

Antecedents of Resistance to Organizational Change: A Systematic Literature Review

Wanxian Deng^{1,3}, Siti Noormi Alias¹, Ahmad Aizuddin Md Rami¹, Ismi Arif Ismail^{1, 2}

¹Department of Professional Development and Continuing Education, Faculty of Educational Studies, Universiti Putra Malaysia, 43400 Selangor, Malaysia, ²Institute for Social Science Studies, Universiti Putra Malaysia, 43400 Selangor, Malaysia, ³Yuxi Normal University, 653100 Yunnan, China

Corresponding Author's Email: sitinoormi@upm.edu.my

Email: gs55969@student.upm.edu.my, ahmadaizuddin@upm.edu.my, ismi@upm.edu.my

Abstract

Purpose- To examine the antecedents of individual resistance to organizational change, supporting theories (models) and research methods.

Design/methodology/approach- Systematic reviews were conducted based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). Two electronic databases (Scopus, Web of Science) were systematically screened, all articles of empirical quantitative research examining individual resistance to change in organizational settings were eligible for inclusion.

Findings- 20 articles meet the study criteria. Only trust in management and cognitive flexibility were correlated with all 3 dimensions of resistance to change (behavioral, cognitive, affective). Dispositional resistance to change, cognitive flexibility, mindfulness, trust, leadership, leader-member relationships, participation, communication, and justice were the main antecedents of different dimensions of resistance to change. 9 articles describe support of theories (models). Articles tend primarily to cross-sectional and correlation design.

Limitations/implications- Restricted to two electronic databases, empirical quantitative research, and English articles may lead to under-representation of research conclusions. The findings imply the three-dimensional concept of resistance to change may more precisely explain the relationship between antecedents and specific resistance components. This study provides suggestions for improving the effectiveness of the management of organizational change resistance and fills the gap in the systematic literature review on antecedents of resistance to organizational change.

Keywords: Organizational Change, Resistance to Change, Antecedent Variables, Systematic Review, Change Management

Introduction

Market competition and Covid-19 triggered unpredictability both pose a challenge to the survival and growth of the organization, and the organization is forced to cope with this crisis through change. Organizational change refers to adjustments in structure, employee, and

technology to better respond to changes in the environment and achieve goals (Robbins & Judge, 2014). However, few organizations successfully conduct change as planned due to various challenges faced (Vakola & Petrou, 2018). Past data showed, 80% of organizations failed to achieve on target, 28% were terminated before completion, and 43% were delayed (Knodel, 2004), 60-75% of new IT system introductions failed (Rizzuto & Reeves, 2007). Smith (2004) stated the effectiveness of the organizational change may depend on the attitude of the employees, and 70% failure of organizational change is explained by resistance to change (Buick et al., 2015; Hughes, 2016). The literature suggests that resistance to change can lead to delays and additional costs, decreased productivity, brand damage (Lewis, 2019), and even complete failure of organizational change (Trice & Beyer, 2001). Resistance to change has become a human resource challenge for organizations (Dorling, 2017). On the other hand, Appelbaum, Degbe, Macdonald, and Nguyen-Quang (2015) pointed out resistance is not always obvious. Employees often fail to actively support or promote change actions, they may express dissent about organizational change plans in different ways instead of expressing resistance to change through public protests and objections (Giangreco & Peccei, 2005). Besides, employees may not be aware that they are resisting change, and they see these actions as legitimate measures to safeguard the long-term interests of the organization (Kulkarni, 2016). Therefore, change managers need to identify factors of resistance, and adjust strategies to reduce the risk of resistance to change, and ultimately achieve organizational change effectively.

Resistance to change (RTC) was proposed by Kurt Lewin in the 1940s. According to Lewin (1947), resistance to change is a conflicting force that emerges during organizational upheaval and that can only be eliminated when leaders and employees agree on the ultimate goal. Some researchers divided resistance to change into active resistance and passive resistance. Active resistance is defined as expressing opposition to change through obvious behavior, including criticism, sabotage, spreading rumors, while passive resistance is defined as manifesting opposition to change through hidden behavior, including agreeing but not taking action, delay, concealment of truth (e.g., Bolognese, 2002; Herscovitch & Meyer, 2002; Hultman, 2006; Petrini & Hultman, 1995; Singh, Saeed, & Bertsch, 2012; Smollan, 2011). Another classification of resistance was provided by Fritzenschaft (2014), including oral resistance (e.g., counterarguments, condemnation, inaction, marginalization, etc.) and behavioral resistance (e.g., disputes, formation of groups, absenteeism, etc.). In light of this, Cinite and Duxbury (2018) proposed explicit resistance and implicit resistance. Explicit resistance refers to forms of resistance that are clearly visible and audible, such as strikes, labor disputes, destruction, etc., while implicit resistance refers to resistance behaviors that are difficult to identify, such as lack of confidence in the organization, deception, procrastination, lower motivation, and poor productivity (Robbins et al., 2009). However, Piderit (2000); Oreg (2006) stated that resistance to change should be defined from a multi-dimensional perspective, including behavioral, cognitive and affective dimensions, behavior relates to how individual behave in response to change (e.g., whining, destroying); cognitive means change is viewed by individual differently (e.g., necessary, helpful); and affective describes how individual react to the change (e.g., scared, upset). According to Piderit (2000), employee reactions to a change in thoughts, feelings, and behaviors may not always be consistent with one another, the intricacy of each person's resistance to change behavior is better captured by the three-dimensional definition of resistance to change. Therefore, this study examines the antecedents related resistance to change based on the three dimensions.

