central Bank of Indonesia (BI) to continue in achieving company goals. The required changes due to any internal and external threats that may force the organization to do changes, one of them through the employee's transformation program. Beer and Nohria (2000) mentioned on the importance of the changes, and yet in most organizations, two out of three transformation plans fail to be implemented (Sirkin *et al.*, 2005), while Burnes (2009) mentioned the failure rates of between 60 and 90% when an organization implementing change programs. Moreover, the failure to implement change programs is partly due to the lack of agents of change in the organization and the absence of good change planning (Fanggidae *et al.*, 2016) and employees' unpreparedness in facing change and the high level of employees' resistance to changes (Burnes, 2009).



The implementation of changes relates to employees' beliefs, attitudes and intentions in making change (Armenakis and Fredenberger, 1997; Vakola, 2013). Meanwhile, the employees who are ready to face changes will be able to reduce the possibility of failure to implement a change (Franceline and Dahesiharsi, 2015). Organizations only change and act through their members, and successful change will only last in the long term when individuals are willing to change in a manner that is appropriate and have the required competencies for such change (George and Jones, 2001; Porras and Robertson, 1992).

Therefore, organizations must be quick to respond to global changes (Burke, 2011; Lo *et al.*, 2009). The employee commitment to change is one of ways of change which defined as a power (mindset) that binds individuals into actions deemed necessary for the successful implementation of change initiatives (Herscovitch and Meyer, 2002). The nature of commitment is important in explaining employees' willingness to change. Meanwhile, the ongoing commitment to change is negative or unrelated to desire, such as employee readiness to face change which is related to job performance (Meyer *et al.*, 2002; Parish *et al.*, 2008). However, Cunningham *et al.* (2002), Madsen *et al.* (2005), Rafferty and Simons (2006), and Cinite *et al.* (2009) emphasized that research on employee readiness for change focus on specific factors such as psychological, workplace, environmental, cultural and social factors but ignores employee commitment factors.

In fact, the transformational leaders can increase self-efficacy, and that they have a positive impact on employee readiness for change (Pillai and Williams, 2004), fostering employee readiness to change and motivating employees to act and support change (Faupel and Sub, 2018), and can inspire employees in increasing employee confidence and expectations (Martin and Epitropaki, 2001). It is concluded that transformational leadership reduces cynicism among employees toward organizational change (Avolio *et al.*, 2004) and the employees' readiness for change is influenced by transformational leadership (Al Tahitah *et al.*, 2018). Meanwhile, Choi and Ruona (2011) explain that organizational change can be successful if it is supported by leaders who are able to encourage change initiatives and can create a learning organizational culture for the organization they lead, while Faupel and Sub (2018) state that the success of change in organizations is not always due to factors' transformational leadership, but the success of organizational change is precisely influenced by the type of shared/distributed leadership.

Companies must invest in human resources by conducting education and training programs for employees that are useful for improving or even growing the four competencies particularly in facing this IR 4.0. Hecklau *et al.* (2016) mentioned several competencies needed the largest percentage including communication skills, coding skills and information systems, problem solving skills and creativity and innovation. In this study, the competence of human resources will be examined as a factor affecting employee readiness for transformational change. The active participation of employees who have good competencies is very useful for the success of changes that occur in the organization (Choi and Ruona, 2011). Knowledge and experience of change also have a positive influence on individual readiness for organizational change (Kapoor, 2005). Meliyanti (2015) explains that one of the factors that affect employee readiness for organizational change is the ability and expertise needed for the success of the change process, where ability and expertise are components of human resource competencies. Meanwhile, Rafferty and Simons (2006) explain that the individual ability factor is not a supporting factor for employee readiness for change, but trust in senior leaders is a major supporting factor for employee readiness for change.

Draganidis and Mentzas (2006) explain that competence is related to and influenced by individual characteristics consisting of attitudes, behaviors and physical abilities. Sudsakorn and Swierczek (2008) state that employees in Hong Kong have individual characteristics including task-oriented, assertive, aggressive and able to make their own decisions so that they have good work competence. Meanwhile, Suhartono (2017) explained that individual

characteristics do not significantly affect employee competence. However, individual characteristics are related to the readiness of employees to face organizational change. Holbeche (2005) explains that the main reason why change initiatives fail, is the inability of people to adjust their behavior, skills and commitment to the change.

In relation to the competency demands for the human resources, a training that focuses on soft skills is crucial. Soft skills refer to a complement to hard skills (individual IQ) which is a requirement for a job (Cimatti, 2016). The mentors or facilitators are able to enhance an individual's soft skills, which then can support individual growth and learning that improves the competence (Ciappei, 2015; John, 2010). Kanokorna and Sujanyac (2013) confirmed that soft skill through education and training is increasing a competency and development of basic ethical and professional values and also enhancing the ability for self-evaluation (Jindal-Snape and Naulty, 2009).

Podmetina *et al.* (2017) state that expertise in the context of competence can increase along with the implementation of appropriate training programs to increase these competencies. In general, soft skills training programs for Bank Indonesia's employees include certification of managerial and leadership integration, thematic training and general management competency development. Unfortunately, until now there has been no empirical study on the formulation of the concept of human resource competency (HRC) and HRC 4.0 on employee readiness for transformational change, as well as the role of transformational leadership and employee commitment to change in moderation and jointly, the relationship between HRC 4.0 and employee readiness for transformational change.

- (1) The dimensions of individual characteristics used are dimensions related to the context of the change itself.

Therefore, this research is relevant to be carried out to fill the existing business and empirical gaps and expectedly will enrich and develop theories of HRC that are more adaptative to the development of the IR era 4.0 which considered important factors such as soft skills training and individual characteristics, transformational leadership, employee commitment to change and employee readiness for transformational change. For the Bank Indonesia, they could come up with a policy on HRC 4.0 so that the organization can prepare its employees to face changes in the era of the IR 4.0. These include self-preparation of the employees such as improvement in knowledge, quality and capacity so as to be able to develop or maintain an organizational position.

The problem statement derived from previous studies and the gap that exists in terms of theories and concepts is presented in the Table 1 below:

Furthermore, this study focuses on several research problems which are formulated as follows:

- (1) Lack of training that focuses on developing soft skills tailored to the competency needs of human resources. 4.0
- (2) The concept of individual characteristics needs to be studied for its impact on the formation of human resource competencies 4.0 and employee readiness for transformational change.
- (3) HRC does not yet have a new theoretical approach that is adapted to the demands of employee competence in the era of the industrial revolution 4.0
- (4) Transformational leadership practices have not been fully implemented to support increased employee readiness for transformational change
- (5) Employee commitment to change has not been optimal in supporting increased employee readiness for transformational change

No.	Research gap	Authors
1	Not all dimensions in employee commitment to change can affect employee readiness for change The dimensions used are affective commitment to change, normative commitment to change and continuous commitment to change	Meyer <i>et al.</i> (2002), Parish <i>et al.</i> (2008), Soumyaja <i>et al.</i> (2015) and McKay (2012)
2	Difference in research results: Indicators used for employee readiness for change include appropriateness, change efficacy, management support and personal valence, while the current research focuses on using three dimensions, namely appropriateness, light efficacy and personal valence	Pillai and William (2004), Jones <i>et al.</i> (2008), Avolio <i>et al.</i> (2004), Faupel and Sub (2018), Martin and Epitropaki (2001), Al-Tahitah <i>et al.</i> (2018), and Choi and Ruona (2011)
3	There are still relatively few studies that integrate and connect the HRC variables, let alone HRC 4.0 which is a new competency concept formulated by researchers with the employee readiness variable for change	Hecklau <i>et al.</i> (2016), Sivathanu and Pillai (2018), Ulrich (1998), Wolf <i>et al.</i> (2018), Choi and Ruona (2011), Kapoor (2005), Meliyanti (2015), Rafferty and Simmons (2006), and Boyatzis (2008)
4	Difference in research results: Individual characteristics indicators used include age, gender, interests, attitudes, abilities and values, while this study uses indicators using internal factors that affect individuals in accepting change which consists of internal locus of control, attitudes toward change, the ability to deal with change and perceptions of change	Sudsakorn and Swierczek (2008), Holbeche (2005), Holt <i>et al.</i> (2007), and Musriha (2013)
5	Research on soft skills training is dominated by literature review research; there are still relatively few studies that integrate and connect the HRC variable 4.0 with soft skills training	Brodin (1999), Ciappei (2015), John (2010), Kanokorna and Sujanyac (2013), Jindal-Snape and Naulty (2009), and Podmetina <i>et al.</i> (2017)

Table 1.
Research gap and authors

- (6) There is no model for improving employee readiness for transformational change at Bank Indonesia.
- (7) The common method used are the structural equation model (SEM) and multiple regression.

