T.C.
ISTANBUL TICARET UNIVERSITY
INSTITUTE OF GRADUATE SCHOOL
DEPARTMENT OF BUSINESS ADMINISTRATION
DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION

THE IMPACT OF CHANGE-RELATED LEADER BEHAVIORS ON DISPOSITIONAL RESISTANCE AND RESPONSE TO COVID-19-INDUCED CHANGE IN HIGHER EDUCATIONAL INSTITUTIONS IN THE GAMBIA

Ph.D. Dissertation

Lamin W. SAIDYKHAN

Nurgül KELEŞ TAYŞİR

Istanbul, 2024.

T.C.
ISTANBUL TICARET UNIVERSITY
INSTITUTE OF GRADUATE SCHOOL
DEPARTMENT OF BUSINESS ADMINISTRATION
DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION

THE IMPACT OF CHANGE-RELATED LEADER BEHAVIORS ON DISPOSITIONAL RESISTANCE AND RESPONSE TO COVID-19-INDUCED CHANGE IN HIGHER EDUCATIONAL INSTITUTIONS IN THE GAMBIA

Ph.D. Dissertation

Lamin W. SAIDYKHAN

100044024

Nurgül KELEŞ TAYŞİR

Istanbul, 2024.

DECLARATION

I declare that this Ph.D. dissertation titled "The Impact of Leadership on the Effective Implementation of Organizational Change," submitted by me to Istanbul Commerce University, in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Ph.D.) in Business Administration, is my original work and has not been submitted previously, in whole or in part, to qualify for any other academic award. All the sources of information used in this dissertation have been acknowledged and referenced. I declare that I have adhered to all the principles of academic integrity and honesty in accordance with the Postgraduate Regulations of YOK and the ethical standards and guidelines of Istanbul Commerce University in preparing this dissertation. All matters contained in this thesis are my opinion and do not reflect the official view of Istanbul Commerce University.

Lamin W. Saidykhan

ABSTRACT

Higher Educational Institutions in the Gambia have had to change their teaching methods because of COVID-19. Most classes were conducted online instead of the traditional in-person or on-campus formats. Therefore, this study investigates the influence of leaders' behavior on the effective implementation of this change in the Gambia. The study also examines the mediating role of followers' response to change and the moderating role of leaders' behavior on followers' dispositional resistance to change in the change process. Data was collected from 238 academic staff working in higher education institutions in the Gambia and analyzed with the help of SmartPLS 4.1.0.0 using partial least squares structural equation modeling (PLS-SEM). The results indicate a positive relationship between leaders' behavior and change effectiveness. Furthermore, followers' response to change mediates the relationship between leaders' behavior and change effectiveness. However, the results do not support the moderating role of leaders' behavior on the relationship between dispositional resistance to change and followers' response to change. The study is concluded with implications and directions for future research.

Keywords: *Leaders' behavior; response to change; change effectiveness; dispositional resistance to change.*

ÖZET

Gambiya'daki yüksek öğrenim kurumları COVID-19 sebebiyle eğitim yöntemlerini değiştirmek zorunda kaldılar. Çoğu eğitim kurumu, geleneksel sınıf veya kampüs eğitimi yerine online eğitime yönelmiştir. Bu çalışmada, Gambiya'daki söz konusu değişimin etkin uygulanmasında liderlerin etkisi üzerine odaklanılmıştır. Bu araştırma ayrıca, takipçilerin değişime tepkisinin aracı rolünü ve lider davranışlarının takipçilerin değişime karşı direnç eğilimlerini değiştirici rolünü de incelemektedir. Araştırma verileri yüksek öğretim kurumlarında çalışan 238 akademik personelden toplanmış ve SmartPLS 4.1.0.0 kullanılarak Kısmi En Küçük Kareler Yapısal Eşitlik Modeli Uygulaması (PLS-SEM) yöntemi ile analiz edilmiştir. Sonuçlar, liderlerin davranışıyla değişimin etkinliği arasında olumlu bir ilişki olduğunu göstermektedir. Ayrıca, takipçilerin değişime olan tepkileri, liderlerin davranışı ile değişimin etkinliği arasındaki ilişkinin neden ve nasıl olduğunu açıklayıcı etkiye sahiptir. Ancak, araştırma sonuçları lider davranışlarının değişime karşı direnç eğilimleri ile takipçilerin değişime tepkisi arasındaki ilişkiyi değiştirici rolü olduğu hipotezini desteklememektedir. Bu çalışma, gelecekteki araştırmalar için bazı uygulamalar ve yönlendirmelerle sonuçlandırılmıştır.

Anahtar kelimeler: *Lider davranışları, değişim cevabı, değişim etkinliği, değişime olan direnç eğilimi.*

ACKNOWLEDGMENT

I want to extend my sincere gratitude to my supervisor, Assoc. Prof. Nurgül Keleş Tayşir, for her invaluable mentorship, encouragement, flexibility, support, and patience throughout my Ph.D. and research work. She is always available to guide and support me whenever I need help or have questions regarding my study or research work. These have been very important in shaping this dissertation and have kept me focused and inspired. Thank you so much, Assoc. Prof. Nurgül. I am incredibly fortunate to have selected such an exceptional supervisor. You are one of the very best.

I would also like to thank the Heads of the Higher Educational Institutions in the Gambia who have granted permission for my questionnaire to be administered in their respective Institutions, especially Mr. Alieu K. Jarju, the Director General of MDI, who not only stopped at granting permission but was also very instrumental in making follow-ups to encourage other staff to participate. Your efforts are genuinely appreciated. I would also like to thank the staff of Higher Educational Institutions in the Gambia who responded to my questionnaire for their time, support, and participation in this research. Your willingness to share your insights and experiences has enriched this research and contributed to its depth and quality.

I sincerely thank Istanbul Commerce University for providing me with a full tuition waiver scholarship to pursue this Ph.D. program. I also want to thank my employer, the University of the Gambia, for their financial support in the form of a stipend to cover my living expenses during my studies. This academic endeavor would not have been as smooth without your financial support.

A very special thanks to Prof. Hacer Şaduman Okumuş, Prof. Murat YALÇINTAŞ, Mr. Meşut Olgun, and Mr. Mehmet Murat Kazancıoğlu for their invaluable support and encouragement throughout my program and time in Turkey. To my other professors, especially Prof. Necla Öykü İYİGÜN and Assoc. prof. Ufuk BAŞAR, thank you very much for the knowledge and feedback, which have contributed significantly to my academic and personal growth.

