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The Analysis of Organizational Changes using Structural Equation Modelling with Mediating Readiness to Change in Higher Education

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Abstract—This research study demonstrates that the readiness to change moderates the association between supervisor support and commitment to organizational change. The variable "readiness to change" fulfills this moderating function. The State University in West Sumatra, a prestigious institution of higher education in Indonesia, boasts a faculty comprising 260 committed teaching personnel. The formulation of the questionnaire was grounded upon a predetermined set of criteria. The data analysis process involved utilizing Structural Equation Modelling (SEM) and SmartPLS 3.0 software. The results obtained from using structural equation modeling (SEM) were consistent with recognized metrics such as Cronbach alpha, composite reliability, mean-variance extracted, and evaluation criteria for both measurement and structural models. Furthermore, it also showcased the soundness and reliability of the measurement instruments. The study suggests that the mediating factor of preparation for change plays a role in the association between the provision of high-quality support and the level of commitment towards organizational change. This study contributes to the field of management and organizational leadership by providing insights on how to develop robust change strategies through enhancing employees' readiness for transition. This study makes a valuable contribution to the field of change management by emphasizing the role of readiness to change as a mediating factor in the relationship between supervisor support and organizational change commitment. This research additionally aids organizations in developing grooming and training programs aimed at equipping employees with the necessary skills and knowledge to adapt to change.

Keywords— readiness to change, supervisor support, organizational development, structural equation modelling.

I. INTRODUCTION

The occurrence of organizational change is widespread in the current business environment. To succeed in the contemporary business environment, organizations must be able to maneuver and adapt adeptly to swift and dynamic alterations in their external surroundings. Furthermore, individuals must be able to effectively adapt to the ever-growing demands of the market and confront the escalating levels of competition. In order to confront these challenges, it has become essential for organizations to engage in organizational change [1]. Nevertheless, the process of organizational transformation is intricate and challenging. The comprehension of factors contributing to organizational success is paramount in transformation programs, as many such programs fail to achieve their intended objectives [2]. The presence of influential leaders is crucial in situations characterized by significant transformations. In leadership, possessing a well-defined vision for organizational change, adeptness in articulating those objectives with efficacy, and exemplifying commendable conduct to motivate others are highly significant attributes. Furthermore, individuals must be willing to embrace constructive criticism and be prepared to implement requisite modifications.

In order to effectively express one's viewpoints, it is imperative to employ precise and coherent communication. The attainment of this objective can only be realized under such circumstances. Employees must comprehensively comprehend the rationale underlying the proposed alteration alongside the anticipated consequences and potential ramifications on their respective working environments. Comprehending the rationale behind the proposed change is of utmost importance for employees. One prospective approach for ameliorating the impacts of climate change involves enhancing our communication channels, thereby alleviating stress. Research indicates that the active engagement of employees in the process of organizational

transformation leads to heightened levels of commitment and dedication toward the newly implemented measures. This objective can be achieved through the implementation of feedback mechanisms, the promotion of decision-making participation, and the provision of opportunities for individual skill enhancement.

Providing assistance and support to employees during the transition process holds significant importance. This support may be provided by individuals in positions of authority, such as team leaders, managers, or even fellow employees within the organization [3]. When employees feel as though they are working in a supportive atmosphere and see that their concerns are being addressed, they are more likely to be committed to the changes their firm is undergoing. Effective communication is the primary factor in fostering commitment to change, surpassing all other considerations. Employees are entitled to be informed regarding the rationale behind implementing a change, the personal implications it will have on them, and the specific role they will assume in the overall process [4]. Effective communication is crucial in establishing and maintaining productive relationships.

Within organizational change, the significance of superior support has been recognized as a crucial determinant in the achievement of change initiatives [5], [6]. The notion of supervisor help comprises a diverse range of commendable actions and behaviors to ease or facilitate the transition from one state to another inside an organization. These actions may include providing necessary resources, effective communication of a change-oriented vision, clear guidance on the desired direction, and emotional support to employees. The provision of support plays a crucial role in establishing a conducive environment for change, enhancing employees' confidence, and fostering active engagement in organizational change initiatives [7].

In previous research, superior support has been the main predictor of organizational transformation success. However, more evidence suggests that other factors affect organizational transformation. The organizational change process encompasses more than just the involvement of individuals in positions of authority [8]. Employees play a crucial role in dealing with and addressing these changes. The concept of readiness to change encompasses an individual's attitudes, beliefs, and skills about managing and adapting to change. Research suggests that employees with a sense of preparedness for change exhibit a more significant commitment towards organizational change. Furthermore, these individuals demonstrate enhanced capabilities to effectively accommodate and adapt to the changes that transpire [9]–[11].