The objectives of the study are as follows:

- (1) To analyze the influence of factors (soft skill training and individual characteristics) that affect HRC 4.0 and employee readiness for transformational change.
- (2) To analyze the influence of factors (soft skills training and individual characteristics) on employee readiness for transformational change through HRC 4.0
- (3) To analyze factors (transformational leadership and employee commitment) moderating HRC 4.0 on employee readiness for transformational change

2. Literature review

2.1 Force field theory

In this study, researchers used a theory of change, namely force field theory (Lewin, 1951). Force field theory states that change occurring because of pressure on the organization, individual or group that they want to do later will be faced with a reluctance to change, so it

needs to be managed properly. Change will always lead to pros and cons that need to be controlled so that the programs run by the organization can run and achieve the desired goals. Therefore, changes from internal and external to the organization need to be taken into account in planning so that when the plan is implemented, changes that may occur have been anticipated in advance. In calculating these changes, we need a tool that can measure and map changes and their strengths objectively.

2.2 Dynamic capabilities theory

According to Barney (1991), dynamic capabilities are a process that is embedded in the company, meaning that these values are already in the company in the form of internal competencies. While Eisenhardt and Martin (2000) mentioned that dynamic capabilities is the process of a company or organization that uses specific resources to match existing market changes in order to adapt to the dynamic changes that occur it can be said that dynamic capabilities are an evolutionary version of the resource-based view with internal and external approaches.

This continuous change is required by any of the companies regardless of their size and location. It has been discussed on the importance of sustainable competitive advantages that are based on a firm's unique organizational capabilities (Barney, 1991; Prahalad and Hamel, 1990; Nelson, 1991). This idea was developed into the dynamic capabilities concept, of which fundamentals were introduced in the works of Nelson (1991), Kogut and Zander (1992), Amit and Schoemaker (1993), Teece and Pisano (1994), Henderson and Cockburn (1994) and Teece *et al.* (1997). The intensive discussion of this concept continues in the recent publications (Blyler and Coff, 2003; Zott, 2003; Prieto *et al.*, 2005; Pavlou and El Sawy, 2006).

Moreover, the discussion of human aspects of organizational readiness for change occupies a key position in the contemporary organizational change literature (Kotter, 1995; Duck, 2001; Miller, 2004; Jones *et al.*, 2005). More precisely, personnel resistance is widely discussed as the most important reason for the failure of change programs (Piderit, 2000; Cunningham *et al.*, 2002; Sevier, 2003). Indeed, personnel readiness for change, having both needed skills and good will, provides a significant input into organizational change capability. Dynamic capabilities really need to be improved by the company in order to be able to provide adjustments and adaptations to the dynamic changes that will occur (Teece, 2014).

Moreover, dynamic capability theory is related to the company's ability to integrate, build and reconfigure internal and external competencies to deal with a rapidly changing environment (Teece *et al.*, 1997), which is experienced by Bank Indonesia, thus formulating and adapting the transformation program. Of the ability of Bank Indonesia in adapting the changes with the support of its quality of internal competencies, one is having competent human resources. So in this case, the formulation of HRC 4.0 is supported by dynamic capability theory, whereby the human resource competencies are formulated based on the demands of adapting to the changes in the IR era.

The approach used in this study is the organizational behavior science approach, especially in the field of change management and organizational change with the main study of variables which include soft skills training, individual competence, HRC 4.0, transformational leadership, and employee commitment to changes that will affect employee readiness for transformational change. This study also summarizes previous studies on human resources competencies and change as shown in below Table 2:

2.3 Soft skills training and human resource competencies (HRC) 4.0

HRC 4.0 can be influenced by several variables such as training. Training according to Dessler (2013) is the process of teaching new or existing employees the basic skills they need to carry out their jobs. Ulrich *et al.* (2010) stated that for professional and competent human

Title	Author/Year
Human resource management: metastudy – analysis of future competence in industry 4.0	Hecklau <i>et al.</i> (2016)
Readiness for change: the case of performance management in the ministry of national education, Indonesia	Meliyanti (2015)
Antecedents of employee readiness for change: mediating effect of commitment to change	Soumyaja <i>et al.</i> (2015)
A study of change readiness: factors that influence the readiness of frontline workers toward a nursing home transformational change initiative	Barber (2010)
A multilevel approach to individual readiness to change	Desplaces (2005)
The effect of affective commitment, communication and participation on resistance to change: the role of change readiness	McKay <i>et al.</i> (2013)
Relationship between employee readiness for organizational change, supervisor and peer relations and demography	Shah and Shah (2010)
HRM in the knowledge age: current practice and perspective on the future	Despres and Hiltrop (1995)
Leadership effectiveness, leadership style and employee readiness	Chen and Silverthorne (2004)
Effective HRM in the steel industry	Andresen and Kleiner (2005)
Current and future industrial challenges: demographic change and measures for elderly workers in industry 4.0	Wolf <i>et al.</i> (2018)
The future of human resources in the smart machine age: HR will become human development	
The human factor in industrial disaster	Granot, Hayim (1998)
Change leadership and employees' commitment to change: a multilevel motivation approach	
Change readiness factors influencing employees' readiness for change within an organization: a systematic review	
The factors effecting employee commitment to change in the public sector: evidence from Yemen	Gelaidan and Ahmad (2013)
Smart HR 4.0 – how industry 4.0 is disrupting HR	Sivathanu and Pillai (2018)
Capital in the smart manufacturing and industry 4.0 revolution	Agolla (2018)
Management approaches for industry 4.0: a human resource management perspective	Shamim <i>et al.</i> (2016)
Organizational change and industry 4.0: a perspective on possible future challenges for human resources management	Radel (2017)
The role of knowledge-oriented leadership in knowledge management and innovation	Donate and De pablo (2015)
An examination of the antecedents of readiness for fine-tuning and corporate transformation changes	Rafferty and Simmons (2006)
Individual and organizational health-oriented readiness for change: conceptualization and validation of a measure within a large-scale comprehensive stress management intervention	Mueller <i>et al.</i> (2012)
Readiness for organizational change: a study of the effects of individual and organizational factors	Kapoor (2005)
Individual readiness for organizational change and its implications for human resource and organization development	Choi and Ruona (2011)
Readiness to change overtime: change commitment and change efficacy in a workplace – health promotion trial	Helfrich <i>et al.</i> (2018)
Enabling organizational change leadership, commitment to change and the mediating role of change readiness	
Individual attributes of change readiness: a case study at Indonesia's state-owned railway company	Hotmaidah (2015)

Table 2.
Titles of previous studies on human resources competencies and change

(continued)

Title	Author/Year
Openness, transformational leadership and individual change readiness	Streb (2015)
The effect of transformational leadership on employees during organizational change	Faupel and Sub (2018)
Antecedent of HR competencies and job performance: required IT competencies for HR professional in the digital era	Yue <i>et al.</i> (2011)
Competence development in the workplace: concepts, strategies and effects	Ellstorm and Kock (2008)
Managers' readiness for organizational change: exploring the intercultural competence connection	Erosa and García (2015)
The effect of competence on commitment, performance and satisfaction with reward as a moderating variable (A Study on Designing Work plans in Kendari City Government, Southeast Sulawesi)	Lotunani <i>et al.</i> (2014)

Table 2.

resource management, companies need to continue to design training and development with methods and materials that are accurate and in accordance with the times while Ellstorm and Kock (2008) stated that companies need to develop training programs to complement employee education in order to have competencies that continue to develop in accordance with the changes that occur.