It would be a great injustice if I didn’t acknowledge my friend, Duygu Erol, for her constant support, motivation, and understanding during challenging times. Your friendship and belief in me have strengthened and inspired me. To my other Ph.D. friends and study bodies, Ekin Nakay and Imran Wajid, thank you for your time and support.

Finally, I must express my most profound gratitude to my family, especially my parents, wife, children, and uncle – Ebrima Saidykhan, for their unwavering support, continuous prayers, patience, and encouragement throughout my life. To my late mother, Wonto Saidykhan, I wish you were here to witness this achievement. Your departure has left a deep void in my heart and life that no one can fill. I could not have achieved this without you all. You mean the world to me; thus, I dedicate this paper to all of you.

Thank you to everyone who has supported me in this journey. Your contributions have been invaluable, and I am deeply grateful.

TABLE OF CONTENTS

DECLARATION iii
ABSTRACT iv
ÖZET v
ACKNOWLEDGMENT vi
LIST OF TABLES x
LIST OF FIGURES xi
LIST OF APPRIVIATIONS xii
INTRODUCTION 1
1. LITERATURE REVIEW 4
1.1. Leadership 4
1.1.1. Transformational Leadership 5
1.1.2. Change Related Leader Behaviors 8
1.1.2.1. Visionary Leadership 8
1.1.2.2. Supportive Leadership 12
1.1.2.3. Participative Leadership 15
1.2. Organizational Change 20
1.2.1. Cognitive Dissonance 21
1.2.2. The Depth of Intervention 21
1.2.3. The Psychological Contract 22
1.2.4. Dispositional Resistance 24
1.3. Conceptual Model and Hypotheses Development 25
1.3.1. Leaders' Behaviors 25
1.3.2. Leaders' Behavior and Change/Organizational Outcomes (Path 1) 26
1.3.3. Leaders' Behavior and Followers' Response to Change (Path 2). 28
1.3.4. The Mediating Role of Followers' Resistance to Change (Paths 2 and 3). 31
1.3.5. The Moderating Effect of Leaders' Behaviors (Path 4) 32
2. RESEARCH METHODOLOGY 36
2.1. Research Design 36
2.2. Data Collection Process 36
2.3. Measures 37
2.3.1. Dispositional Resistance to Change 37

2.3.2. Response to Change 37
2.3.3. Leaders' Behavior 38
2.3.4. Change Effectiveness 39
2.4. Population and Sample 39
2.5. Unit of Analysis and Time Horizon 41
2.6. Data Analysis Methods 43
2.7. Ethical Considerations 48
3. RESULTS AND ANALYSIS 50
3.1. Data Distribution 50
3.2. Correlation Analysis 51
3.3. Measurement Model Assessment 52
3.3.1. Factor Loadings 52
3.3.2. Construct Reliability 54
3.3.3. Validity 55
3.3.3.1. Convergent Validity 55
3.3.3.2. Discriminant Validity 56
3.4. Structural Model Assessment 57
3.4.1. Collinearity 57
3.4.2. Significance of Structural Model Relationships (Hypothesis Testing) 57
3.4.3. Mediation Analysis 60
3.4.4. Moderation Analysis 62
3.4.5. The Model's Explanatory Power 64
3.4.6. The Model's Predictive Power 66
4. CONCLUSIONS, IMPLICATIONS, AND LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH 67
4.1. Conclusion 67
4.2. Theoretical Implications 70
4.3. Practical Implications 71
4.4. Limitations and Directions for Future Research 72
REFERENCES 75
APPENDIX 92

LIST OF TABLES

Table 1: Population, Sample, and Response Rate.....41
Table 2: Demographic Profile of Respondents. N = 238.....42
Table 3: Skewness and Kurtosis 51
Table 4: Correlation Results 52
Table 5: Indicator loadings 53
Table 6: Construct Reliability.....55
Table 7: Construct Convergent Validity (AVE) 56
Table 8: Heterotrait-Monotrait ratio (HTMT) - Matrix 56
Table 9: Collinearity Statistics (VIF).....57
Table 10: Results of Structural Model Path Coefficient (Direct Relationships). 58
Table 11: Summary of the Mediation Results 61
Table 12: Summary of the Moderation Results 62
Table 13: R-Square 65
Table 14: f-square 65
Table 15: PLSpredict Results Report.....66

LIST OF FIGURES

Figure 1: Model of Leadership and Organizational Change 35
Figure 2: Structural Model Assessment Procedure 44
Figure 3: Guidelines for Using and Interpreting PLSpredict Results.....47
Figure 4: Distribution of Responses 50
Figure 5: Indicator Loadings 54
Figure 6: Path Coefficients 58

LIST OF APPRIVIATIONS

NAQAA: National Accreditation and Quality Assurance Agency

UTG: University of the Gambia

AIUWA: American International University, West Africa

GTTI: Gambia Technical Training Institute

USET: University of Applied Science, Engineering and Technology

MDI: Management Development Institute

LB: Leaders' Behavior

RTC: Response to Change

DRTC: Dispositional Resistance to Change

CE: Change Effectiveness

A: Affective

B: Behavioral

C: Cognitive

CI: Change Information

CS: Change Support

CP: Change Participation

CR: Cognitive Rigidity

RS: Routine Seeking

ER: Emotional Reaction

STT: Short Term Thinking

PLS-SEM: Partial Least Square Structural Equation Modelling

INTRODUCTION

"Change is the only constant thing in life." This is a very famous saying, and it is more relevant and applicable to today's business environment than ever before. As Kiefer (2005) nicely put it, change has increasingly become a part of organizational life. Businesses must adjust constantly to adapt to the ever-changing and volatile global environment. These changes are often implemented by leaders of the organization, thus dramatically shifting the traditional role of managers. Instead of focusing on balance, stability, and control, managers today, as leaders of organizations, are required to respond quickly to changing circumstances by actively looking for new opportunities and leading their followers to seize them. Ultimately, leaders must constantly examine how things could be done better, get their employees to share their change goals, and collaborate with them to reach those objectives (Paglis & Green, 2002).

The concepts of leadership and organizational change have long been intertwined and have usually been explored together. Although we know a lot about both concepts independently, we know relatively little about the integration of the two. The impact of leadership on organizations during times of change is extensively studied, and the literature on organizational change frequently highlights the roles of managers and change agents as change leaders (Oreg & Berson, 2019). In fact, Bass (2008) and Zaleznik (1977) argued that it is impossible to talk about leadership without mentioning, at least implicitly, a change process. Yet, surprisingly, after a deep review of the literature, Oreg and Berson (2019) noted that no systematic research has been conducted on the relationship between leadership and change. Therefore, they did just that, identified several gaps in the literature, and gave suggestions on the direction of future studies. This study set out to fill some of the gaps they identified.