Multiple studies have demonstrated that supervisor support plays a significant role in enhancing employees' willingness to embrace change [9], [12]–[14]. When employees perceive support and attention from their superiors, they are more likely to experience a heightened sense of preparedness and capability in dealing with organizational change. According to [15], the provision of supervisor support, characterized by open communication, attentiveness to employee input, and clear direction, can foster employee confidence in confronting change and enhance their preparedness for change.

In addition, the commitment to the degree of transformation occurring within an organization is a critical determinant of the effectiveness of change initiatives [16]. Employees who exhibit a heightened degree of dedication are inclined to display tremendous enthusiasm and possess a robust drive to participate actively in organizational transformation. Individuals are inclined to exhibit a higher propensity for collaboration, flexibility, and resilience when confronted with challenges linked to transformation [17]. Hence, it is imperative to comprehend how the readiness to change and the provision of superior support contribute to change commitment.

Organizational change commitment is also vital to project success[16]. Employees who exhibit a heightened degree of dedication are inclined to display more tremendous enthusiasm and possess a robust drive to participate actively in the process of organizational transformation. Individuals are inclined to exhibit a higher propensity for collaboration, flexibility, and resilience when confronted with transformation-related challenges. Hence, it is imperative to comprehend the ways in which the readiness to change and the provision of superior support contribute to the commitment to organizational change [17].

While prior studies have established a correlation between superior support, readiness to change, and commitment to change, no research has yet examined the specific role played by these three factors. Within this particular context, the concept of readiness to change has been identified as a factor that could potentially influence the connection between supervisor support and an individual's commitment to organizational change [18]. The present study on superior support and organizational change commitment needs to examine how preparedness to change mediates [15]. Further comprehensive and thorough investigation is still required [19]. Research that includes a more detailed study might better understand how openness to change mediation of supervisor support and organizational transformation commitment.

Furthermore, previous studies have employed a diverse range of assessment instruments to evaluate an individual's ability to adapt to novel situations. Conversely, more reliable and comprehensive instruments is needed for assessing preparedness for change. Comparing the outcomes of various studies can pose challenges due to the presence of inconsistent measurements about readiness to change [20]. This phenomenon can pose challenges when comparing the findings of various studies. The impact of change on an organization can vary, with potential benefits or drawbacks contingent upon the prevailing organizational culture. Societies characterized by greater openness to novel experiences and a higher degree of acceptance towards change are likely to encounter less difficulty in adapting to the future global landscape. The process of organizational transformation requires careful and thorough planning.

In order to achieve success in attaining this objective, it is imperative to engage in meticulous strategic planning, conduct regular assessments of one's advancement, and possess the ability to confront and resolve unforeseen obstacles as they emerge effectively. If circumstances diverge from the intended course of action, it is crucial to possess an alternative plan that can be implemented if required. The primary factors often cited as the fundamental causes for resistance to change include a sense of unease towards

unfamiliar situations, concerns about the potential loss of job security, and a preference for maintaining established practices. The interrelationship among these three forms of apprehension is significant. In order to achieve personal goals effectively, it is imperative to proactively identify potential obstacles and devise viable strategies to surmount them promptly.

It is imperative to develop a comprehensive comprehension of employees' preparedness for change in order to formulate and execute organizational change initiatives with efficacy [21]. This involves assessing the individuals' inclination and ability to embrace the suggested modifications. There is a positive correlation between employees' preparedness level and their commitment to implemented changes. Employees are motivated to actively contribute to the company's success due to their strong commitment to the organization and its goals. According to previous research [22], individuals view the potential for change as a positive chance to bring about significant social changes. This perception enhances their inclination to dedicate the necessary effort for its successful achievement.