The concept of managerial competence focuses more on the behavioral approach and managerial personality that companies need to support company stability and sustainability in the midst of changes caused by globalization, the development of the IR and hypercompetitive competition (Boyatzis, 2008).

Ezhilan and Renuga (2013) state that soft skill training is an important thing that companies must do and is aimed to improve the competence of human resources to be able to work smart while controlling the emotional level. The success of soft skill training will have an impact on increasing proficiency in a skill that is very important for the suitability of the competencies needed for a job (Laker and Powell, 2011). The development of interpersonal skills in management programs can improve leadership competencies, negotiation and communication skills (Hunt and Baruch, 2003).

Moreover, the soft skill training is an exogenous variable in this study that affects HRC 4.0. This referred to the dimensions and indicators in HRC 4.0 which relate the soft skills context to the aspects of critical thinking skills, communication skills, quality decision making and others. Borghans *et al.* (2014) state that researchers or companies have difficulty in measuring soft skills accurately, because only few empirical research studies examine the consequences of soft skills in increasing HRC. Thus the proposed hypothesis is as follows:

H1. Soft skill training has a positive and significant effect on human resource competence. 4.0.

2.4 Individual characteristics and HRC 4.0

HRC is very important to match the demands and needs of the IR 4.0. Boyatzis (2008) explains that competence is the capacity that a person has that can make that person able to fulfill what is required in an organization so that he/she is able to achieve the expected results. Competence is considered as an attribute of employees, namely, human capital or human resources that can be translated into competence and performance (Ellstrom and Kock, 2008). Draganidis and Mentzas (2006) explain that competence is related to and influenced by individual characteristics consisting of attitudes, behaviors and physical abilities. Meanwhile, competence also refers to a set of individual characteristics that can improve performance (Cardy and Selvarajan 2006; Boyatzis, 2008).

One of the factors that affect HRC is the individual characteristics possessed. The results of [Musriha's \(2013\)](#) study explain that individual characteristics are a determining factor for the quality of competence and performance of an employee. Individual characteristics, according to [Stoner \(1986\)](#), are the desires, attitudes and needs of a person who are brought into the work situation. Furthermore, [Robbins \(1996\)](#) added that the variables at the individual level include biographical characteristics, abilities, personality and learning which affect employee motivation, initiative, competence and performance. Thus the proposed hypothesis is as follows:

- H2.* Individual characteristics have a positive and significant effect on human resource competence 4.0.

2.5 HRC 4.0 and employee readiness for transformational change

Human resource competence 4.0 is a broad term that encompasses all aspects of HRC. What makes it unique is that HRC 4.0 is the submission of a new conception of human resource skills based on the competencies that human resource professionals must possess in order to succeed in the fourth industrial revolution.

The types of competences, skills and personal abilities needed for the 4.0 IR, namely the ability of a person to act reflectively and independently. Organizations are faced with changes in line with the work carried out by employees, so that employees in every industrial sector in the 4.0 IR are required to be able to adapt to changes that occur in an organization internally and externally ([Agolla, 2018](#)). Individuals in organizations are currently required to have competencies that are in accordance with current business developments ([Adiratna, 2018](#)).

Social/interpersonal competencies are needed for employees, such as the ability to communicate, work together and build social relationships ([Lanza, 2015](#)). Individuals react to change in various ways. The readiness of employees to face change is also related to the psychological aspects of employees, individual intelligence abilities and competence related to aspects of the changes that occur ([Barber, 2010](#)). Assessment of employee competencies must be carried out so that the organization can analyze and equip employees with the required competencies. Competence has the effect of shaping employee readiness for changes faced in the world of work ([Brodin, 1999](#)). Thus the proposed hypothesis is as follows:

- H3.* HRC 4.0 has a positive and significant effect on employee readiness for transformational change.

2.6 Soft skill training and employee readiness for transformational change

Every change will inevitably lead to certain attitudes and reactions from each individual, and the attitudes and reactions displayed will affect the process of change. According to [Desplaces \(2005\)](#), the readiness of individuals to face change will be the driving force to makes changes that will give positive results. Moreover, the readiness of individuals to face change will affect the mindset, feelings and concerns of individuals as reflected in their attitudes and behavior. To have employees who are ready to face change, the organization is required to design an effective training program in accordance with the demands of change.

Training is a process by which people achieve certain abilities to achieve organizational goals. Some actions to build employee change readiness include developing work methods, work media and the latest information for employees from various lines. Organizations must increase employee engagement, provide training and improve employee communication skills. Well-trained employees will help to adapt and develop during change ([Watson, 2013](#)). Soft skill training helps increase employee understanding and improvement which is useful

for increasing employee readiness for change which is ultimately useful for improving company performance (Gardner, 2017). Thus the proposed hypothesis is as follows:

H4. Soft skill training has a positive and significant effect on employee readiness for transformational change.

2.7 Individual characteristics and employee readiness for transformational change

Individual characteristics are characteristics that indicate a person's differences regarding motivation, initiative and the ability to remain strong in facing a task to completion or solve problems or how to adjust to changes that are closely related to the environment that affect individual performance. Previous studies have confirmed that employees' attitudes and behavioral reactions to change are major factors in their success (Shin *et al.*, 2012). Holt *et al.* (2007) conceptualize the antecedents of readiness for change in context, content, processes and individual factors. Meanwhile, Soumyaja *et al.* (2011) state that the independent variables of participation, intelligence and communication quality affect employee readiness to change. Individual characteristics have an effect on employee readiness for change within the company (Wittenstein, 2008). Thus the proposed hypothesis is as follows:

H5. Individual characteristics have a positive and significant effect on employee readiness for transformational change.

2.8 Soft skill training, employee readiness for transformational change and human resource competencies 4.0

Employees need to be given training so that employees can improve their competencies in their work. One of them is by attending a job training that expected to improve the soft skills of employees in accordance to the company needs. This is asserted by Ezhilan and Renuga (2013) that the effectiveness of soft skills training programs can increase the skills, knowledge and abilities of an employee which in turn helps them prepare themselves to face organizational changes.

Ezhilan and Renuga (2013) say that the efficacy of soft skills training programs may help employees develop their skills, knowledge and talents, thus enabling them to adapt to organizational changes and achieve success at work. Additionally, Bosch (2017) discovered a significant gap between the skills possessed by college graduates in the USA and the expertise required by businesses. Soft skills training are considered as required competencies that include the following: work behavior, communication skills, teamwork, interpersonal skills and instructions for using media. This being recognized that the readiness of graduates with various skills is crucial. These are called as soft skills which are needed to have changes (Sharma, 2018). The change becomes a difficult thing for a company if its employees are not prepared for any changes. Individual factors consist of a person's creative behavior, and intelligence levels have an influence on employee readiness for change (Soumyaja *et al.*, 2015). Thus the proposed hypothesis is as follows:

H6. Soft skill training has a positive and significant effect on employee readiness for transformational change through HRC 4.0.

2.9 Individual characteristics, employee readiness for transformational change and human resource competencies 4.0

Individual characteristics are internal factors that influence individuals. According to Ribhan (2008), individual characteristics can be seen from their expertise, education and work experience. Everyone has different views, goals, needs and abilities from one another. Meanwhile, Dewey (2002) states that the component of individual characteristics of age, education and work experience are the forms of acquiring knowledge or skills which enhance the competencies of employees. This determines the readiness or unpreparedness of an

employee in facing changes that arise in their works. Employees who have individual characteristics who believe in the ability to carry out their work will find it easier to improve the competence of these individuals as an effort to gain readiness to face change (Vakola, 2014). With these, the proposed hypothesis is as follows:

H7. Individual characteristics affect employee readiness for transformational change through HRC 4.0.