Recently, the impact of COVID-19 has forced Higher Educational Institutions in the Gambia to change how they conduct their lectures. Most lectures are now conducted online as opposed to the traditional ways of delivering lectures to students (i.e., on-campus or face-to-face). Therefore, the aim of this study, broadly speaking, is to determine the impact of Higher Educational Institution leaders' behavior on the successful implementation of this change in the Gambia. More specifically, the study aims to answer the following questions:

- How does leaders' behavior impact change-related organizational outcomes such as change effectiveness and organizational performance?
- What is the relationship between leaders' behavior and followers' response to change?
- What is the role of recipients' responses to change in mediating the effects leaders' behaviors have on the organization-level outcomes?
- What is the role of leaders' behavior in moderating the relationships between follower attributes and followers' reactions to change?

The unplanned and unpredictable nature of the Covid-19 pandemic has made the ever-changing business environment even more volatile. Organizations were forced to implement changes rapidly to survive. Remote work or home office work has become the new normal. Most Higher Educational Institutions, especially, were forced to move almost all lectures online in order to control the spread of the virus, and Gambia is no exception. Prior to the COVID-19 pandemic, almost all lectures offered by Higher Educational Institutions in the Gambia were face-to-face on-campus lectures except for only two universities – International Open University and Euclid Online University – that started and still offer mainly online lectures (distance learning). It is worth noting that the cost of internet in the Gambia is very high. For instance, installing WIFI at one's home will cost almost at least 400 TL per month. Something that costs less than 100 TL in Turkey. In addition to that, the speed and quality of the internet connection are very poor. Also, several students do not have access to the required tools (e.g., laptops) to be able to adequately attend online classes. Moreover, most of the lecturers in the Gambia are unfamiliar with the online platforms needed to administer online lectures. Thus, training them to bring them up to speed as quickly as possible is required to enable them to effectively offer lectures remotely. Given all the aforementioned limitations, the administrations (leaders) of the Higher Educational Institutions went ahead and implemented the necessary changes to keep them functioning through the pandemic. Yet we believe that this was all done without them relying on any empirical guide in the Gambian context because, to our knowledge and based on our literature review, we could not find any empirical research on leadership and change of any kind in the Gambia. This shows that there is a huge gap in the literature that this study has set out to fill. Furthermore, since change

has increasingly become a part of organizational life (Kiefer, 2005) and its success mainly depends on the leaders of the organization, the findings and recommendations of this study will help administrators of Higher Educational Institutions to effectively initiate and implement future changes.

This study is divided into five main chapters, each of which is extensively discussed. Chapter One, which covers the introduction, has already been addressed. The rest of the study is organized as follows: Chapter two provides reviews of the existing literature on leadership and the relevant leadership styles or behaviors, as well as on change and resistance to change theories. It also provides discussions on the conceptual model and the development of hypotheses. Chapter three provides a detailed explanation of the research methodology. More precisely, the research design, data collection process, measures used, population and sample, time horizon, data analysis methods, and ethical considerations. Chapter four presents the findings and discussions of these findings. Chapter five concludes the study, provides both theoretical and practical implications for policymakers, and outlines the limitations and directions for future research.

1. LITERATURE REVIEW

1.1. Leadership

Like many social sciences concepts, there is no universally accepted definition of leadership. There are hundreds of different definitions of leadership (Rost, 1991). In fact, Bass (2007, as cited in Palmer, 2009) notes that there are about as many diverse definitions of leadership as there are people who have tried to define it. So, coming up with a precise definition of leadership is not within the scope of this study. However, among the numerous diverse definitions that have been presented, common themes may be found. Leadership is primarily a process of social influence that aims to achieve a common goal (Paglis & Green, 2002). Leadership constructs in the literature typically relate to stable characteristics of leaders, such as their personalities or demographic characteristics, as well as their actions, which reflect their leadership behavior. These behaviors pertain to the different types of leadership styles that have been studied (e.g., transformational, supportive, participative leadership styles, etc.) and the concept of sensegiving, which is about how leaders help their followers make sense of the realities of their organizations (Oreg & Berson, 2019). For this study, we will use leadership behaviors that are either inherently related to change or have been studied in change contexts to measure the impact of leaders' behavior on organizational change outcomes.

Transformational leadership theory is the most relevant theory extensively studied in change management literature (Oreg & Berson, 2019). In fact, Bommer et al. (2005, p. 734) argued that "transformational leadership has been explicitly defined around the concept of change," and other researchers contend that transformational leadership and change are inseparably linked (Litz & Blaik-Hourani, 2020). Podsakoff et al. (1990) also articulated that the diverse concepts of transformational leadership converge on the notion that successful leaders influence or alter their followers' fundamental values, beliefs, and attitudes. Essentially, transformational leadership enhances individual employees' receptiveness and capacity to facilitate organizational change. Therefore, it is challenging to avoid transformational leadership theory altogether when studying leadership in the context of change, as most of the leadership theories – such as trait, behavioral, contingency, situational, path-goal, leader-member exchange, authentic, visionary, supportive, and servant leadership – that are either

part of the larger framework of transformational leadership or conceptually similar to transformational leadership (Oreg & Berson, 2011).

1.1.1. Transformational Leadership

Earlier leadership researchers sought to create descriptive theories to explain leaders' behaviors. For instance, researchers at Ohio State University and the University of Michigan focused on identifying two key leadership roles—task-oriented and relationship-oriented—while describing how leaders function within these categories. In contrast, transformational leadership represents a normative theory, emphasizing how leaders should behave. Johnson (2018) argued that normative leadership theories are "explicitly built on moral principles or norms and provide guidelines for promoting ethical leader behavior" (p. 244).

Burns (1978) described transformational leadership as a process where both leaders and followers elevate each other's morality and motivation. Unlike transactional leadership, which operates on a give-and-take dynamic, addressing followers' basic needs like food, shelter, and acceptance, transformational leadership focuses on fulfilling higher-level needs such as esteem, competence, self-fulfillment, and self-actualization (Avolio & Bass, 2002; Johnson, 2018; Kirimi & Barine, 2010). Burns (1978) distinguished leadership as either transactional or transformational. While transactional leaders provide or withhold rewards based on productivity, transformational leaders inspire and motivate followers, enabling both parties to achieve exceptional outcomes (Bass & Bass, 2008; Hickman, 2016).