Previous studies have found several factors that influence resistance to organizational change. For instance, personal factors like dispositional resistance to change (e.g., Meier et al., 2013), emotional intelligence (e.g., Voracek, Kossmeier, & Tran, 2019), employees' cognition of change (e.g., Wu, 2009) etc. And the organizational factors, such as organizational commitment (e.g., Cinite & Duxbury, 2018), leadership styles (e.g., Besliu, 2018; Belias & Koustelios, 2014; Gelaidan & Ahmad, 2013), readiness for change (e.g., Thakur & Srivastava, 2018), organizational culture (Danişman, 2010), justice (Fuchs & Edwards, 2012; Jones & Skarlicki, 2013), communication (Furst & Cable, 2008), change information and participation (e.g., Georgalis et al., 2015), etc. Although existing research has demonstrated a connection between some variables with resistance to change, most of these studies are based on broad or vague definitions of resistance to change, the status of empirical research on its antecedents based on the three-dimensional concept of resistance to change is still unclear. According to Oreg (2006), the affective and cognitive components of resistance are associated with expected outcomes of change, such as job security and rewards. The behavioral resistance is related to factors in the process of change. For instance, trust in management and social influence. Therefore, different sources of resistance may have different degrees of influence on employees' behaviors, emotions, and cognitions in resisting change, and more attention needs to be paid to providing systematic reviews to understand the relationship between the dimensions of resistance and its antecedents. Besides that, past study has systematically reviewed the reactions of change recipients to organizational change and reaction antecedents, including individual characteristics, context, change process, change content and change consequences (e.g., Oreg et al., 2011), resistance to change as a subject of reactions to change, the systematic review independently is still limited. In particular, the lack of some comprehensive summaries of supporting theories and research methods for empirical research on resistance to change, thus indicating a gap in the change management literature. While there are some review studies on resistance to change have found that several factors like understanding, the threat and benefits of change, trust in management can influence employee resistance to change, the reviews are limited to certain regions (e.g., Europe, Africa, Australia, and North America) (Erwin & Garman, 2010), and these are not presented in a systematic literature review (SLR) format. Overall, SLR on the antecedents of resistance to change are scarce, traditional literature reviews are usually biased, and researchers tend to select articles that are beneficial to their research (Shaffril et al., 2021), while the strength of SLR is comprehensive the assessment of the current state of research in a field through an objective, rigorous, and open procedure (Higgins et al., 2011; Tranfield et al., 2003). Considering the gaps in past studies, this study aims to carry out the SLR of examining the antecedents of organizational resistance to change based on the three dimensions (cognitive, affective, and behavioral resistance). Therefore, this study formulated the following research questions to conduct current SLR: What are the antecedents of the individual resistance to organizational change? What theories (models) serve as the foundation for research on antecedents of change resistance? What research methods are used to research on antecedents of change resistance?

The article is organized as follows. Part 1 introduction of research background, objective, and research questions. Part 2 explains the methods used in the SLR. Part 3 displays the results. Part 4 discussion of findings and limitations. Part 5 offers implications and recommendations.

Methods

Reporting standard- PRISMA

According to Mohamed Shaffril et al (2021) the process of SLR should follow necessary rules, such as reporting standard/review protocol/established guidelines/etc. Hence this study based on items of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Liberati et al., 2009) to enhance quality and reliability of the evaluation method. Additionally, the scope of this study is restricted to previously published studies in the context of organizations, individual resistance to change, as well as empirical quantitative articles that present empirical data with statistical inference procedures and results. We included non-peer-reviewed articles to provide a complete picture of literature.

Search Strategy

Two electronic databases were conducted to a systematic search, Scopus and Web of Science. Because Scopus is the broadest abstract and citation database and Web of Science is the authoritative database. The size and coverage of research topics and citation counts enable the classification of large numbers of articles according to specific criteria. All available years were used in the above two databases and the last search was run on 24 April 2022. The search terms used were ("resistance to change " OR "resistance" OR "resistant" OR "resist*") AND "organizational change" and were coupled with the Boolean Operator as a selection criterion for checking at "title, abstract, and keyword" of all published article on this topic; Language restricted to "English" to avoid translation bias; The research focused on articles published in the following subject categories of "Social Sciences", "Psychology", "Behavioral Sciences", "Economics", "Business, Management and Accounting". Ultimately, Scopus found 718 articles, Web of Science found 318 articles. Total found 1099 articles.

The screening process consisted of three steps: 1. Screening for duplicate articles. Duplicate articles in the same database and between research databases were deleted. 2. Screening for titles and abstracts. All retained article titles and abstracts were screened for eligibility. The primary eligibility includes: (1) The article was a quantitative empirical study; (2) The article examined the antecedents of individual resistance to change in the organizational context. All selected articles have been thoroughly reviewed and data extracted and coded. One author extracted data and another author reviewed the extracted data. Differences were resolved by discussing. 3. Eligibility. Full-text articles were independently reviewed and analyzed for eligibility by two authors. Any disagreements were resolved through discussions between the two authors until consensus was reached. The main eligibility criteria were: (1) Articles that presented empirical data with statistical inference procedures and results; (2) Articles were based on the three-dimensional definition of resistance to change; (3) Articles of excellent quality and relevance. Figure 1 provides an overview of the process for selecting articles in the PRISMA diagram.

The quality and necessary assessment process of the articles were carried out according to the PRISMA checklist (Moher.D, Liberati.A, Tetzlaff.J, Altman.DG, & The PRISMA Group, 2009). A pilot test was conducted on a random selection of 40 included articles, refining some of the items in the checklist. Two authors independently reviewed the quality of the article against criteria, each article was rigorously read in full and provided with three options for evaluation "Yes", "No" and "Pending". Articles meeting the criteria were included for review. "Pending" articles were cross reviewed by two authors, and any disagreements were reached through discussion.