2.10 HRC 4.0, employee readiness for transformational change and transformational leadership

According to Bass (1999), transformational leadership is a leadership model that is able to motivate, change behavior patterns, give trust, instill organizational values and convince followers of their leadership abilities, so that their personal interests and goals are in line with the organizational vision. Transformational leadership has four dimensions, namely idealized influence or charisma, inspirational motivation, intellectual stimulation and individualized consideration (Bass, 1999).

Competencies consisting of result orientation, ability to analyze and solve complex problems, and high social sensitivity and integrity have a significant influence on transformational leadership (Sona *et al.*, 2016). Emotional intelligence competencies also have a positive and significant effect on transformational leadership (Hatfield, 2009). Research conducted by Chaterine *et al.* (2018) states that there is a significant positive relationship between transformational leadership and readiness for change. Readiness to change is a comprehensive attitude that is influenced simultaneously by content, process, context and individual involvement in the organization. Readiness to change reflects the extent to which individuals are cognitively and emotionally willing to accept and adopt a change plan. Research conducted by Prasetia (2015) found that based on the results of the regression analysis, transformational leadership and psychological climate had a positive and significant effect on readiness to change. Meanwhile, research by Al Tahitah *et al.* (2018) stated that transformational leadership has a positive and significant effect on employee readiness for change. With these, the proposed hypothesis is as follows:

H8. Transformational leadership moderates HRC 4.0 on employee readiness for transformational change.

2.11 HRC 4.0, employee readiness for transformational change and employee commitment to change

Change has become a cycle that must be passed for organizational life. The causes of continuous change can be due to the rapid rate of global development, newfound business risks, exciting opportunities, innovation and new leadership systems (Madsen *et al.*, 2005). Change is a phenomenon faced by individuals and organizations in everyday life (Battilana *et al.*, 2010).

Becker (1996) states that commitment is a determinant variable in measuring the impact of organizational change due to the strong relationship between employees and the organization. Competencies related to behavior have a significant effect on employee commitment to the organization (Heinsmen *et al.*, 2008). Based on the data analysis conducted by Pramadani and Fajrianthi (2012), it can be concluded that there is a significant relationship between organizational commitment, especially affective commitment and normative commitment, with the readiness to change in employees. The research results of Soumyaja *et al.* (2015) found that affective commitment to change has an influence on employee readiness for change. Based on the organizational transformation that occurred at Bank Indonesia, it required employees to make changes to their organizations; these changes were

shown in the form of commitment to their organizations. Research conducted by [McKay et al. \(2013\)](#) found that affective commitment was positively related to all dimensions of readiness to change except for management support. The results of this study support the idea that affective commitment has an important role as an antecedent to employee readiness for change. With these, the proposed hypothesis is as follows:

- H9. Employee commitment to change moderates HRC 4.0 on employee readiness for transformational change.

3. Methodology

This research is a quantitative research with descriptive statistics. The analytical tool used is an SEM of partial least squares (PLS). Quantitative testing is carried out to test field data taken based on theoretical and empirical studies, test the validity and reliability of the relationship between indicators and latent variables (outer model or measurement model) and the relationship between variables which ends by testing the research hypothesis (the inner model or structural model).

Multivariate quantitative analysis was performed using an SEM based on PLS. The advantages of using PLS are that it can be used for analysis on variables with reflective and formative indicators, and can be used to analyze the relationship between variables with small samples ([Hair et al., 2014](#)).

Upon collection responded on the distributed questionnaires, the descriptive analysis will be conducted, followed by the outer model evaluation that consists of validity and reliability tests. Then the inner model is run to see and test the relationship of each variable (direct and indirect effect) which include the moderating test. The results will be revealed when all mentioned processes are done.

3.1 Population and sample

The population of this study was all Bank Indonesia's employees in the Aceh – North Sumatra Province of the Banda Aceh, Lhokseumawe, Medan, Sibolga, Pematang Siantar Bank Indonesia Offices, with 515 employees consist of permanent and outsourcing employees. This study uses the SEM of PLS with maximum likelihood option with sample size of the study being 200 employees of Bank Indonesia in Aceh and North Sumatra Provinces using a proportional random sampling technique. The selected respondents as the sample of this study consist of 34 (Pematang Siantar Office); 25 (Sibolga Office); 76 (Medan Office); 36 (Aceh Office); and 29 (Lhokseumawe Office) with a total of 200 respondents.

3.2 Data collection method

This study used an administrated questionnaire (a structured form that consists of a series of closed-ended and open-ended questions which has been filled up by the respondents themselves) and collected all 200 questionnaires from various branches/cities where Bank Indonesia is located.

The variable measurement technique uses a Likert scale using 5 (five) scales. Generally, the scale used in making measurements consists of five points. This study uses a five-point scale consisting of "Strongly Disagree", "Disagree", "Neutral", "Agree" and "Strongly Agree". At least there is a reason for using a five-point scale that a seven-point, nine-point and 13-point scale will make it difficult for respondents to distinguish between each point of the scale, and respondents will find it difficult to process information ([Hair et al., 2007](#)).

3.3 Variable indicators of the study

Below are the indicators of each variable along with each reference from previous research studies (see Table 3).

4. Data analysis

4.1 Inner model equations

The inner model equation in this study is a model design for the relationship between variables, which is divided into direct and indirect relationships. The inner model equation in this study is divided into direct models and indirect models:

4.1.1 Direct model.

$$Z = \lambda_1 X_1 + \lambda_2 X_2$$

$$Y = \beta_1 X_1 + \beta_2 X_2$$

$$Y = \lambda_1 X_1 + \lambda_2 X_2 + \lambda_3 Z$$

4.1.2 Indirect model.

$$Y = \lambda_1 X_1 + \rho Z$$

$$Y = \lambda_2 X_2 + \rho Z$$

$$Y = \lambda_1 X_1 + \lambda_2 X_2 + \rho Z + \beta Z M_1 + \beta Z M_2$$

Variable	Dimension	No. Items	Reference
Soft skill training	Reaction	4	Gardner (2017), Borghans <i>et al.</i> (2014)
	Learning	3	
	Behavior	3	
	Output	3	
Individual characteristics	Location of internal controls	3	Ribhan (2008)
	Attitude to change	3	
	Perception of change	4	
HRC 4.0	Core value competencies	5	Boyatzis (2008)
	Core competencies	5	
	Managerial competence	5	
Transformational leadership	Idealized influence	5	Bass (1999)
	Inspirational motivation	3	
	Individualized consideration	3	
	Intellectual stimulation	3	
Employee commitment to change	Affective commitment to change	4	Herscovitch and Meyer (2002)
	Normative commitment to change	3	
	An ongoing commitment to change	3	
Employee readiness for transformational change	Appropriateness	2	Holt <i>et al.</i> (2007)
	Change efficacy	3	
	Personal valence	3	

Table 3. Variables and indicators of the study

4.2 Descriptive statistical analysis

The research subjects used in this study were Bank Indonesia Representative Offices in Aceh and North Sumatra Provinces. Respondents in this study were organic employees of Bank Indonesia. The research data were collected by distributing questionnaires to the organic, Bank Indonesia's employees at the five designated Bank Indonesia Representative Offices.

The above table, Table 4 explains that the majority of respondents of 46% are with age between 30 and 39, and 30.5% are with age between 20 and 29 years. This group of age is known as the most productive age in works as well as having a career ladder to reach to the highest position. Based on education level, 76.5% of the respondents are with a bachelor degree (S1) certificate and 23.5% of respondents, of master degree (S2). This is due to the employees' education qualification at Bank Indonesia selectively with a minimum of a bachelor's degree. Meanwhile, majority of respondents with 74% are male, and the rest of 26% are female; then, majority of 59 (29.5%) respondents are with an experience working for 5–10 years with the Bank Indonesia and 52 (26%) respondents with 1–5 years. The last characteristic of respondents is based on the participation in soft skills training. There are 172 employees (86%) respondents/employees and 28 employees (14%) who have never attended soft skills training.

4.3 Outer model evaluation (the measurement model)

The outer model consists of convergent validity, discriminant validity and composite reliability.