Bass (1985) expanded on transformational leadership theory, offering a more comprehensive and sophisticated version that built upon, but did not fully align with, earlier leadership theories (Bass & Bass, 2008; Northouse, 2019). Unlike previous scholars such as House (1976) and Burns (1978), who focused more on leaders, Bass (1985) emphasized the importance of empowering followers. He argued that transactional and transformational leadership are not distinct entities but exist along a single continuum (Bass & Riggio, 2006). While Burns viewed transactional and transformational leadership as separate and independent, Bass (1985) introduced the concept of full-range transformational leadership, which integrates both leadership styles on a continuum. This work marked the development

of a comprehensive transformational leadership theory (Bass, 1985; Avolio & Bass, 2002; Northouse, 2019).

Transformational leadership involves leaders morally uplifting their followers and training them to become future leaders. It centers on inspiring and empowering followers to foster positive changes within themselves, their organizations, and society (Bass & Bass, 2008; Bass & Riggio, 2006; Northouse, 2019). Because transformational leadership encompasses many elements of other leadership theories—such as trait, behavioral, contingency, situational, path-goal, leader-member exchange, authentic, and servant leadership—it is widely applicable across various contexts, organizations, and cultures. As a result, it is often regarded as one of the most effective leadership approaches in implementing organizational change (Asencio, 2016; Barnett, 2017; Bass & Bass, 2008; Dugan, 2017; Northouse, 2019).

The idealized aspect of transformational leadership is also referred to as charismatic leadership (Bass & Bass, 2008). Idealized influence involves actions that inspire followers to take pride in being connected to the leader and is often linked to charisma. Leaders with idealized influence are described as charismatic because they have a significant impact on their followers, fostering trust in the leader's values, unquestioning loyalty, identification with the leader, emotional engagement in the mission, elevated aspirations, self-belief, and group efficacy (Bass & Bass, 2008, p. 575). This dimension of transformational leadership suggests that the leader prioritizes collective well-being over personal interest and makes sacrifices for the benefit of others. Leaders exhibiting this behavior demonstrate confidence, strength, and the ability to encourage others to overcome challenges (Bass & Reggio, 2006). They also demonstrate enthusiasm while leading others by serving as a positive role model (Aboramadan & Kundi, 2020).

Inspirational motivation refers to a leader's capacity to inspire confidence, motivate followers, and instill a sense of purpose. The leader effectively communicates a clear vision, sets expectations, and demonstrates dedication to achieving organizational goals (Avolio & Bass, 2002; Azanza et al., 2013; Kirimi & Barine, 2010). A transformational leader exhibiting this behavior motivates followers by offering meaningful, challenging work and fostering team spirit, enthusiasm, and optimism (Bass & Riggio, 2006). The leader engages

followers in envisioning a compelling future while clearly communicating expectations and showing commitment to the shared vision and goals (Bass, 1985; Avolio & Bass, 2002; Northouse, 2019).

Intellectual stimulation involves a leader's capacity to encourage followers to be innovative and creative by challenging assumptions, redefining problems, and using new perspectives to tackle old situations (Bass & Riggio, 2006). When leaders foster intellectual engagement among their followers, they do not publicly criticize mistakes; instead, they allow for trial and error if the efforts align with the organization's goals (Bass & Bass, 2008; Northouse, 2019). Transformational leaders who use intellectual stimulation advocate for risk-taking and value the input of their followers (Dogan & Yildiz, 2023). They create a supportive atmosphere that allows followers to explore ideas and collaborate. By engaging with followers, transformational leaders help develop ideas and consider various possibilities. Their motivation lies in providing growth opportunities for others (Proffitt, 2024).

Individualized consideration refers to a leader's capacity to serve as a coach or mentor (Hickman, 2016). The leader fosters a supportive environment that provides learning opportunities, considering individuals' unique needs and desires (e.g., some may require more encouragement, others may seek greater autonomy, while some might prefer clear guidelines or more structure) (Northouse, 2019). The leader delegates responsibilities to help followers develop into future leaders while monitoring these tasks to determine if the follower requires further guidance or support (Avolio & Bass, 2002; Hickman, 2016; Kirim & Barine, 2010). In short, individual consideration involves leaders taking on the roles of teacher or coach, providing personal care, support, and encouragement to their followers (Mitchell, 2024).

Transformational leadership is regarded as a universally practical approach to managing organizational change (Sharma & Krishnan, 2012). It emphasizes developing the potential of followers and transforming their mindsets to encourage participation in the change process (Rubin et al., 2009). In essence, a transformational leader can accelerate organizational change by positively impacting employee attitudes and enhancing work engagement levels (Kumar-Basu, 2015). As highlighted before, since transformational leadership encompasses

many elements of other leadership theories — such as trait, behavioral, contingency, situational, path-goal, leader-member exchange, authentic, and servant leadership — it is widely applicable across various contexts, organizations, and cultures. As a result, it is often regarded as one of the most effective leadership approaches in implementing organizational change (Asencio, 2016; Barnett, 2017; Bass & Bass, 2008; Dugan, 2017; Northouse, 2019; Bagga et al., 2023).

1.1.2. Change Related Leader Behaviors

It is imperative to emphasize that although transformational leadership is frequently studied in the context of organizational change in the literature, it is a broad leadership concept consisting of several unique components combined to form a single leadership construct (Van Knippenberg & Sitkin, 2013; Oreg & Berson, 2019). Thus, like other broad leadership theories studied in the context of change, it is difficult to distinguish among the relevant leaders' behaviors embedded in the broad transformational leadership concept, which are key to facilitating effective change implementation. Therefore, Oreg and Berson (2019) identified and "singled out" three key leadership styles or functions as "particularly important in the context of leading change." These are 1) effective communication, 2) being supportive and attentive to recipients' concerns, and 3) "involving followers." These three leadership behaviors, which are the premises for this study, are components of visionary leadership, supportive leadership, and participative leadership, respectively, and they are explained in detail below.

1.1.2.1. Visionary Leadership

The notion of vision emerged in the 1980s as a leadership concept in response to companies' need to quickly adjust to technological advancements and both local and international competition (Conger, 2000). Bennis and Nanus (1985) were the pioneers in doing a comprehensive analysis of visionary leadership, although they did not explicitly use this word in their initial research. Bennis (1989; 1997) conducted more research on this topic, but Nanus (1992) is the sole author who has exclusively explored the concept of visionary leadership in depth.