As mentioned earlier, the objective of this study was to explore and analyze the role of readiness to change as a mediator between supervisor support and organizational change commitment. This article offers valuable insights that will be of interest to researchers and practitioners involved in the field of organizational transformation management. These insights possess particular utility across a range of circumstances. Organizations can enhance the efficacy of their change management strategies by acquiring a deeper comprehension of the diverse factors that impact individuals' dedication to change. This facilitates enterprises in enhancing their operational efficiency and fortifying their competitive standing in the market.
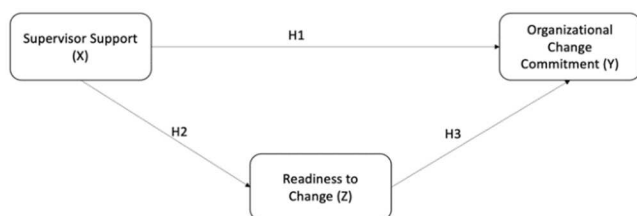

Fig. 1 Purposed Framework

II. MATERIAL AND METHOD

A. Research Design

It has been established that the approach of conducting a survey is the one that is most appropriate to utilize for the reason for doing this research in its current form. method that was used for the gathering of data for this study [23]. It is appropriate for use by a sizable number of individuals who approach their research from a quantitative perspective. According to [24], the quantitative method is an appropriate choice for a study that aims to confirm obvious phenomena, such as the context of this particular study.

B. Participants

This study employs an incidental sampling method, in which the sample object is chosen based on what is readily available at the time the research is carried out. The subjects of this study were the professors working at the state universities in West Sumatra that recently transitioned from being classified as public service higher education institutions (PTN BLU) to being classified as legal entity higher education institutions (PTN BH) research. The participants in this study total 260 individuals for the sample.

C. Instrument

This study is going to measure three different variables. The researchers utilized a measuring instrument developed by [25] to determine the degree of dedication to making changes those participants possessed. Affective change commitment, normative change commitment, and continuation change commitment comprise this measuring instrument's three components. This evaluation tool consists of 18 separate items and uses a Likert, with a score of one indicating the most extreme level of disagreement and a score of six indicating the most extreme level of agreement.

A tool for measuring readiness to change was created by [26]. The following are the three components that make up this instrument: participation, promotion, and resistance. This evaluative tool includes 18 distinct components, each receiving a score based on a Likert scale.

In this inquiry, to quantify the variable that was discovered to have more significant support, a measuring instrument that was designed by [27]and consisted of four items was utilized. The instrument has four separate parts. The information was collected using a Likert scale, with 1 representing severe disagreement and 6 representing strong agreement.

D. Data Analysis

A questionnaire was used to acquire the necessary data for this investigation. It was determined to carry out the Analysis of the data with the assistance of the SmartPLS 3.0 software for a variety of different reasons. In the first place, it is feasible to construct measurement models with a predictive point of view [28]. Next, the researchers did not assume that the data followed a normal distribution and instead collected a large number of samples [29]. Thirdly, Analysis of structural equation modeling (SEM) in SmartPLS 3.0 incorporates mediating elements to examine empirical data, hence offering a causal explanation for the model [30].

Path analysis was utilized in this research project for the purposes of testing hypotheses, in addition to identifying unmediated and mediated connections between exogenous and endogenous factors. For this purpose, we used the two-stage, two-tailed, 5%. The mediating impact was analyzed using the p 0.05 (p 0.05) method developed by [30]. In the first phase, we examined whether or not the indirect effects were meaningful, and in the second phase, we analyzed the role that mediation had in the connection. In order to validate the mediating effect, the indirect effect must have a significant impact.

It is possible for mediating effects to have a large impact either when the indirect effect has no impact at all or when it has an impact that is either comparable to or higher than that of the direct effect. If the mediation is successful, then it was successful even if the direct effect was modest, but the indirect effect was considerable. This is because direct effects are easier to measure than indirect effects. A phenomenon known as partial mediation takes place if there is significance associated with both the direct and the indirect effects.

Through mediation, one can arrive at a resolution that is either constructive (unidirectional) or destructive (opposite).

III. RESULTS AND DISCUSSIONS

Analyses are performed on indicators or statement items concerning latent variables that correspond to those variables, which is the primary emphasis of implementing the Measurement Model Assessment, often known as the MMA. This study used four latent variables, and twenty-two indicators were used to evaluate them. In all, there were forty-two indications. In order to determine whether or not these latent variables are consistent with one another and whether or not they have their own identity, convergent and discriminant validity analyses were carried out. Examining how well one set of results agrees with another is what's meant by the term "convergent validity" the measurement items of particular variables conform to the four criteria that have been defined. When the external loading is more than 0.7, the validity of the item is determined to have been established. If the Average Variance Extracted (AVE) is larger than 0.5, the data are considered credible, and so is the Cronbach's alpha value if it is greater than 0.7. Table I and Figure 2 both display the findings of the inquiry into the convergent validity, which can be shown to have been successful.