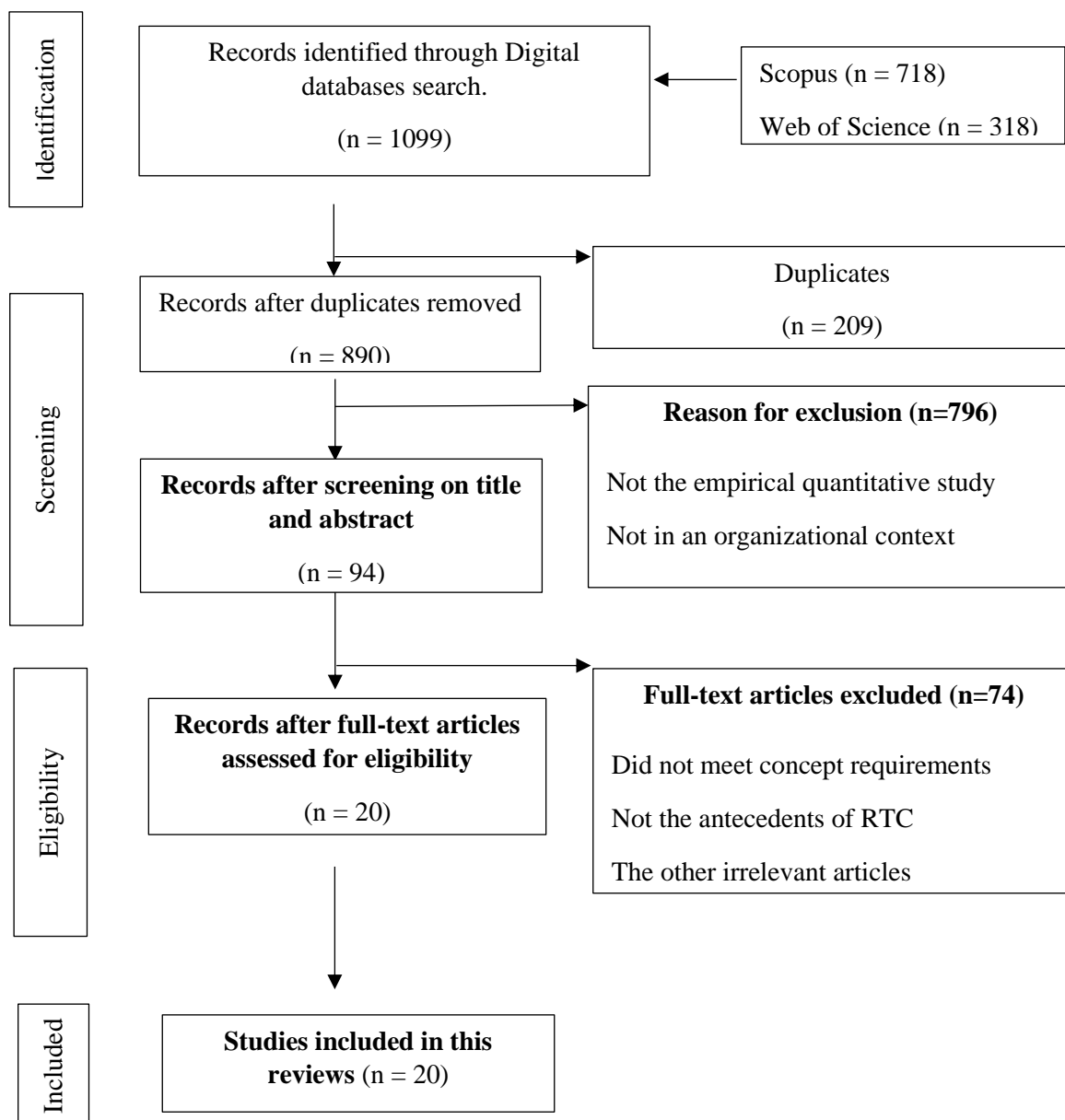


Figure1 The process for selecting articles in the PRISMA diagram.

Data Extraction and Management

Full-text articles were reviewed to identify data consistent with the objectives of this study, which were independently assessed, analyzed, and extracted by two authors, and then recorded in MS Excel spreadsheets. Divergences were discussed to ensure consistency. At this stage, the data has been identified and recorded include title, abstract, keywords, author name, journal name and year of publication, while using standardized data to extract the following data from each article: research objectives, supported theories (models), antecedent variables, research design, measurement and instruments, sample size and characteristics, area and industry studied, data analysis and results.

Results

The initial search in the database produced 1099 articles. After removing 209 duplicate articles, 890 articles remain. 94 articles left after 796 articles were eliminated during the screening for title and abstract. Because they failed to meet the following criteria: (1) the

article was not an empirical quantitative study; (2) the research was not conducted in an organizational context; (3) the irrelevant article that only mentioned topics that resist organizational change or a discussion of new ideas or suggest. Then the remaining 94 articles were screened in full text, and 74 articles were excluded: (1) article was not based on the three-dimensional definition of resistance change (such as the definition did not meet the requirements, the definition was vague, the definition was not within the scope of the study); (2) the article did not examine antecedents of individual resistance to change like examining the consequences of resistance to change, or resistance to change as a moderating variable; (3) the article that studied change only hypothetically, not related to actual organizational change behavior, or has no statistical inferencing process, empirical data and results; (4) 1 article was not in English. After exclusion according to the 4 criteria above, the remaining 20 articles were deemed relevant for this systematic review. Articles details included in Table 1.

Status of RTC

The results reported 9 articles (45 %) pointed out the support of theory (model) in detail. This indicates that the three dimensions of change resistance is being theoretically explored. Moreover, this topic has also been extensively studied in many countries. Most of the organizations studied were from the Netherlands(n=5), followed by United States (n = 2), Germany (n=2), Thailand (n=2), China-Taiwan (n=1), Israel (n = 1), Portugal (n = 1), Australia (n=1), Indian (n=1), Brazil (n=1), Greek (n=1), and 2 articles did not specify the country. Multiple types of organizational change have been studied, with mergers and acquisitions predominant (25%), followed by restructuring (15%), introduction of new technologies (15%) and policy changes (5%). Other types of change account for the rest of the article, and 3 articles did not specify the type of change. These studies involved diversified organizations and industries, including public organization (n=4), 2 articles of which were educational organization, healthcare organization (n=3), financial institution (n=3), financial and services company (n=2), housing corporation (n=1), market (n=1), defense industry (n=1), manufacture industry (n=1), and combining different organizations and industries (n=3), including public organizations, private sector, healthcare organizations, government, constructional industry, etc.