4.3.1 Composite reliability and convergent validity. The measure of the internal consistency or reliability of the composite is the composite alpha value. This value is used to assess the

Description		Total (f)	Percentage (%)
Location of Bank Indonesia Office	Aceh	43	21.5
	Lhokseumawe	34	17
	Medan	55	27.5
	Pematang Siantar	39	19.5
	Sibolga	29	14.5
	<i>Total</i>	<i>200</i>	<i>100</i>
Age	Between 20 and 29 years	61	30.5
	Between 30 and 39 years	92	46
	Above 40 years	47	23.5
	<i>Total</i>	<i>200</i>	<i>100</i>
Education level	S-1 (Bachelor degree)	153	76.5
	S-2 (Master degree)	47	23.5
	S-3 (Doctoral degree)	–	–
	<i>Total</i>	<i>200</i>	<i>100</i>
Gender	Male	148	74
	Female	52	26
	<i>Total</i>	<i>200</i>	<i>100</i>
Length of work	Between 1 and 5 years	52	26
	Between 5 and 10 years	59	29.5
	Between 10 and 15 years	23	11.5
	Between 15 and 20 years	48	24
	Above 20 years	18	9
	<i>Total</i>	<i>200</i>	<i>100</i>
Attending soft skill training	Ever	172	86
	Never	28	14
	<i>Total</i>	<i>200</i>	<i>100</i>

Source(s): Primary Data Processed (2020)

Table 4.
Descriptive statistics

reliability of the construction. Constructing reliability coefficients for all values must exceed 0.70 (Hair *et al.*, 2012). However, Nunnally (1973) and Srinivasan (1985) state that a value of 0.50 is acceptable for the development of the initial construction. The composite reliability and Cronbach's Alfa (CA) value for the constructs in this study, calculated using the SmartPLS software are as follows:

The recommended CA value is above 0.7 (Hair *et al.*, 2014). Based on Table 5 above, all CA values are > 0.7, which means that they have met the reliability requirements based on CA. Meanwhile, the composite reliability values of all variables are above 0.70 which means it has fulfilled reliability requirements based on CR.

Moreover, based on Confirmatory Factor Analysis (CFA) factor loading of each indicators of all variables (see Appendix 1), it is known that all loading values are above 0.7, which means that they have met the validity requirements based on the loading size. Below are the dimensions and indicators that stated representation of each variable:

- (1) Soft skill training variables consist of 4 dimensions, 13 indicators and 21 statements on the questionnaire.
- (2) Individual characteristic variables consist of 3 dimensions, 9 indicators and 11 statements on the questionnaire.
- (3) The HRC variable 4.0 consists of 3 dimensions, 15 indicators and 24 statements in the questionnaire.
- (4) The employee commitment to change variable consists of 3 dimensions, 9 indicators and 11 statements in the questionnaire.
- (5) The transformational leadership variable consists of 4 dimensions, 14 indicators and 23 statements on the questionnaire.
- (6) The transformational leadership variable consists of 3 dimensions, 8 indicators and 16 statements on the questionnaire.

Furthermore, a path diagram is presented based on the loading factor value as follows (see Figure 1):

4.3.2 *Square root of Average Variance Extracted (AVE)*. The recommended AVE value is above 0.5 (Hair *et al.*, 2016). If the AVE value is greater than 0.5 then discriminant validity is considered good (see Table 6). The following is the AVE value of this study:

The recommended AVE value is above 0.5 (Hair *et al.*, 2016). It is found that all AVE values are > 0.5, which means that they have met the validity requirements based on the AVE.

4.3.3 *Discriminant validity*. In discriminant validity testing, the value of the square root AVE of a latent variable is compared with the correlation value between the latent variable and other latent variables. The results of the discriminant validity testing in this study are as follows:

	Cronbach's Alpha	Composite reliability
Soft skill training/PS (X1)	0.978	0.979
Individual characteristics/KI (X2)	0.961	0.966
Employee commitment To change/KPP (M1)	0.977	0.980
Transformational leadership/KT (M2)	0.992	0.992
Employee readiness for transformational change/KPT (Y)	0.979	0.981
Human resource competence 4.0/KSDM (Z)	0.983	0.984

Table 5.
Reliability test based on CA

Employees of Bank Indonesia and their change

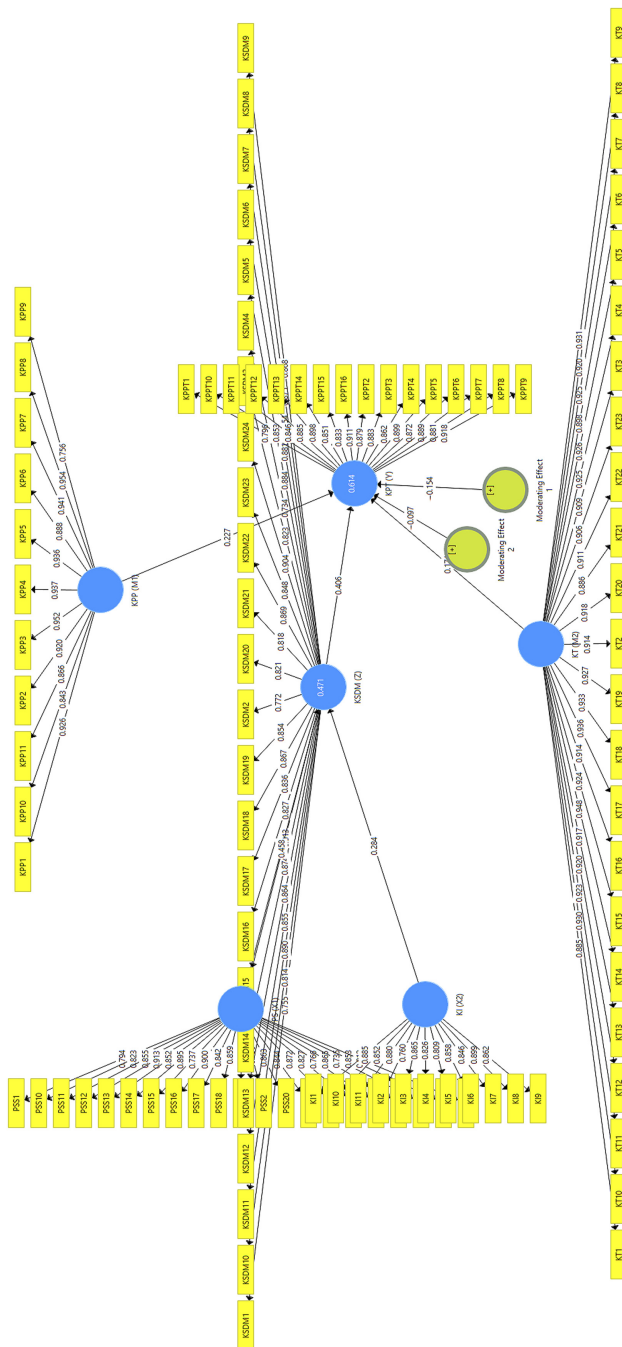


Figure 1.
Validity based on Loading

From Table 7 it can be seen that the square root value of the AVE for each latent variable is greater than the correlation value between these latent variables and other latent variables. So it is concluded that this study has met the requirements of discriminant validity.

4.3.4 *The R square model.* Based on Table 8, it can be seen that the coefficient of determination for the latent variable of HRC 4.0 (Z) is 0.470, which means that soft skill training (X1) and individual characteristics (X2) are able to affect HRC 4.0 (Z) of 47%. Furthermore, the coefficient of determination for the latent variable of employee readiness for transformational change (Y) is 0.636, which means that soft skills training (X1), individual characteristics (X2) and HRC 4.0 (Z) can influence employee readiness for transformational change (Y) of 63.6%. It can be stated that the employee readiness model for transformational change which developed in this study is good. This means that 63.6% of employees' readiness for transformational change in Bank Indonesia's employees in North Sumatra and Aceh Provinces is developed by soft skills training, individual characteristics and human resource competencies 4.0 factors.