TABLE I
VALIDITY TEST

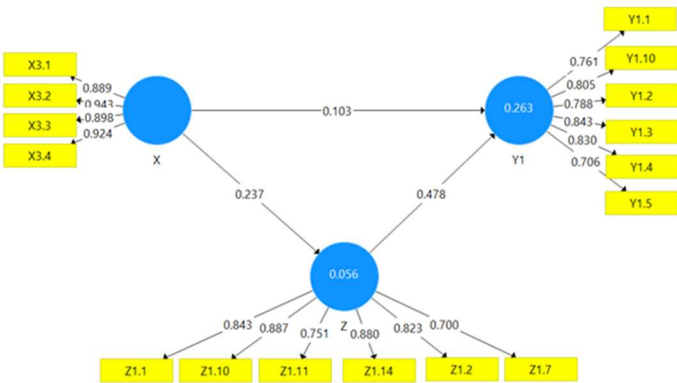| Predictor	Item	Outer Loading >0.7	Cronbach Alpha	CR	AVE
Supervisor support (X)	X1	0, 889	0.934	0.953	0.835
	X2	0, 943			
	X3	0, 898			
	X4	0, 924			
Readiness to change (Z)	Z1	0, 843	0.898	0.923	0.667
	Z2	0, 887			
	Z3	0, 751			
	Z4	0, 880			
	Z5	0, 823			
	Z6	0, 700			
Organizational Change Commitment (Y)	Y1	0, 761	0.880	0.909	0.624
	Y2	0, 805			
	Y3	0, 788			
	Y4	0, 843			
	Y5	0, 830			
	Y6	0, 706			

Fig. 2 Variable Construct Model

The findings of the convergent validity test, which are presented in Table 1, indicate that the predictors Supervisor

support (X), Readiness to Change (Z), and Organizational Change Commitment (Y) exhibit validity. Values of 0.7 or higher for outer loading, 0.7 or higher for Cronbach's alpha, 0.7 or higher for composite reliability, and 0.5 or higher for Average Variance Extracted (AVE) all demonstrate this. This means that the researcher cannot see the predictor measurement variability, hence it is classified as a latent variable. As a result, the structural equation modeling (SEM) route analysis that is outlined by You can use [29]. The study's predictors were all put through Cronbach's alpha and composite reliability tests to ensure their consistency with [31] cites as evidence of the reliability and consistency of the model. These tests were carried out for each predictor.

TABLE II
HETEROTRAIT-MONOTRAIT RATIO OF CORRELATIONS (HTMT)

	X	Y	Z
X			
Y		0, 162	
Z		0, 231	0, 521

According to the results of this research, the degree to which an individual is prepared to go through change may have a major influence in the relationship between getting support from subordinates and the amount of commitment to organizational transformation. As depicted in Table 3, This research aims to present the outcomes of the correlation between the variables. Based on the obtained findings, it is evident that there exists a positive but non-significant relationship (β = 0.046, ρ = 0.589) between Supervisor support (X) and Organizational Change Commitment (Y). Conversely, a positive and significant relationship (β = 0.225, ρ = 0.001) is observed between Supervisor support (X) and readiness to change (Z).

In the present study, readiness to change (Z) was shown to have a positively and statistically significant link with Organizational Change Commitment (Y) (β = 0.498, ρ= 0.000). The present study examines the positive and significant influence (β = 0.112, ρ = 0.007) of Supervisor Support (X) on Commitment to Organizational Change (Y), with readiness to change (Z) acting as a mediator in the relationship.

TABLE III
SUMMARY OF STRUCTURAL MODEL

Hypothesis	β	t	ρ	Results
X > Y	0, 046	0, 540	0, 589	Rejected
X > Z	0, 225	3, 312	0,001	Accepted
Z > Y	0, 498	4, 380	0, 000	Accepted
X > Z > Y	0, 112	2, 731	0, 007	Accepted

When an organization encounters a period of transition, the significance of possessing robust support and demonstrating readiness to embrace the change assumes a critical role in given circumstances. The empirical evidence indicates that employees are more adequately equipped to engage in change initiatives when supervisors offer effective support [5], [7]. The heightened state of preparedness subsequently leads to a greater degree of dedication towards the suggested alteration.

The association between superior support and organizational change commitment reveals readiness to change mediates their interaction. Managers and other supervisors' support affects how well employees accept and adapt to organizational changes. This, in turn, has ramifications for the level of commitment that employees have to the entire process of change as well as the amount of involvement that they have in it [15], [19]. In addition, an employee's level of readiness for change can have an effect on how they understand and respond to the support they receive from their managers and supervisors.