Table 1

Articles details included in the systematic review

NO	Author	Objective of the study	Theory/Model	Study design	Antecedents of RTC
1	Jager et al (2022)	To explore whether employee's trust in the organization can have an indirect influence on agility by reducing employee resistance to change in unplanned and planned change context	---	Cross-sectional design; Multicollinearity statistics, Regression analysis	Trust in the organization
2	Walk (2022)	To determine whether and to what extent leadership attitudes and support for change influence on followers' resistance to change	Construal level theory (Trope & Liberman, 2010)	Mixed-methods design; Multilevel linear regression	Leader resistance to change implementation; Lead attitudes towards change content; Follower attitudes towards change content
3	Singh et al (2022)	To examine the role of resistance to change as a mediator in the relationship between human resource practices and effective change implementation	The change hierarchy model(Ackerman, 1986)	Cross-sectional design; structural equation modelling (SEM)	Human resource practice (training/communication/reward)
4	Heath et al (2020)	To determine the how change information correlated with individual's affective and cognitive	Lewin's Force Field Analysis Model (Lewin, 1951)	Cross-sectional design; Smart PLS	Change information

		resistance to change			
5	Pereira et al (2019)	To investigate the antecedents of resistance in business process management (BPM) implementation, such as hierarchical status, departments, and trust in management	----	Partial least squares structural equation modeling (PLS-SEM)	Hierarchical position; Sector; Trust in management
6	Ferreira et al (2018)	To examine the relationship between organizational support and resistance to change is mediated by ego-resilience	Conservation of resources theory (Hobfoll, 1988,2001)and Organizational support theory (Eisenberger, Huntington, Hutchison, & Sowa, 1986)	Cross-sectional design; Regression analysis	Organizational support; Ego-resilience
7	Vos & Rupert (2018)	To examine the moderating impact of change depth on the relationship between leadership behaviors and resistance to change including both agent and recipient perspectives	----	Hierarchical linear regression analyses	Leadership behaviors
8	Amarantou et al (2018)	To investigate how several factors directly or indirectly influence employee resistance to change, including personality-related factors	---	Structural equation modelling (SEM)	Job perception; Job security; Communication quality; Participation in decision making; Employee-management relationship-Trustworthy; Attitude towards change; Disposition towards change; Anticipated impact of change

		and job-related factors			
9	Rafferty & Jimmieson (2017)	To examine the mediating role of resistance to change in the relationships between employees' perceptions of the extent of change and the frequency of change and insomnia and psychological well-being	---	Structural equation modelling (SEM)	Transformational Change ; Frequency of Change
10	Charoensukmongkol (2017)	To investigate mindfulness be associated with resistance to change during post-merger integration	The appraisal theory of stress coping during organizational change (Folkman, Lazarus, Schetter, & Gruen, 1986; Lazarus, 1991)	Cross-sectional design; Partial least squares regression (PLS)	Mindfulness (selfefficacy/ optimism)
11	De Ruiter et al (2017)	To examine the extent to which organizational policies and social atmosphere breach influence resistance to change and engagement in the first phase of change	The tripartite job demands–resources (JD-R) model	Cross-sectional design; Multiple regression analyses	Psychological contract breach (organizational policies/ social atmosphere breach)
12	Jones & Van de Ven (2016)	To examine whether relationships between change resistance and antecedents and consequences strengthen or weaken over time during the	----	Longitudinal research; Linear mixed effects regression	Supportive leadership; Organization fairness

		organizational change			
13	Charoensukmongkol (2016)	To investigate the relationship between mindfulness in psychological processes and employees' resistance to mergers and acquisitions (M&A)	---	Cross-sectional design; Partial least squares regression (PLS)	Mindfulness
14	Georgalis et al (2015)	To study relationship between change process characteristics and resistance to change, perceptions of justice act as a mediator	---	Cross-sectional design; Multiple linear regression analysis	Leader-member exchange (LMX); Participation; Information; Procedural justice
15	Meier et al(2013)	Revising some variables in the Model of acceptance of technical tools (TAM) and studying the impact of these factors on resistance to change	Model of acceptance of technical tools (TAM) (Venkatesh, Morris, Davis, & Davis, 2003)	Cross-sectional design; Regression analysis	Personal characteristics; Autonomy; Information and communication; Social influence; Participation; Technology acceptance
16	Chung et al (2012)	To investigate the connections between cognitive personality traits and resistance to change, and the link between three resistance variables (behavioral, cognitive, and affective)	----	Structural equation modelling (SEM)	Cognitive personality trait
17	Oreg & Berson (2011)	To examine how employees' intentions to	---	A multilevel analysis	Principals' conservation; Openness to change values; Transformational leadership behaviors;

		resist are influenced by a leader's personal attributes and transformational leadership behaviors			Dispositional resistance to change
18	van den Heuvel & Schalk (2009)	To investigate the relationship between fulfilment of the psychological contract and resistance to change	Psychological contract theory	Multiple linear regression analyses	Fulfilment of the psychological contract
19	Van Dam et al (2008)	To examine the relationship between characteristics of the daily work context and employees' resistance to change, and mediated by the change process	Leader-member exchange (LMX) theory (Graen & Uhl-bien, 1995)	Structural equation modelling (SEM)	Leader-member exchange; Perceived development climate; Information; Participation; Trust in management; Openness to job changes; Role breadth self-efficacy
20	Oreg (2006)	To examine the relationships among employees' personalities, the organizational context, and related work-outcomes and resistance	---	Structural equation modelling (SEM)	Dispositional resistance to change; Power and prestige; Job security; Reward; Trust in management; Social influence; Information

In addition, only 5 (25%) of the 20 articles examined both three aspects of resistance to change (cognitive, affective, behavioral) and its antecedents, and reported comprehensively and definitively how these variables correlated with each dimension. 1 article integrated the three dimensions into a single total resistance score as a whole study. There are only 2 articles involving the affective dimension, 4 articles on the behavioral dimension, and no separate study on the cognitive dimension. There are 2 articles on the affective dimension and cognitive dimension, 1 article on the affective dimension and behavioral dimension, 1 article on the behavioral dimension and cognitive dimension, although 4 articles were based on resistance to change including three dimensions, the correlation between each dimension

and its antecedents were not specifically reported, only to give the results as a whole conclusion. In general, there are still few articles research on the antecedents of three aspects of resistance to change at the same time.

Antecedents of Resistance to Change

This systematic review integrated the antecedents of individual resistance to change in the existing studies into two categories: personal characteristics and organizational factors.