4.3.5 *Hypothesis testing (the inner model).* The results of the outer model test show that it has met the validity and reliability requirements. Furthermore, the inner model testing is carried out, which includes the direct effect significance test and the indirect effect significance test/effect of moderation (indirect effect). The inner model in this study is shown in the path diagram as follows:

The results of the direct effect significance test in Figure 2 are described in Table 9 below to answer the research hypothesis for direct effect.

4.3.5.1 *Direct effect between research variables.* Table 9 will show the results of the direct influence between variables to answer the research hypothesis.

Table 6.
The validity test based on the AVE

	Average variance extracted (AVE)
Soft skill training	0.695
Individual characteristics	0.723
Employee commitment to change	0.816
Transformational leadership	0.844
Employee readiness for transformational change	0.762
Human resource competence 4.0	0.717

Table 7.
The discriminant validity test

	KI (X2)	KPP (M1)	KPPT (Y)	KSDM (Z)	KT (M2)	PS (X1)
KI (X2)	0.850					
KPP (M1)	0.419	0.904				
KPT (Y)	0.718	0.502	0.873			
KSDM (Z)	0.603	0.416	0.639	0.847		
KT (M2)	0.336	0.360	0.397	0.276	0.919	
PS (X1)	0.696	0.458	0.721	0.656	0.302	0.834

Table 8.
R-square

	R-square	R-square adjusted
Employee readiness for transformational change/KPPT (Y)	0.636	0.630
HRC 4.0/KSDM (Z)	0.470	0.465

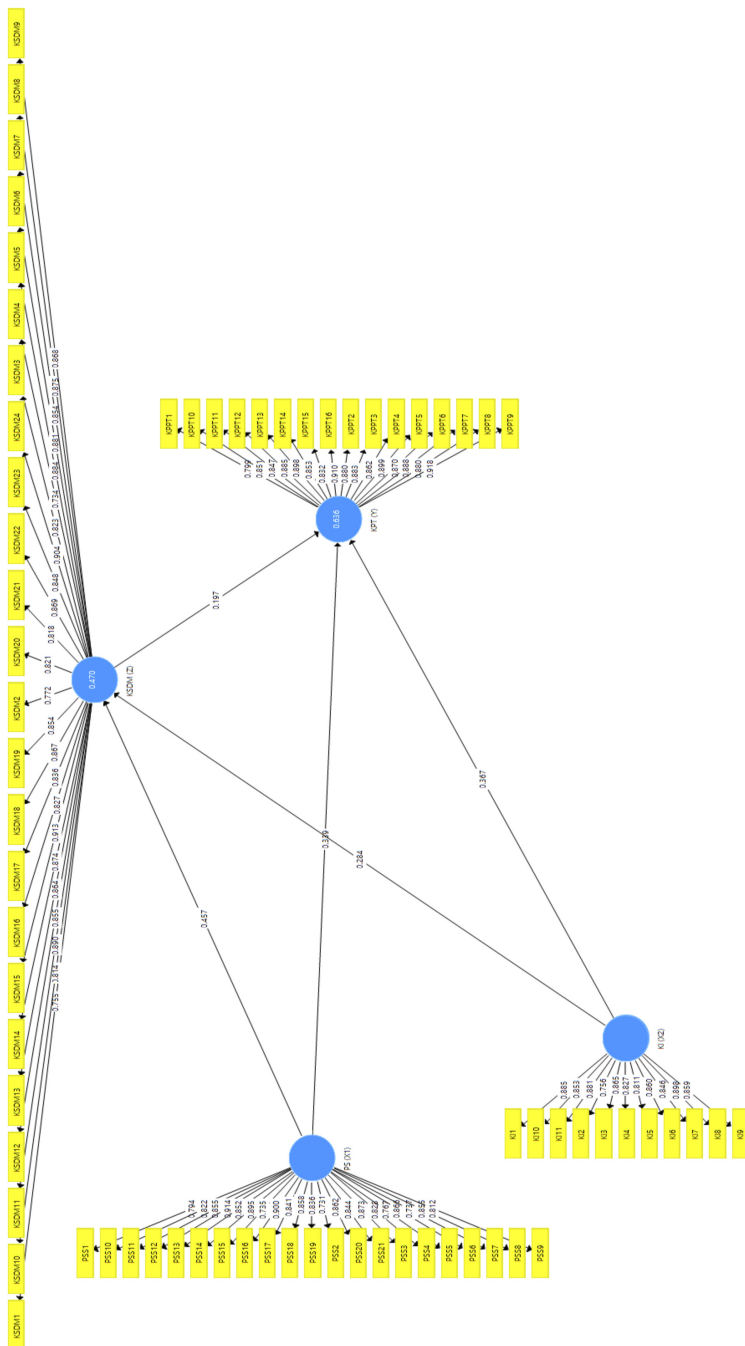


Figure 2.
Significance testing
(direct effect)

The direct influence between the variables can be seen in Table 5.31 and Figure 5.23 by seeing the column of *p*-value. Based on the significance level of 0.005, if the *p*-value is smaller than 0.05, then the relationship between variables is considered significant. Meanwhile, to see the coefficient of each variable and the direction of the relationship, it presented in the original sample column (*O*).

Based on the results in Table 4.6, the results obtained are as follows:

- (1) Soft skill training (*X1*) has a positive effect on HRC 4.0 (*Z*) with a path coefficient value of 0.457 (the original sample column) and significant with a *p*-value of $0.001 < 0.05$.
- (2) Individual characteristics (*X2*) has a positive effect on HRC 4.0 (*Z*) with a path coefficient value of 0.284 (the original sample column) and significant with a *p*-value of $0.049 < 0.05$.
- (3) Soft skills training (*X1*) has a positive effect on employee readiness for transformational change (*Y*) with a path coefficient value of 0.339 (the original sample column) and is significant with a *p*-value of $0.015 < 0.05$.
- (4) Individual characteristics (*X2*) has a positive effect on employee readiness for transformational change (*Y*) with a path coefficient of 0.367 (the original sample column) and is significant with a *p*-value of $0.012 < 0.05$.
- (5) HRC 4.0 (*Z*) has a positive effect on employee readiness for transformational change (*Y*) with a path coefficient value of 0.197 (the original sample column) and is significant with a *p*-value of $0.044 < 0.05$.

4.3.5.2 Indirect effect between research variables. The following table, Table 10 will show the results of the indirect effect between variables to answer the research hypothesis.

Based on Table 10, the results of research to answer the hypotheses contained in the previous chapter are as follows:

The indirect effect of soft skills training (*X1*) on employee readiness for transformational change (*Y*), through HRC 4.0 (*Z*) is 0.419 and significant with a *p*-value of $0.000 < 0.05$. In other words, HRC (*Z*) is significant in mediating the relationship between soft skills training (*X1*)

Table 9.
Path coefficient value and *p*-value (the significance test of direct effect)

	Original sample (<i>O</i>)	Sample mean (<i>M</i>)	Standard deviation (STDEV)	<i>T</i> -statistics ($(O/STDEV)$)	<i>p</i> -values
KI (<i>X2</i>) → KPT (<i>Y</i>)	0.367	0.383	0.145	2.536	0.012
KI (<i>X2</i>) → KSDM (<i>Z</i>)	0.284	0.287	0.144	1.975	0.049
KSDM (<i>Z</i>) → KPPT (<i>Y</i>)	0.197	0.183	0.097	2.017	0.044
PS (<i>X1</i>) → KPPT (<i>Y</i>)	0.339	0.331	0.138	2.453	0.015
PS (<i>X1</i>) → KSDM (<i>Z</i>)	0.457	0.457	0.136	3.358	0.001

Source(s): Data processed PLS (2020)

Table 10.
Path coefficient value and *p*-value (the significance test of direct indirect effects)

	Original sample (<i>O</i>)	Sample mean (<i>M</i>)	Standard deviation (STDEV)	<i>T</i> -statistics ($(O/STDEV)$)	<i>p</i> -values
PS (<i>X1</i>) → KSDM (<i>Z</i>) → KPPT (<i>Y</i>)	0.419	0.427	0.106	3.969	0.000
KI (<i>X2</i>) → KSDM (<i>Z</i>) → KPPT (<i>Y</i>)	0.386	0.405	0.112	3.455	0.001

Source(s): Data processed PLS (2020)

and employee readiness for transformational change (Y). Figure 3 is the result of the significance test.