Nanus defines vision, a “central element” of leadership, as a “realistic, credible, attractive future” for an organization or group of people (p. 8). Visionary leadership commences with a clear vision and encompasses the action of harmonizing "form and function" as well as "process and purpose" in order to execute this goal (Nanus, 1992, p. 15). Nanus says that a visionary leader must fulfill four fundamental functions (p. 12-15):

1. **Direction Setter** – “Establish a vision and course” for the organization
2. **Change agent** – Evaluate the external environment of the organization to establish a compelling need for changes in the internal environment.
3. **Spokesperson** – Employ a wide range of communication abilities to effectively express the vision to different groups of people.
4. **Coach** - Assemble a group of empowered individuals to execute the vision and act as a role model for others in the organization.

According to Nanus, a vision and the practice of visionary leadership is a transformative effort that can create a sense of purpose in workers’ lives. Nanus asserts that a leader's vision results from a combination of foresight, insight, imagination, judgment, and, often, a significant amount of boldness or audacity.

While Nanus' work shares many similarities, Marshall Sashkin's research on visionary leadership provides a more solid empirical basis for understanding the origins of vision and the process by which leaders cultivate a vision. In his work, Sashkin (1988) defines leadership as the act of formulating a vision tailored to suit and shape the conditions and needs of an organization. Sashkin (1986) thoroughly investigates visionary leadership by analyzing the leader, the situation, and the leader's behavior and defines visionary leadership as the ability of a leader to create long-term visions for their organization, comprehend the essential components of a vision, and effectively persuasively communicates his or her visions.

Sashkin (1986) also asserts that to develop a vision or engage in envisioning, a leader must employ four cognitive skills. Firstly, a leader must possess the ability to articulate the vision through actions that promote the concept, such as coordinating meetings, formulating policies, or reorganizing duties. Additionally, the leader must effectively communicate the

vision to other organization members, demonstrating proficiency in many communication methods. Furthermore, the leader expands the vision by employing a series of actions in diverse circumstances, allowing the vision to be executed in multiple ways and places. Finally, the leader enhances the vision by implementing it in many ways across the entire organization.

Effective communication is an essential element of visionary leadership theory. It refers to the act of precisely and effectively establishing, expressing, and communicating a vision for others to follow (Sashkin, 1992). This technique of communication facilitates the transformation of an individual's vision into a vision that is collectively shared. Effective communication is essential to articulating a vision and inspiring people to embrace the vision and collaborate toward a common future objective (Taylor et al., 2014). “Communication of the vision is what empowers people to act. When people do not act, it tends to be because the vision has not been clearly communicated; people spend their time trying to figure out what direction to go, which makes them tired and unresponsive” (Taylor et al., 2014, p. 567)

Yokl (2012) asserts that leaders may foster commitment to new strategies and projects by clearly and persuasively communicating a compelling picture of the potential achievements that the work unit or organization can realize. A vision becomes more captivating and compelling when it aligns with the values, ideals, and needs of followers and is conveyed using vibrant and emotive language. According to Nadler (1988), an audacious and groundbreaking vision often carries a certain level of risk. However, the likelihood of team or organization members embracing this vision increases if the leader can instill confidence in their ability to achieve success.

Successful implementation of organizational change is highly dependent on effective communication (Lewis & Seibold, 1998; Schweiger & Denisi, 1991). In fact, Lewis and Seibold (1998) conceptualized “change implementation as primarily a communication issue.” They argue that “Communication processes are inherently a part of these implementation activities, including announcement of change programs, training of users, and users’ interaction and feedback regarding change programs, to name only a few” (p. 96). Inadequate implementation of change communication leads to the proliferation of rumors,

which frequently amplify the adverse elements of the change (DiFonzo, et al., 1994; Smeltzer & Zener, 1992) and foster resistance to the change. Without timely communication, employees might learn about the change through external sources like the news media (Bastien, 1987; Richardson & Denton, 1996; Smeltzer, 1991). Studies such as those by Hargie and Tourish (2000) and Larkin and Larkin (1994) suggest that employees prefer receiving information from their direct supervisors and others within the organizational structure rather than outside channels. Disregarding such preferences creates uncertainty, which in turn generates sentiments of dissatisfaction and distrust towards the management (DiFonzo & Bordia, 1998). Effective communication is crucial for organizations to navigate employee uncertainty, job satisfaction, and retention during and after changes like mergers or downsizing (Bastien, 1987; Johnson et al., 1996).

The quantity and caliber of information provided might also impact the response of organizational members to change. It has been proposed by Coch and French (1948) and Kotter and Schlesinger (1979) that sharing information with employees to improve their involvement in organizational decision-making can influence their resistance to change (e.g., Coch & French, 1948; Kotter & Schlesinger, 1979). Previous studies have found that providing extensive and comprehensive information about a change can effectively decrease resistance to change (Miller et al., 1994; Wanberg & Banas, 2000). Specifically, employees who reported obtaining prompt, informative, and valuable information regarding an organizational change displayed a more favorable assessment of the change and a greater inclination to collaborate with it (Wanberg & Banas, 2000). Another reason is the impact of communication on the level of uncertainty experienced by change recipients, as well as their level of trust in the change agents (e.g., Ashford, 1988; Bordia et al., 2004; Schweiger & Denisi, 1991). A study conducted by Axtell et al. (2002) examined the impact of both information and hands-on experience with new technology on reducing uncertainty and resistance inside a company. The study was conducted in a prominent distribution company in the UK, where new technology was being implemented to automate the sorting of supplies based on postal areas. As anticipated, increased exposure to the new system is linked to enhanced well-being and better willingness among the system operators to accept the new system.

Waldman et al. (2001) also argued that visionary leaders utilize effective communication to change the attitudes and outputs of their subordinates, resulting in organizational transformations and change. In any change process, employees often exhibit resistance. In such circumstances, a leader assumes a crucial role by motivating and persuading followers to embrace change and work towards reaching shared objectives through effective communication and innovation (Rasool, 2016). In a study conducted by Talbot (2010), visionary leaders in a Catholic school system were found to have successfully guided the organization through a major change by employing effective communication and organizational storytelling.

1.1.2.2. Supportive Leadership

Supportive leader behaviors have long been a topic of interest to management scholars, both in terms of their resemblance to other leadership concepts and their integration into leadership theories. Supportive leadership can be understood in various theoretical frameworks. For instance, supportive leadership aligns with the consideration dimension of the Ohio State Leadership Studies from the 1950s (Northouse, 2016). Secondly, it is discussed in the path-goal theory proposed by House (1971). Thirdly, Bass (1985) incorporates it within the transformative leadership theory. Finally, it shares conceptual similarities with perceptions of supervisor support (PSS) (Kottke & Sharafinski, 1988). A comprehensive explanation of these situations is provided in the following paragraphs.