Personal characteristics Past research has shown that personal characteristics can influence resistance to change in certain individual personality differences and psychological variables ways. A study on employees of the medical organizations by Amarantou et al (2018) and found that resistance to change was (indirectly) influenced by personality behavioral traits and this relationship was mediated through attitude towards change. In addition, Oreg (2006) found that individuals' dispositional resistance to change was related to their behavioral and affective resistance to change, and that affective resistance was more strongly correlated than behavioral resistance. This suggests that employees with negative emotions are more likely to resist change due to the dispositional characteristics. Likewise, in Oreg and Berson's (2011) study from Israeli public school and found that teachers' change resistance intentions were significantly and positively related to principals' dispositional resistance to change. However, in contrast to other studies, Meier et al (2013) found that the employees' dispositional resistance to change did not significantly affect the employees' resistance to change. Additionally, A study by Chung et al (2012) found that both the affective and cognitive aspects of resistance to change were positively correlated with the behavioral aspect, and the affective aspect was positively correlated with the cognitive aspect. Cognitive flexibility of cognitive personality traits was significantly negatively correlated with behavioral, cognitive, and affective resistance. This means, individuals' cognitive flexibility reduced negative emotions, idea, and intentions to resistance, moreover affective and cognitive aspects of resistance can lead to behavioral resistance, while the affective aspect of resistance can cause cognitive resistance. Furthermore, Van Dam et al (2008) identified openness to job changes and organizational tenure as individual-level characteristics and found they were both significantly related to employee resistance to change. The more open employees were about changing jobs, the more likely they were to see the organizational change in terms of benefit. Also, organizational tenure showed a positive relationship with resistance to change. The longer individuals serve in an organization, the greater they invest and benefit from the work context (Rusbult & Farrell, 1983). Since organizational change could cause these damages, so long-tenured employees may be more resistant to change than short-tenured employees. Furthermore, mindfulness also has been proved to be an antecedent to resistance. In Peerayuth Charoensukmongkol's (2017) study, mindfulness as a personal characteristic, the negative relation among mindfulness and resistance to change may be indirectly accounted by the extent of optimism and general self-efficacy of mindfulness. Specifically, employees with higher optimism had lesser resistance to change, and general self-efficacy was related to reduced organizational change resistance. In another Charoensukmongkol's (2016) study on employee behavioral resistance to mergers and acquisitions (M&A) reported that employees with higher degrees of mindfulness had a lower cognitive evaluations of M&A and affective response to M&A, while lower cognitive evaluations and affective responses were associated with less behavioral resistance to M&A. Hence mindfulness may protect employees from making pessimistic evaluations of M&A, thereby reducing the risk of employee emotional reactions and behavioral resistance to M&A.

Organizational factors Individual resistance to organizational change was also influenced by their perceptions of organizational factors such as organizational context, change process and change outcomes. Particularly, trust, leadership, leader-member relationships, participation, communication, and justice have been identified to be significantly correlated with individual resistance to organizational change.

Oreg (2006) investigated the relationship between the dimensions of resistance and personality, organizational environment, and some work-related outcomes. He found that trust in management was significantly and negatively related to behavioral resistance, as well as affective resistance, and more substantially related to cognitive resistance. Similarly, Pereira et al (2019) examined the antecedents of resistance at each stage of business process management (BPM) implementation in the Brazilian market and found that trust in management had a significant influence on three dimensions of resistance (affective, behavioral, and cognitive), and as the stage progresses, this effect increases. Therefore, employee who lack trust in management shown enhanced behavioral, cognitive, and affective resistance. Van Dam et al (2008) found similar results in a study, trust in management as a change process fully mediates the relationship between leader-member exchange relationships (LMX), perceived developmental climate and resistance to change. This means employees who perceive high-quality LMX, a strong development climate and develop more trust in management and less resistance to change. In addition, a research by Jager et al (2022) reported that a negative correlation between organizational trust and resistance to change in both unplanned and planned change context. This also suggests that greater confidence in the organization is associated with lower resistance to change. That is, when employees trust their employers, they may show less resistance to change. Furthermore, resistance to change has been found to be influenced by positive employee-management relations (Amarantou et al., 2018). This result has also been supported in past studies. Georgalis et al (2015) conducted a research of Australian workplace employees' resistance to change showed that LMX was negatively related to resistance to change. Likewise, Van Dam et al. (2008) reported the higher the quality of the LMX relationship, the lower the resistance to change. These findings imply the importance of high-quality LMX relationships in reducing resistance to change. Consequently, organizational change is more likely to be implemented smoothly in a work environment characterized by intimate and encouraging connections between leaders and subordinates. Moreover, the leader's behavior has also shown influenced on the reactions of their followers to organizational change. A study of principals and teachers in the German public education sector by Walk (2022) shown that a positive correlation between leader resistance and follower resistance when leaders are recipients or executors of change. The higher the leader's willingness to resist, the higher the follower's willingness to resist. But Oreg and Berson's (2011) study demonstrated that followers' intention to resistance to organizational change was negatively correlated with transformational leadership behavior. Likewise, Jones and Van de Ven (2016) believed that a negative relationship between supportive leadership and resistance to change, and this relationship became more significant over time. Whereas, Vos and Rupert (2018) from the perspective of both the agent and the receiver, examined the relationship between change leadership behavior and recipients' resistance, they found that creative behavior could increase recipients' resistance, and agents perceived higher levels of resistance than receivers, and this relationship was moderated by change depth. This may suggest that individual resistance to change is influenced by specific leaders. In addition, Amarantou et al (2018) reported resistance to change was also influenced by employee participation in the decision-making process. As employee participation in

decision-making think more benefits and drawbacks of change. Similarly, Van Dam et al.'s (2008) findings are consistent with the earlier conclusions of Johnson, Bernhagen, Miller and Allen's (1996), resistance could be mitigated by providing opportunities for employee to engage in change planning and implementation. However, Georgalis et al (2015) regarded participation as an antecedent to investigate the effect of justice on resistance to change and did not find that participation significantly predicts resistance to change, but procedural justice and information justice mediated the relation between participation and resistance. Hence, they deemed that resistance to change can be lessened by improving the fairness and openness of the decision-making procedure and involving employees in the change process. Besides, in Meier et al.'s (2013) research report, resistance to change was significantly influenced by the perceived quality of the information, they also stated that the degree of information, the way it was disseminated, and the content of the information could reduce resistance to change. Moreover, this relationship was significant for the cognitive and affective components of the resistance to change, but behavioral resistance was not significant. Analogously, Heath et al (2020) studied patients reactions to the introduction of personal health records (PHR) and also discovered that information about change can reduce resistance. The positive perception of information about change was both negatively correlated with affective resistance and cognitive resistance. This implies that an individual who obtains some information related to change may experience less negative emotions and thoughts about change. However, Oreg (2006) investigated information as the change process was an antecedent to resistance and found that information and behavioral resistance, cognitive resistance were significantly correlated, but not affective resistance. Specifically, the less change related information, the lower behavioral resistance and cognitive resistance. In addition, Van Dam et al (2008) examined the relationship between the work environment and employee resistance to change through mediating role of change process, and also found that resistance can be diminished by providing precise and timely information. Overall, the results support previous conclusions that information about change may be essential for resolving resistance to change (Johnson et al., 1996; Kotter & Schlesinger, 2008). However, in Georgalis et al.'s (2015) study, they did not find the significant correlation between information and resistance to change, while all three dimensions of justice (procedural, informational and interpersonal) could mediate this relationship. This may show that mitigating employee resistance to change also requires fair delivery of timely and pertinent information about change. Moreover, Singh et al (2022) examined the relationship between effective change implementation and human resources practices and employee resistance to change during the merger of public sector banks in India. Only the behavioral resistance was considered and found that communication as a factor of human resources practices had a highly negative correlation with change resistance. Since communication reveals the benefits the organization may provide after the change, employees will exhibit less resistance as a result of better communication, it can reduce employee anxiety and uncertainty. Conversely, Amarantou et al (2018) found that resistance to change was not influenced by the quality of communication.