The indirect effect of individual characteristics (X_2) on employee readiness for transformational change (Y), through HRC 4.0 (Z) is 0.386 and is significant with p -values of $0.001 < 0.05$. In other words, HRC 4.0 (Z) is significant in mediating the relationship between individual characteristics (X_2) and employee readiness for transformational change (Y). Figure 4 is the result of the significance test.

4.3.5.3 The moderation Test. Furthermore, the moderation test is carried out, namely testing whether employee commitment to change (M_1) and transformational leadership (M_2) are significant in moderating the effect of HRC 4.0 (Z) on employee readiness for transformational change (Y). Table 11 and Figure 5 present the results of testing employee commitment to change (M_2) in moderating the influence of HRC 4.0 (Z) on employee readiness for transformational change (Y).

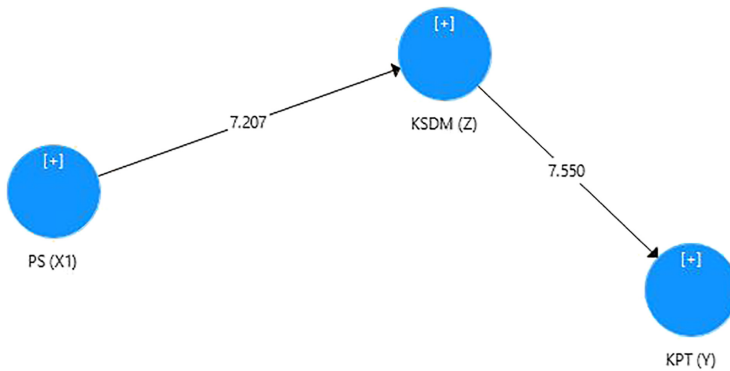


Figure 3.
Indirect Effect Path
Diagram (1)

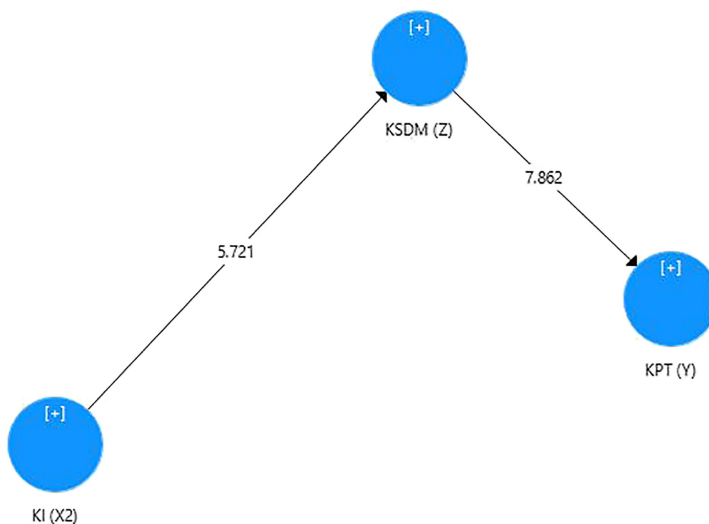


Figure 4.
Indirect Effect Path
Diagram (2)

Furthermore, the employee commitment to change ($M2$) is tested in moderating the influence of HRC 4.0 (Z) on employee readiness for transformational change (Y) as described in Table 11 below:

Based on the results of the moderation test in Table 11, it is known that the p -value of $KPP \times KSDM \rightarrow KPPT$ (Y) is $0.000 < 0.05$, so employee commitment to change ($M2$) is significant in moderating the influence of HRC 4.0 (Z) on employee readiness for transformational change (Y).

In Figure 5 the value of T Statistics for the variable employee commitment to change ($M2$) in moderating the effect of HRC 4.0 (Z) on employee readiness for transformational change (Y) is 3.512 greater than 1.96, which means that the employee commitment variable for change is a moderating variable or can moderate the influence of the HRC variables 4.0 on employee readiness for transformational change.

Furthermore, Table 12 and Figure 6 present the results of transformational leadership ($M1$) testing in moderating the influence of HRC 4.0 (Z) on employee readiness for transformational change (Y).

Table 11.
Testing employee commitment to change ($M2$) in moderating the effect of human resource competence 4.0 (Z) on employee readiness for transformational change (Y)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-statistics ($ O/STDEV $)	p-values
KPP ($M1$) \rightarrow KPPT (Y)	0.293	0.296	0.069	4.223	0.000
KPP \times KSDM \rightarrow KPPT (Y)	-0.242	-0.239	0.069	3.512	0.000
KSDM (Z) \rightarrow KPPT (Y)	0.428	0.443	0.075	5.713	0.000

Source(s): Data processed PLS (2020)

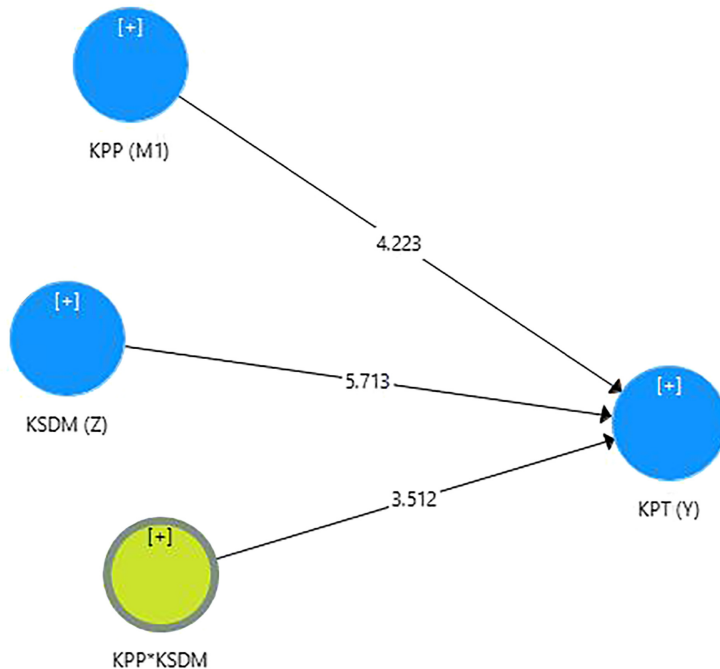


Figure 5.
Testing for moderation of employee commitment to change

Based on the results of the moderation test in Table 12, it is known that the p -value of $KT^*KSDM \rightarrow KPPT$ (Y) is $0.001 < 0.05$, so transformational leadership ($M1$) is significant in moderating the influence of HRC 4.0 (Z) on employee readiness for transformational change (Y). In Figure 6 the value of T Statistics for the transformational leadership variable ($M1$) in moderating the influence of HRC 4.0 (Z) on employee readiness for transformational change (Y) is 3.206 greater than 1.96, which means that the transformational leadership variable is a moderating variable or can moderate the influence of the HRC variable 4.0 on employee readiness for transformational change.