First, in the 1950s, the Ohio State Studies identified two primary leadership behaviors: consideration and initiating structure (Stogdill, 1974). The behaviors related to initiating structure primarily involve task behaviors, such as arranging work, establishing role responsibilities, providing structure to the work environment, and planning work schedules. On the other hand, consideration behaviors fundamentally revolve around building and maintaining positive relationships between leaders and followers, including fostering camaraderie, respect, trust, and affinity (Northouse, 2016). Recent meta-analytic research has compared the outcomes of two leadership orientations: consideration and initiating structure. The findings indicate that consideration is more closely linked to employee motivation, perceptions of leader effectiveness, and satisfaction with both the leader and the job. On the other hand, initiating structure is more strongly associated with the performance

of both the leader and the group. Based on these findings, the authors concluded that both consideration and initiating structure are crucial concepts to investigate in leadership studies (Judge et al., 2004). Supportive leadership is demonstrated when employees regard their immediate supervisors as providing both consideration and initiating structures to help them achieve work goals (Jones & Van de Ven, 2016).

After the initial Ohio State Leadership Studies, researchers identified four distinct categories of leader behaviors: directive, participative, achievement-oriented, and supportive, within the framework of the path-goal theory (House, 1971; House & Mitchell, 1974). Directive behaviors entail clearly communicating expectations to subordinates and clarifying policies, rules, and procedures. Participative behaviors involve actively involving subordinates in decision-making processes. Achievement-oriented behaviors promote high performance and build subordinates' self-confidence (House, 1971; House & Mitchell, 1974). Supportive leadership entails a leader showing care for the well-being of subordinates and fostering a work atmosphere that is both friendly and psychologically supportive. According to the path-goal theory, there are different ways leaders motivate and assist followers by providing a well-defined path to achieve goals, eliminating barriers, and enhancing rewards for reaching the desired outcome. A leader's behavior may vary depending on the situation, including the follower's ability and motivation, the complexity of the task, and other contextual factors (House, 1971). For example, path-goal theory suggests that in high-stress situations, supportive leadership can help reduce stress and anxiety among subordinates by improving leader-subordinate relationships and providing psychological support (House, 1971).

As a further development in the supportive leadership concept in management literature, scholars have proposed that the individualized consideration dimension of transformational leadership encompasses both supportive and developmental leadership (Yukl, 1999). Individualized consideration involves a leader paying attention to and addressing follower needs and concerns (reflecting supportive leadership), as well as serving as a mentor or coach (reflecting developmental leadership). However, it is important to note that supportive and developmental leadership have been distinguished empirically and related to different outcomes. Research conducted by Rafferty and Griffin (2006) has demonstrated that developmental leadership has been shown to have a stronger relationship with followers'

affective commitment and job satisfaction compared to supportive leadership. Empirical research also indicates that supportive leadership is not linked to motivation or performance – outcomes commonly associated with transformational leadership – but is positively related to employee job satisfaction and safety climate, among other factors (Mathieu, 1990; Neal & Griffin, 2002). Therefore, while supportive leadership may share conceptual similarity with individualized consideration, its unique contribution to management research is evident, as prior studies have demonstrated its discriminant validity.

Furthermore, supportive leadership is conceptually akin to perceived supervisor support (PSS), which refers to employees' perceptions that their supervisors value their contributions and are concerned about their well-being (Kottke & Sharafinski, 1988). Previous empirical research has found a positive relationship between PSS and organizational commitment, job satisfaction, and employee performance (Gagnon & Michael, 2004). Conversely, it has been negatively associated with employee turnover intentions (Ng & Sorensen, 2008) and executive illnesses (Kobasa & Pucetti, 1983). These findings illustrate the conceptual relationship between PSS and supportive leadership.

Additionally, the recently introduced model of compassionate leadership (Gilbert & Basran, 2019), which emphasizes caring and empathy, closely aligns with traditional definitions of supportive leadership because both empathy and care are key components of supportive leadership (Yukl, 2013). Supportive leadership can also be considered as part of the broader leadership model called “ethical and moral leadership,” which emphasizes how a leader demonstrates care, shows respect, and builds trust and confidence.

It could be concluded from this review that within the broad meta-categories of leadership styles, supportive leadership is primarily classified under relationship-oriented leadership (Yukl et al., 2002). However, supportive leadership is more often viewed as a type of leadership behavior (Yukl, 2013) rather than a distinct leadership theory or style, and that is why it is integrated into various models and types of leadership (Blomberg, 2022). Practically, Supportive leadership involves being friendly and approachable while focusing on the well-being and needs of followers. Leaders who practice supportive behaviors actively strive to create a good work environment for their followers. Furthermore, “supportive

leaders treat followers as equals and show respect for their status" (Northouse, 2016, p. 117). According to Yukl (2012), Supportive leadership entails demonstrating empathy towards the needs and emotions of individual team members, attentively listening to their concerns or distress, offering assistance and motivation during challenging or stressful assignments, and expressing confidence in their ability to accomplish difficult tasks. Additionally, it encompasses the promotion of collaboration and the fostering of mutual confidence, as well as the resolution of problems among subordinates. Overall, supportive leadership entails "consideration, acceptance, and concern for the needs and feelings of other pe," and such leadership behaviors foster and maintain "effective interpersonal relationships" (Yukl, 2013, p. 77).

These aspects of leadership are crucial for employees during organizational change. The uncertainty and potential risks associated with change can cause employees to fear unexpected negative outcomes and resist the changes (Staw et al., 1981). Supportive leadership can reduce these fears and make people feel valued in the change process (Coyle-Shapiro & Marrow, 2003; Martin, et al., 2005; Rafferty & Griffin, 2006). Supporting this view, Oreg et al. (2011) found a strong correlation between supportive leadership and perceptions of change in their extensive review of literature on response to change.

1.1.2.3. Participative Leadership

When the term "participation" is italicized, it specifically denotes involvement in the decision-making process. Various forms of participative leaders exist, and they can encourage followers to actively and attentively express their thoughts and obtain approval by involving colleagues in the process of planning or decision-making (Berlew & Heller, 1983). Participation can be defined as a specific method of leader-subordinate decision-making where the leader balances power and collaborates with subordinates in making the final decisions. Participation involves the active involvement of followers, giving them the opportunity to express their opinions and have influence in discussions (Wright, et al., 2003).