In addition, resistance to change has also been found to be directly or indirectly influenced by other organizational factors in the selected studies. Two studies have identified fairness during the change as a major contributor to their positive attitudes toward organizational change. Jones and Van de Ven (2016) found that fairness weaken individual resistance to change. Georgalis et al (2015) discovered information justice was negatively related to resistance to change, but procedural and interpersonal justice were not significantly

connected with resistance to change. Moreover, job security was confirmed as a factor (indirectly) influencing resistance to change in Amarantou et al.'s (2018) study. While in Oreg's (2006) research, job security was found to be correlated with affective and cognitive dimensions of resistance. Furthermore, two studies found psychological contract associated with resistance to change. A significant negative correlation was found between organizational psychological contract fulfillment and affective resistance by (van den Heuvel and Schalk, 2009). While De Ruiter et al (2017) studied the influence of organizational policy breach and social climate breach on resistance to change, two categories of psychological contract breaches, they indicated that social climate breach was positively related to affective resistance, while organizational policy breach was positively correlated with cognitive resistance to change. Besides, social influence has also been proven that significantly influence on resistance to change (Meier et al., 2013). Oreg (2006) also found similar results, social influence was significantly associated with behavioral resistance and affective resistance. Besides that, some organizational factors have also been shown to be associated with resistance to change in one very few studies. Such as, inherent reward, power and prestige are both significantly associated with cognitive resistance and affective resistance (Oreg, 2006). The relation among organizational support and employee resistance to change (affective and behavioral) was mediated by ego-resilience (Ferreira et al., 2018). In Meier et al.'s (2013) study, when autonomy was used as the outcome variable, it had a significant influence on behavioral aspect of resistance to change. Also employee resistance to change was influenced by technology acceptance. Besides, developing climate within an organizational work environment was correlated with lower resistance to change has also proven by Oreg's (2006) study. Rafferty and Jimmieson (2017) demonstrated transformational change and frequency of change correlate with the affective and behavioral resistance to change.

Theory (model)

The reviewed articles took a wide range of theoretical perspectives, 9 articles (45%) clearly stated that they were supported by theories (models), and they were different theories (models). First, four theories were used to support experimental research. Construal level theory (Trope & Liberman, 2010) has been used to explain emergent literature in the context of organizational change (Berson et al., 2021). Walk (2022) used construal level theory to study the influence of leaders' attitudes and leaders' specific support for change on followers' resistance to change, when the leader acts as an implementer of change. Peerayuth Charoensukmongkol (2017) based on the appraisal theory of stress coping during organizational change (Folkman et al., 1986; Lazarus, 1991) and demonstrated the mindfulness can mitigate employee resistance to change in the post-merger integration process. While van den Heuvel and Schalk (2009) explained how fulfillment of the psychological contract and individual resistance to change are correlated using psychological contract theory. Moreover, based on Leader-member exchange (LMX) theory (Graen & Uhl-bien, 1995), Van Dam et al (2008) investigated the relationship between work environment including leader-member exchange and perceived developmental climate, are associated with employee resistance to change through the mediation of change process factors. Second, the four models were as follows: Singh et al (2022) based on the change hierarchy model (Ackerman, 1986), and examined the relationship between effective change implementation and human resource practices (communication and training) and employee resistance to change, according to Griffith-Cooper and King (2007) and Anderson and Ackerman (2001),

multiple layers of communication, human resources and training were considered to be part of the important successful factors in the model. Heath et al (2020) used Lewin's force field analysis model (Lewin, 1951) to interpret information related to change can alleviate resistance. The tripartite job demands–resources (JD-R) model was used by De Ruyter et al (2017) to analyze the effects of of disruption of organizational policy and social atmosphere on resistance to change. Based on the model of acceptance of technical tools (TAM) Venkatesh et al (2003); Meier et al (2013) explored the extent to which factors other than technology acceptance can influence employee resistance to change. Third, conservation of resources theory (Hobfoll, 1988; Hobfoll, 2001) and Organizational support theory (Eisenberger et al., 1986) were integrated by Ferreira et al (2018) into a model to explain how various organizational support models (such as supervisory support, developmental rewards) influenced on ego-resilience and how those factors related to both group and individual affective resistance and behavioral resistance. This method revealed that employee-perceived organizational support can be viewed as a resource. According to Conservation of resources theory, when employees realized that their resources are under danger, they often devise plans to protect those resources. In conclusion, empirical studies with theoretical support is still limited and employed different theoretical perspectives, usually operating at one theoretical level.

Research Methods

This systematic review identified some important methodological trends. First, the 20 quantitative empirical research articles tended to use structured, self-reported questionnaires to collect data. In one of these studies, although mixed methods were used to collect data, qualitative data from in-depth interviews with employees was collected before the change, with the aim of developing a questionnaire for quantitative research after the change. However, most of the research designs were cross-sectional designs (n=10), and longitudinal designs were extremely limited (n=1). There are 9 studies that did not specify the research design, but in the research recommendations, it was hoped to use longitudinal research designs in the future to avoid research limitations. In addition, almost all quantitative research used correlation design, the degree and strength of variables were presented through descriptive statistical analysis, and the verification of the relationship between variables used a variety of research methods, the most commonly used research method was Structural equation modelling (SEM) (n=6); followed by Partial least squares regression (PLS) (n=4) and Multilevel model (n=4); last was Regression analysis (n=3) and Multiple linear regression (n=3), these quantitative research methods break the static single research mode. Moreover, Oreg's (2003 ;2006) Resistance to Change Scale was widely used in these 20 articles to measure the individual resistance to organizational change (three dimensions), among which Oreg's (2006) scale (n=17); Oreg's (2003) scale (n=2), and one article did not clearly state the source of the scale.