5. Discussion

The concept of HRC 4.0 is significantly influenced by soft skill training variables and individual characteristics. This is in line with previous research examining the effect of training on competence (Ezhilan and Renuga, 2013), and the effect of individual characteristics on competence (Ellstrom and Kock, 2008; Dragnidis and Menzas, 2006). The difference of this study is the use of the development concept of HRC which is adjusted to

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T -statistics ($ O/STDEV $)	p -values
$KSDM$ (Z) \rightarrow $KPPT$ (Y)	0.485	0.511	0.069	7.076	0.000
$KSDM \times KT \rightarrow KPPT$ (Y)	-0.237	-0.235	0.074	3.206	0.001
KT ($M2$) \rightarrow $KPPT$ (Y)	0.282	0.283	0.074	3.825	0.000

Source(s): Data Processed PLS (2020)

Table 12. Testing transformational leadership ($M1$) in moderating the effect of competence of human resources 4.0 (Z) on employee readiness for transformational change (Y)

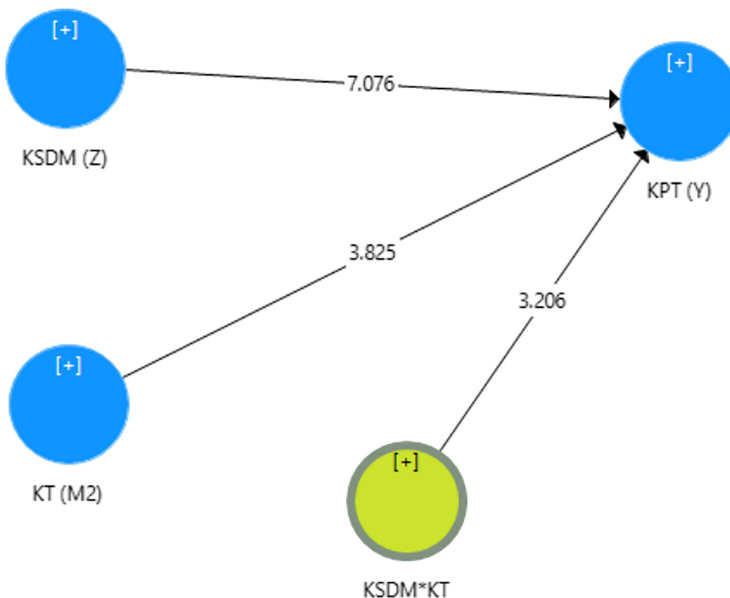


Figure 6. Testing of transformational leadership moderation

the demands of competence in the era of the IR 4.0, namely HRC 4.0 with factors that significantly influence it, namely soft skills training and individual characteristics.

Rafferty and Simons (2006) explain that the individual ability factor is not a supporting factor for readiness for change, but trust in senior leaders is the main supporting factor. However, the results of this study are not in line with Rafferty and Simons' research. The concept of HRC 4.0 is proven to have a significant influence on the readiness of Bank Indonesia's employees for transformational change. This is in line with previous research (Barber, 2010; Brodin, 1999; Armenakis *et al.*, 1993; Eby *et al.*, 2000; Cunningham *et al.*, 2002; Smith, 2005) which states that the human ability factor in dealing with changes that occurs in the organization is a determining factor for the success of the change program.

The concept of HRC 4.0 is also able to mediate the influence between soft skill training and employee readiness for transformational change, and to mediate the influence between individual characteristics and employee readiness for transformational change. HRC 4.0 as a mediator for soft skills training with employee readiness for transformational change is in line with previous research (Sharma, 2018; Ezhilan and Renuga, 2013; Febriandono *et al.*, 2019). The mediating role of HRC 4.0 is able to close the gap in previous results which state that soft skills training has no impact on employee readiness for transformational change. This fact shows that Bank Indonesia's employees who have competencies that match their competency needs in the era of the IR 4.0 will have an impact on strengthening perceptions of soft skill training that employees participate in, which can increase employee readiness for changes related to the Bank Indonesia transformation program. Furthermore, the concept of HRC 4.0 as a mediator of individual characteristics with employee readiness for transformational change is in line with previous research (Vakola, 2014; Waychal *et al.*, 2011; Chen and Wang, 2007). The mediating role of HRC 4.0 is able to close the previous results' gap which states that individual characteristics have no impact on employee readiness for transformational change. This fact shows that Bank Indonesia's employees who have individual characteristics that support change will have an impact on strengthening perceptions of individual characteristics that are able to increase employee readiness for changes related to the transformation program of Bank Indonesia.

There are two variables that have a significant moderating role in moderating the competence of human resources 4.0 on employee readiness for transformational change. The first variable is transformational leadership. HRC 4.0 is proven to be able to increase employee readiness for transformational change. This increase will be even more significant if it is followed by the application of transformational leadership by the top management of the Bank Indonesia. This shows that with the applications of idealized influence, inspirational motivation, individualized consideration and intellectual stimulation aspects by the leaders of Bank Indonesia, the positive influence of HRC 4.0 on employee readiness for transformational change will increase.

Human resource competencies support the formation of transformational leadership dimensions in a leader. This is in line with previous research (Barber, 2010; Brodin, 1999) which found that a transformational leader needs appropriate competency support to foster aspects of idealized influence, inspirational motivation, individualized consideration and intellectual stimulation. HRC 4.0 supports employee readiness for transformational change. This is in line with previous research (Al Tahitah *et al.*, 2018; Prasetya, 2015; Sarros and Santora, 2001; Kejrival and Krishnan, 2004; Northouse, 2013; Yukl, 2009) which states that a transformational leader will provide motivation to employees to realize the importance of changes in the organization that not only has a positive impact on the organization but also has a positive impact on employees.

The second variable that moderates HRC 4.0 on employee readiness for transformational change is employee commitment to change. HRC 4.0 is proven to be able to increase employee readiness for transformational change. This increase will be even more significant if it is

followed by the commitment of Bank Indonesia's employees to changes related to Bank Indonesia's transformation program. This shows that with employee commitment to change, the positive influence of HRC 4.0 on employee readiness for transformational change will increase. Employee commitment to change will support employee readiness for transformational change. This is in line with previous research (Soumyaja *et al.*, 2015; McKay, 2012; Pranatha and Majorsy, 2019) which stated that the change program will be successful if it is supported by openness and commitment of employees to the transformation program. Previous studies have proven that employee commitment to change has a significant effect on employee readiness to change. This is what underlies researchers to make employee commitment to change a moderator of HRC 4.0 on employee readiness for transformational change with significant results.

6. Conclusion

In this study, nine hypotheses were developed from the model of the relationship between soft skill training and individual characteristics variables as exogenous variables, HRC 4.0 as an intervening variable, transformational leadership and employee commitment to change as moderating variables and employee readiness for transformational change as an endogenous variable.

This research contains valuable novelty, which is a new concept of HRC 4.0 that linked to soft skill training, individual characteristics variables and employee readiness for transformational change. Furthermore, transformational leadership and employee commitment variables have significant effect in moderating the influence of HRC 4.0 on employee readiness for transformational change. Practically, all variables are related to employees which become a crucial factor in organization's performance. These variables also could be applied in other organizations beside the Bank Indonesia because the transformational change considered as a need in facing unpredicted business environment.

The findings of this study reinforce the argument and previous studies that different dimensions, indicators and units of analysis will affect employee readiness for transformational change. Also, this study has proven the concept of human resource competencies 4.0 with the dimensions of core competencies, core value competencies and managerial competencies has a positive and significant effect on the readiness of Bank Indonesia office employees in the Province of North Sumatra – Aceh. These findings are in line with research (Choi and Ruona, 2011; Meliyanti, 2015; Kapoor, 2005) but contrary with the findings by Rafferty and Simmons (2006). This reinforces the argument on previous studies that different dimensions, indicators and units of analysis will affect employee readiness for transformational change. These findings enrich force field theory as one of the theories in change management introduced by Kurt Lewin (1951). Finally, this study enriches the construction of an empirical study on employee readiness for change that only focuses on the concept of readiness for change in general.

The limitation of the study is of adopting only two variables as the antecedents of HRC 4.0, whereby other factors could be adopted and examined. Future studies also could sharpen the analysis of factors that affect HRC 4.0. This study only uses a survey method with a questionnaire as an instrument for data collection where the answers are merely relying on the respondent. Some respondents' dishonesty or attempts to provide answers that are socially acceptable and not in accordance with the reality, may affect the results of the research. This has been warned by Bobe and Kober (2015) and Gabrielsson *et al.* (2016). Thus, future research studies may carry out a depth interview or focus group discussions to enrich the perceptions. Other limitations are literature review for all the variables which are not explored optimally. Finally, in relation to the unit of analysis, this study was only carried out in five Bank Indonesia Offices in North Sumatra – Aceh Province and may not represent all

Bank Indonesia offices in Indonesia, which means in the future, a bigger sample size should be considered for better generalization.

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