The participative leadership concept was first introduced by an American scholar, Likert (1961), in his book "New Patterns of Management" based on his extensive experimental research on democratic leadership. He identified three main principles of participative

leadership theory: the group decision principle, the mutual support principle, and the high standards principle. It has garnered significant interest from numerous studies since its introduction. Participative leadership is a leadership style where the leader encourages and enables group members to actively engage in conversations, problem-solving, and decision-making processes. It signifies a greater level of independence for subordinates, the distribution of power, the exchange of information, and the implementation of fair procedures (Lawler, 1986). Participative leadership was redefined by Kahai et al. (1997) as a leadership style where leaders actively seek input from employees, delegate decision-making authority to subordinates, and encourage employees to participate actively in decision-making. This leadership style has two main features: involving employees in the decision-making process and consulting them to collectively solve problems and providing employees with resources to facilitate their work (Kahai et al., 1997; Lam et al., 2015; Li et al., 2018).

According to Roberts and Thorsheim (1987), participative leaders openly express their worries, fears, and uncertainties. They also articulate their problem-solving methods, ask followers questions and attentively listen to their responses. Additionally, participative leaders reflect on their own emotions, restate and summarize information, thank contributions, and incorporate followers' suggestions. Participative leaders employ group procedures to foster follower engagement, responsibility, active participation, agreement, mutual assistance, collaborative mindset, and independent and well-informed decision-making. These leaders strive to prevent the exercise of one-sided control, concealed motives, and suppression of the expression of emotions and relevant information. In addition, as stated by West (1990), leaders ensure the safety of their followers by establishing a non-threatening atmosphere where participants can actively engage in decision-making processes that impact them. However, the ability to freely and safely engage in activities does not imply unrestricted permission. Participative decision-making involves the leader actively participating as an equal member. The perception of safety in expressing one's opinions relies not only on one's direct superior but also on higher-ranking senior executives within the organizational hierarchy (Detert, 2003).

Participative leadership is characterized by leaders and subordinates engaging in decision-making on an equal footing, with mutual trust, and resolving organizational issues through

democratic consultation. Although it involves a diverse group of employees in the decision-making process, leaders ultimately make the final decision. Huang et al. (2010) argued that participative leadership requires leaders to actively encourage and support employee involvement in decision-making, as well as to share information and ideas. This perspective is supported by scholars such as Xiang and Long (2013), Lam et al. (2015), and Li et al. (2018). The core of participative leadership is to enhance employee involvement in organizational decisions, with the critical aspect being the engagement of employees before final decisions are made (Benoliel & Somech, 2014). Therefore, drawing from extensive prior research and real-world experience, participative leadership is regarded as a set of leadership behaviors that encourage employee involvement in decision making and empower subordinates by providing them with autonomy, sharing relevant information, and providing additional resources, support, and motivation. This approach ensures that employees are consulted adequately before decisions are made and can collaboratively address work-related challenges (Huang et al., 2010; Chan, 2019).

Various studies have shown that the level of resistance to change is negatively correlated with the extent to which individuals affected by the change are given the chance to offer their input on the change. Coch and French (1948) conducted a pioneering organizational study that examined resistance to change. They conducted a field experiment to investigate the effect of employee participation in reducing resistance to change. Their research was carried out at the Harwood Manufacturing Corporation, where seamstresses manufactured pyjamas. Periodically, seamstresses have to adjust to advancements in technology or changes in the nature of their duties. After implementing these changes, the company's management noticed significant declines in the performance and attitude of the seamstresses. The consultants, who were researchers employed by the company, conducted a study to investigate if involving seamstresses in the decision-making process would affect their overall acceptance of the changes.

The control group underwent the company's regular procedures, which involved informing employees about the necessity of making changes to their jobs. In contrast, the experimental groups were provided with different levels of involvement in the design of the changes.

Representatives from certain groups contributed their insights regarding the planned changes and actively engaged in the final job design process. All members in other groups actively contributed to the planning and creation of their new positions. Consistent with expectations, Coch and French discovered that when employee participation rose, there was a corresponding improvement in their acceptance of the change and their subsequent performance. Despite some criticism regarding their methodology, specifically the potential confounding effect of their manipulation of participation (Bartlem & Locke, 1981), Coch and French's study is widely recognized as a significant milestone in establishing the connection between participation and reduced resistance to change.

Following their influential work, numerous other studies have corroborated the impact of participation on resistance to change (e.g., Amiot et al., 2006; Coyle-Shapiro, 2002; Holt et al. 2007; Steel & Lloyd, 1988). Several research suggest that participation reduces resistance by positively influencing employees' view of their ability to handle the change (Amiot et al., 2006).

Overall, the existing research confirms that participative leadership is more effective than directive leadership in fostering decision acceptance and agreement. According to R. Likert (1961a, 1961b), when participative leadership is implemented in a group, every member has the chance to get acknowledgement and develop a feeling of personal value. This form of leadership also establishes an environment where each subordinate can witness the sentiments of every other member of the group regarding a certain issue. These situations reduce an individual's resistance to recommendations and changes in their viewpoint. Bennett (1955) found that students were significantly more inclined to participate as experimental subjects when they believed that nearly all their classmates had volunteered. The presence of a nearly unanimous agreement and the chance to participate in public decision-making had a greater impact on increasing volunteering compared to the possibility of discussion. Pennington et al. (1958) conducted a controlled experiment to determine the impact of different methods on followers' acceptance and change. They found that the highest levels of acceptance and change occurred when both discussion and group decision-making were allowed. In contrast, lower levels were observed when only group discussion or

announcements of group opinion were permitted. The lowest levels were observed when only secret balloting was used.

In a groundbreaking experiment, "participatory leaders" were given instructions to primarily restrain impulsive actions and prevent one member from dominating the group. Preston and Heintz (1949) compared them to "supervisory leaders," who were given instructions to ensure the group stayed focused on the work. The increased shared engagement under participatory leaders led to a greater consensus among members compared to those who had limited opportunities for interaction. The latter group was more prone to coercion, as they exhibited lower levels of private acceptance compared to public acceptance of judgments. Pennington et al. (1958) discovered that groups led by participative leaders achieved higher levels of cohesiveness and opinion shifts compared to groups that were not allowed to talk and make decisions. Bovard (1951a, 1951b) noted that teams focused on the group were more likely to adopt a shared group norm compared to teams focused on the leader. Hare's (1953) study discovered that both participatory and supervisory (directive) leadership styles had a notable impact on the level of agreement among group members. However, participative leaders exhibited a higher level of agreement with the group's ranks compared to directive leaders. In a study conducted by Levine and Butler (1952), it was discovered that participative leadership and group decisions were more effective in bringing about behavioral change compared to a lecture or control condition.