If an employee exhibits a high level of enthusiasm towards change, it is likely that they will perceive the assistance provided by management as valuable and advantageous. Individuals may perceive their supervisor as a valuable ally during the transformation process, acknowledging and valuing the guidance and support they offer. A positive relationship is frequently observed between the extent of information dissemination among employees regarding a change and their preparedness level for that transition. Managers that effectively communicate succinct, timely, and accurate information to their staff can positively impact their propensity to embrace and adjust to organizational changes. This objective can be achieved through reducing levels of uncertainty and anxiety.

In the event that an employee exhibits a negative inclination towards change, characterized by resistance or fear, it is plausible that they may harbor greater skepticism towards the support offered by management. The recipients of the aid may perceive it as coercive or lacking sincerity, resulting in a subsequent erosion of trust. Individuals may potentially be undergoing emotions characterized by apprehension or internal conflict. In situations of this nature, the endorsement of leadership holds significant influence in shaping employees' attitudes towards organizational change. Managers who demonstrate compassion and understanding have the potential to contribute to an individual's cultivation of a more optimistic perspective on life.

Businesses are able to improve the effectiveness of their change management strategies and, as a result, their overall effectiveness within their organizations if they acknowledge the significance of change readiness as an essential component of the change management process. Assuming that the manager shows a willingness to offer assistance, there is a possibility that there is a correlation between a manager's propensity to support their employees during times of transition and their employees' ability to adapt to novel working circumstances. However, this correlation can only exist if the manager demonstrates a willingness to offer assistance. The tendency of managers to offer assistance to their employees during times of transition is one empirical observation that provides supporting evidence for this hypothesis. This evidence comes from the observation that managers tend to offer assistance to their employees. As a result, it is possible to generate fervent support for the organization's efforts to undergo transformation, as well as their active participation in such efforts. This can be accomplished in a number of different ways.

Managers have the ability to actively influence the readiness levels of an organization's workforce by promoting and facilitating employee engagement in the process of transitioning. Managers are able to influence the preparedness levels of a company's workforce proactively. As a result, managers possess the capacity to proactively influence the preparedness levels of the workforce within the organization. As a result of this phenomenon, managers can exert a certain level of influence over the level of preparedness exhibited by the employees under their guidance. Research has shown that employees tend to display higher levels of commitment to the organization and demonstrate increased adaptability in the face of changing circumstances when they can engage in decision-making processes that directly impact them. Employees may tend to resist change if they perceive a deficiency in their knowledge, skills, or resources required to navigate and adjust to workplace changes successfully. This belief could potentially stem from a deficiency in self-assurance regarding their own capabilities.

In order to bridge this disparity, it is imperative for managers to actively promote the participation of their staff members in training and development initiatives specifically tailored to facilitate career progression. To achieve this objective, actively promoting employee participation in training and development initiatives is advisable. One strategy manager can employ to foster a favorable disposition towards workplace change among employees is to provide recognition and advancement opportunities to those who independently implement organizational change initiatives. This strategy can serve as a means to incentivize employees to embrace a more constructive perspective towards change. One possible unintended outcome of these interventions is the enhancement of workers' attitudes towards change. Suppose these actions are presented as exemplars to other employees. In that case, it is likely that those employees will be motivated to emulate and adopt the behavior that has been demonstrated to them.

The level of uncertainty regarding employees' adaptability to change is contingent upon whether the change necessitates the acquisition of novel skills or the implementation of fresh procedures, as indicated by a direct proportionality. Consequently, the necessary adaptation will necessitate a greater investment of time and effort in order to be successfully accomplished. The change management strategy will probably necessitate essential revisions to incorporate emerging information and feedback. Organizations that demonstrate agility in responding to dynamic market conditions are more likely to endure periods of adversity, particularly within the current era characterized by volatility and unpredictability. Researching the requirements and preferences of all stakeholders involved in the organizational transformation process within an organization is imperative. The change will have an impact on various stakeholders, including customers, vendors, employees within and outside the organization, and external collaborators.