Discussion

Antecedents The principal objectives of this study was to identify antecedents influencing individual resistance to organizational change, also review the supporting theories (models) and research methods. Findings showed that only two factors, trust in management and cognitive flexibility of cognitive personality traits, were correlated with all 3 dimensions of resistance to change (affective, cognitive, and behavioral).

For personal characteristics, Oreg's (2006) findings support the previous Oreg's (2003) conclusion that the dispositional resistance to changing showed the correlation with affective dimension of resistance to change was higher than the behavioral dimension. This implies that employees with negative emotions are more probable to resistance to organizational change, as their personality tendencies. Furthermore, according to Chung et al (2012), affective and cognitive aspects of resistance could result in behavioral resistance, while affective resistance was positively correlated with cognitive resistance. This is consistent with Piderit (2000); Schlesinger (1982), that resistance usually begins with a cognitive evaluation, then develops an emotional response, and finally becomes a behavioral resistance. Therefore, the 3 components of resistance to organizational change are related, and individual negative emotions towards organizational change may lead to negative ideas, thereby generating behavioral intentions to resist change. Therefore, the above findings support the view that resistance to organizational change has 3 dimensions (affective, cognitive, and behavioral) presented by researchers (Oreg, 2006; Piderit, 2000). On the other hand, optimism, as a personal characteristic related to mindfulness, has been demonstrated to lower resistance to organizational change, and employees who are more optimistic have less resistance to change (Charoensukmongkol's, 2016; Peerayuth Charoensukmongkol, 2017). Likewise, employees' cognitive flexibility was found to reduce their negative emotions, thoughts, and behavioral intentions about resisting change (Chung et al., 2012). Hence, Organizations can reduce the risk of resistance by influencing employees' mindfulness and cognitive flexibility to prevent the formation of negative thoughts. However, Meier et al.(2013) found that the employees' dispositional resistance to change did not significantly affect the employees' resistance to change. This may be affected by factors such as sample selection and research methods, which need to be further verified in future studies.

Organizational factors aspects, employees with lower levels of trust in management exhibited more resistance in their affect, cognition and behavior, and this effect can increase with the progress of the change stage (Pereira et al., 2019). Moreover, in both contexts of planned and unplanned change, the higher employees trust in the organization, the lower the resistance to change (Jager et al., 2022). These results demonstrate that when individuals have confidence in their employer, they could be less resistant to change. On the other hand, leader resistance was found to be positively correlated with follower resistance when leaders acted as change enforcers rather than initiators (Walk, 2022), but supportive leadership has become increasingly influential over time in lessening resistance to change (Jones & Van de Ven, 2016). These may imply that particular leaders and their activities have an impact on an individual's resistance to change. Additionally, this systematic review shown leaders could focus on cultivating positive relationships with employees in the daily work environment, as the high-quality leader-member relationship between leaders and subordinates is one of the significant aspects in lowering individual resists change, this relationship is conducive to employees' participation in change decision-making and access to information related to change, which is also a reflection of employees being treated fairly. Van Dam et al.'s (2008) finding confirmed the previous conclusions of Johnson et al.'s (1996), that employee involvement in the planning and execution of change could help to lower resistance. This standpoint is also supported by Georgalis et al (2015), they found organizational change could be more likely to be successfully implemented in a work environment where the change information is timely communicated in a fair manner within mutually supportive leadership and subordinate relationships. Furthermore, information has been proven to correlate with employee resistance to change. Pereira et al (2019) demonstrated employee resistance to

change was higher when they had more information about change, and this relationship was more significant on the affective and cognitive dimensions of resistance than on the behavioral dimension. This may imply that spreading positive information can help to lessen the negative emotions associated with change. While Oreg (2006) found that the less information about change, the less behavioral and cognitive resistance. This seems to contradict previous findings that employee resistance to change was less likely if they had more information about it (e.g., Wanberg & Banas, 2000). Thus, the relationship between information and resistance to change may also be influenced by the content, quality and delivery of information. In addition, the conclusion of Singh et al (2022) is similar to the findings of Tanner and Otto (2016), communication has been proved to help employees who are resistant to change to eliminate the fear and worry of change, emphasizing the importance of communication can reduce change resistance, and can enhance communication efficiency through training. This conclusion backs up the viewpoint put forth by Pardo-del-Val and Martinez-Fuentes (2003) that training can reduce communication difficulties and thus alleviate resistance to change. Finally, a justice climate is also an antecedent of resistance to change. Jones and Van de Ven (2016) pointed out that in the early stages of change, organizational justice has a strong impact on reducing resistance to change, and Three-Stage Change Theory (Lewin, 1951) shown that justice were key factor in the implementation of change. Moreover studies by Charoensukmongkol's (2016) and Georgalis et al (2015) further support past conclusions that shoddily communicated change is often perceived as unfair and can cause dissatisfaction with management (Daly & Geyer, 1994), while justice of the decision making procedure, and timely usefulness information about change and involving employees in the change process may make employees feel valued and more confident and trust in the organization (Stanley et al., 2005), as a result, employees are less likely to resist change.

Theory Our results suggest that there is limited empirical research using theory as a basis, moreover these studies employ almost different theoretical perspectives and models, and often operate at the level of a single theory (model) or limit to only one theory in a study. The disadvantage is that it may lead to low credibility of research results related to this field. In this review, force field analysis model (Lewin, 1951) has been found to explain information related to changes that can mitigate resistance (Heath et al., 2020). According to Lewin (1951), the model provided an overview of the balance between force driving change and the forces resistance change in an organization, change occurs by unfreezing the existing state, migrating to a changed circumstance, and then refreezing to make the change relative to permanent. Further, unfreezing is the initial phase of Lewin's Three-Stage change theory (Lewin, 1951). Resistance to change is a definition often discussed with the unfreezing phase in Lewin's (1951) change theory (Armenakis & Bedeian, 1999). When change happens, it needs a force to maintain balance, which can be achieved by increasing the force that promotes change or decreasing the force that prevents it. Lewin's (1951) change theory is the foundational theory of change management which identifies the crucial elements for effective change implementation (e.g., justice, climate). However, some researchers stated that the change theory (Lewin, 1951) was linear and may not be able to effectively describe, such as the influence of complex relationships between leaders and subordinates on resistance to change (Bakari et al., 2017; Bartunek & Woodman, 2015). Therefore, future research may try to integrate change theory (Lewin, 1951) with other theories as a strong theoretical support for empirical research. For instance, social exchange theory (Blau, 1964), theory of planned behavior (Ajzen, 1991).