It is imperative to consider that contextual factors and organizational characteristics are unique and separate from one another. Hence, it is crucial to undertake further investigation and perform a comprehensive analysis in order to acquire a more comprehensive comprehension of the intricate dynamics between supervisor support and readiness to change within a specific organizational setting. This objective can be achieved by engaging in additional research and undertaking a comprehensive analysis. To enhance the

effectiveness of supervisor support in promoting commitment to change and successfully attaining change objectives, it is imperative to understand the mediating role of readiness to change. This will enable organizations to enhance their effectiveness in attaining their objectives for change. This objective can be achieved by enhancing individuals' comprehension of the readiness to change construct, which should subsequently be consistently explored and adjusted.

IV. CONCLUSION

The research findings contribute to comprehending the underlying mechanisms involved in organizational transformations. These findings also offer valuable insights into the crucial role that an individual's openness to change plays in establishing connections with individuals who offer support and demonstrate commitment to the process of organizational change. In order to effectively influence the relationship between demonstrating commitment to organizational change and receiving support from higher authorities, it is crucial to possess a mindset that is adaptable to change. To accomplish this task, it is imperative to possess a mindset that is adaptable to change. The findings above, previously mentioned and elaborated upon in the article, support this claim. The results underscore the significance of fostering a cognitive orientation characterized by adaptability and flexibility.

In light of the research findings, it is crucial to consider an individual's readiness for change when considering organizational transformation. Employees with mental and emotional preparedness toward change tend to exhibit heightened dedication toward the organization. Employees with a mental preparedness to confront and adapt to change typically exhibit a heightened level of dedication and loyalty towards the organization in which they are employed. Individuals who demonstrate a willingness to adjust to novel situations and actively participate in the change process are more likely to see change as a chance to improve themselves. Due to their cognizance of their contribution to organizational advancement, they exhibit unwavering commitment.

Individuals possess enhanced capabilities to manage various challenges, including stress, anxiety, and uncertainty, frequently linked with the change process. Individuals channel their emotional energy towards engaging in productive actions that effectively contribute to achieving organizational objectives rather than succumbing to the fear of rejection or yielding to anxieties. Solid management is one of the most important things that helps workers improve their mental and physical readiness. Leaders being there who have outstanding communication skills, provide emotional support, and create an environment in which it is safe for open expression of concerns have a substantial influence on the level of preparedness among employees for the change that the organization will bring about. The presence of other significant criteria also affects the completed preparation level. When an employee perceives a sense of value and appreciation from their superiors, there is a tendency for their level of commitment toward the organization to rise.

In contemporary society, the quality of adaptability holds significant significance, as it is the employees who possess the requisite mental and emotional preparedness to fulfill their job responsibilities that act as the fundamental driving force behind the accomplishments of an organization. Hence, fostering a culture of preparedness and support serves as both a strategic approach for navigating through periods of change and a framework for effectively achieving desired transformations.

Based on the results obtained from our study, a notable association has been observed between an individual's disposition towards change and the level of assistance they receive from the various individuals and institutions comprising their social milieu. This observation was made when the participants were requested to evaluate the level of support they received from their social environment. The importance of this relationship lies in its ability to exemplify the significance of progression. There is no inherent requirement for a direct correlation between an individual's level of commitment and their level of ability in a given pursuit. Nonetheless, the consequences of an individual's actions are amplified when combined with a heightened state of readiness in the surrounding context. In order to provide further clarification, the cultivation of loyalty necessitates the presence of motivation instigated by leadership among employees, alongside the willingness of the workforce to embrace and adapt to change. The attainment of the desired outcomes necessitates the convergence of these particular points.

The findings above possess significant utility for professionals engaged in the domain of change management, encompassing both practitioners and individuals in leadership roles. Hence, it is evident that the assessment and promotion of societal preparedness for transition necessitate the inclusion of a comprehensive change management strategy, which entails the provision of substantial and sophisticated support. The inclusion of a comprehensive change management strategy is imperative in assessing and promoting community preparedness during the transition process. Utilizing the second strategy can enhance worker motivation, leading to increased dedication and commitment during the transitional period.

When undertaking an inquiry of this kind, certain limitations will inevitably arise, alongside the necessity to pursue novel avenues of investigation throughout the research process. Further investigation into the way commitment and high-quality support intersect may provide valuable insights for subsequent scholarly inquiry. Further examination of these relationships can provide valuable insights into the impact they have had on the company's evolution throughout its existence.

Overall, these findings provide insight into the complex dynamics between people's willingness to change, the degree to which they are encouraged to do so, the availability of opportunities for them to do so, and their commitment to the organizational transformation being pursued. The ability to identify and capitalize on these dynamics is imperative for managers in order to achieve success in implementing change initiatives.

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