Research methods Our systematic review revealed many differences in study design and research methods employed, manifested in operational diversity. Since only empirical quantitative research methods were focused on, the conclusions of other research methods (e.g., qualitative research, mixed research) were unknown. Moreover, cross-sectional research designs were widely used, so it was difficult to draw causal inferences from data collected at a certain point in time. In future studies, we recommend trying a longitudinal research design to investigate the causal influence of individual characteristics and organizational factors on resistance to change. Furthermore, our systematic review shown some limitations related to sample selection. The sample bias came from the criteria set for data extraction, so the research conclusions may be biased against some specific countries or organizations. Firstly, the countries covered and the types of organizations in the research included are still very limited. There are few studies on organizations in developing countries, especially in Asia and Africa. Researchers rarely pay attention to non-profit organizations and service industries. Second, due to the entire reliance on English-language articles, the inability to grasp the research status of journals in other languages may lead to underrepresentation of research results. Finally, because the "keywords" required for the search were not as extensive, and only two electronic databases (Scopus, Web of Science) were used. So fewer articles are included in the analysis. Besides, this study did not consider the influence of control variables. On the other hand, there is a lack of comparative studies to understand the theoretical development and research differences in the context of different national organizations.

Conclusion

This SLR followed the PRISMA (Liberati et al., 2009), and adopted a rigorous review process for the articles, which were independently assessed by two authors to ensure the quality and accuracy. We reviewed empirical quantitative research on the antecedents of resistance to change based on the three-dimensional concept, including the relationship between three dimensions of resistance to change and its antecedents, the supporting theories (models) and the research methods employed, discussing the strengths and limitations and provide recommendation for future research directions. A review of 20 articles shows that some progress has been made in the field of research on the factors that influence individual resistance to organizational change, but there are still deficiencies, and this research area still has exploration value. Major conclusions summarized in Table 2.

The theoretical (model) foundation used in the past is relatively weak. We recommend that future research try to integrate multiple theories as the theoretical basis for empirical research to enhance the credibility of the research conclusions. In terms of limitations, fixed data extraction criteria may lead to underrepresentation of research conclusions. In future research, we advise attempting to expand research findings from qualitative research, mixed research methods and experimental design. Furthermore, we encourage more longitudinal research design to contribute meaningfully to causal inferences between resistance to change and its antecedents, thereby increasing the rigor and breadth of the research field. In addition, this systematic review supports the three dimensions (affective, cognitive and behavioral) of organizational resistance to change recommended in previous studies (Oreg, 2006; Piderit, 2000), and implies that the three-dimensional concept of resistance to change may more precisely explain the relationship between influencing factors and specific resistance components, and provide suggestions for improving the effectiveness and reliability of the management of organizational change resistance factors. Specifically, since cognitive

flexibility could decrease the resistance to organizational change, organizations can give priority to candidates who are reflective and have insight when recruiting employees. Moreover, through mindfulness training to assist employees in adapting to a changing environment and becoming ready for organizational change (Avey et al., 2008; Gärtner, 2013). On the other hand, before and during the change process, the organization should pay attention to the feelings of employees, cultivate high-quality leadership-employee relationships in an climate of justice and respect, and improve the fairness and transparency of the decision-making process, and also allow employees to gain extensive opportunities for participation, strengthen effective communication of organizational change through training, and convey useful, timely and accurate change information in a justice way, to enhance employees' trust in employers and confidence in organizational change, so as to scientifically manage change resistance factors and reduce risk of personal resistance to change. Overall, this SLR fills a gap in the systematic literature on the resistance to change, makes a meaningful contribution to research on human resource development and change management, and gives managers and change agent useful guidance on how to handle people who are resistant to organizational change.

Table 2
Major Conclusions

	Findings	Recommendations
Antecedents	1. Personal characteristics: Cognitive flexibility; Dispositional resistance to change; Mindfulness. 2. Organizational factors: Trust in management; Leadership; Leader-member relationships; Trust; Participation; Communication; Justice.	1. Priority to candidates who are reflective and have insight when recruiting employees; 2. High-quality leadership-employee relationships in an climate of justice and respect; 3. Fairness and transparency of the decision-making process; 4. Extensive opportunities for participation; 5. Effective communication through training, and convey useful, timely and accurate change information in a justice way; 6. Enhancing employees' trust in employers and confidence in organizational change.
Theory	1. The theoretical (model) foundation used in the empirical research is relatively weak; 2. At the level of a single theory (model) or limit to only one theory in a study.	Integrating multiple theories as the theoretical basis for empirical research to enhance the credibility of the research conclusions.
Research methods	Cross-sectional research designs were widely used.	Trying more longitudinal research design to investigate the causal influence.
Limitations	Only two electronic databases and fixed data extraction criteria may lead to underrepresentation of research conclusions.	Using more relevant keywords and attempting to expand research findings from qualitative research, mixed research methods and experimental design.
Contribution /Value	This SLR followed the PRISMA, objectively and comprehensively summaries of empirical research on resistance to change. Findings supports the three dimensions (affective, cognitive and behavioral) of organizational resistance to change recommended by Oreg (2006) and Piderit (2000) in previous, and also implies that the three-dimensional concept of resistance to change may more precisely explain the relationship between influencing factors and specific resistance components. This SLR offers recommendations for theory and methodology in future and suggestions for improving the effectiveness and reliability of the management of organizational change resistance factors, fills the gap in the systematic literature review on antecedents of resistance to organizational change, and makes a	

	meaningful contribution to research on human resource development and change management, also gives managers and change agent useful guidance on how to handle people who are resistant to organizational change.
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