In a study conducted by Wilson (1968), it was found that convicts demonstrate a more effective ability to adjust to prison life when subjected to participative management as opposed to bureaucratic administration. A study conducted by French et al. (1966) showed that when lower-level managers participated in an appraisal system, it helped them accept the goals, increased group cohesiveness, and led to positive views toward the appraisal procedures. Jacobson et al. (1951) demonstrated that workers who participated in decision-making processes led by their foremen but not by their shop stewards tended to align with the values and objectives of management. Conversely, workers who engaged in decision-making processes led by their stewards but not by their foremen tended to align with the goals and standards of the union.

Lewin (1947) demonstrated how participative leadership can be used to alter the meat-buying habits of women during World War II, shifting their preferences from steaks and chops to kidneys and liver. This approach proved effective in overcoming opposition to change. According to Salancik (1977), the level of commitment of organizational members to a change effort is directly proportional to their level of participation. Consequently, the likelihood of them making behavioral adjustments that align with the desired results of the initiative increases. The presence of behavioral changes that align with a change initiative is highly probable due to the increased understanding that individuals involved in the initiative possess regarding its expectations (Miller & Monge, 1986). Individuals who actively participate in a specific change endeavor have a better understanding of it compared to those who only learn about it indirectly (Pasmore & Fagans, 1992). Participation continues to be an essential strategy for individuals dealing with resistance to change (Lawler, 1986).

1.2. Organizational Change

Zorn et al. (1999) define change as referring "to any alteration or modification of organizational structures or processes" (p. 10). An organization's ability to compete short-term and long-term depends on its ability to change, but it can also pose daunting managerial challenges (Lüscher & Lewis, 2008). Oreg and Berson (2019) indicate that overall, there are two main streams of research into organizational change. The first is concerned with the processes that lead to organizational change and the outcomes of that change. Outcomes here refer to both change outcomes and organizational outcomes that result from change. The second stream mainly focuses on the impact of organizational change on change recipients. In other words, how change recipients respond to change. For the purpose of this study, we focus on both streams by examining the impact of leaders' behavior on change-related organizational outcomes, as well as on recipients' responses to change. It is worth noting that the success of any change initiative largely depends on how employees respond to that change. If they respond positively, the change is likely to succeed. On the other hand, the failure of many change initiatives is due to followers' resistance to that change effort (Bateh et al, 2013; Maurer, 1996; Waddell & Sohal, 1998). As a result, it is argued that change agents must foresee and overcome followers' resistance if they are to succeed in implementing change (Bateh et al, 2013; Kreitner, 1992; Palmer, 2004). It is, therefore,

imperative to understand why employees resist change. To explain employees' resistance to change, Burnes (2017) identified four resistance to change theories in the literature: cognitive dissonance, the depth of intervention, the psychological contract, and dispositional resistance.

1.2.1. Cognitive Dissonance

This theory posits that individuals seek consistency in their beliefs and actions, experiencing dissonance when they perceive a conflict between multiple attitudes or between their attitudes and behavior. This dissonance leads to frustration and discomfort, which can sometimes be very intense. (Jones, 1990, as cited in Burnes, 2017). To lessen or alleviate the intense stress caused by high levels of dissonance, individuals will attempt to restore equilibrium between their attitudes and behaviors by modifying the intensity of the driving or restraining forces. Complete avoidance of dissonance is unlikely, but when the factors contributing to the dissonance are relatively insignificant, there will likely be little need to rectify them. However, if the issues involved are perceived as significant by the individual, the person will be motivated to actively reduce such dissonance and achieve consonance by modifying either their attitudes or behavior to align them with each other (Robbins, 1986; Smith et al, 1982). It can be concluded that an organization will face resistance if it initiates change that significantly contradicts the attitudes of the individuals involved and/or the organization's own values, beliefs, and practices. Conversely, where the suggested changes cause little dissonance, there won't be much attitude change, and thus, there will be little chance of resistance. Hence, aligning the level and nature of involvement with the degree of dissonance that potential changes might cause is crucial. This demonstrates that people's acceptance of or resistance to change depends greatly on the way that change is managed (Burnes, 2017).

1.2.2. The Depth of Intervention

According to Huse (1980), change initiatives are classified along a continuum from the "shallow level" to the "deepest level" based on their psychological "depth" or effect on the individuals involved. Huse argued that as the intervention becomes deeper, its impact on an

individual's psychological composition, values, and personality increases. Consequently, a more extensive level of participation becomes crucial for accomplishing successful behavior change. Huse asserted that in order to mitigate resistance, it is essential to connect the participation level with the types of proposed changes and their psychological impact. This seems to explain why participation is necessary in some situations but not in others, especially when the psychological impact is shallow (Burnes, 2017). This explanation is in line with the findings of Oreg et al (2011) that typically, change recipients who are extensively involved in the change process generally expressed greater preparedness and acceptance of the change, perceived it as less stressful, and displayed overall support for the change.

1.2.3. The Psychological Contract

The psychological contract, a widely recognized and influential idea, offers another perspective on how employees react to change. The phrase was initially used by Argyris in 1960. However, it wasn't until the 1980s and 1990s that it really started to gain substantial recognition, largely due to the work of Rousseau (1989, 1995). The fundamental premise of psychological contract theory revolves around understanding the beliefs that employees and their organization hold about their mutual relationships, which help facilitate successful exchanges (Cropanzano et al., 2017; Golden & Veiga, 2018; Thacker, 2015; Wayne et al., 1997). Blau's (1964) social exchange theory heavily shapes psychological contract theory, which explains the formation and maintenance of interpersonal relationships within organizations. This theory is commonly applied to understand workplace relationships.

The social exchange theory and psychological contract theory share two characteristics: exchange relationships and reciprocity, which substantiate the assertion that psychological contracts function as exchange frameworks (Coyle-Shapiro & Conway, 2005; Rousseau, 1995). Cropanzano et al. (2017) assert that effective exchanges occur when an organization exhibits care and concern for its employees, leading to employee loyalty and commitment, ultimately benefiting both parties. Additionally, reciprocity is crucial in explaining how employees assess the psychological contract and their attitudes and behaviors (Bordia et al., 2017; Doden et al., 2018; Ostroff & Bowen, 2016).

Most literature on psychological contract theory is generally based on one of two primary themes: content or evaluation. Content-based approaches to psychological contract theory encompass both transactional and relational elements, assessing the values of contractual terms, including promises and obligations. As a result, these approaches can be seen as quantifying the exchange inherent in the contract (Griep & Vantilborgh, 2018; Rousseau, 1995; Thomas et al., 2016). The distinction between transactional and relational contracts pertains to their scope: transactional contracts are specific and define interactions based on obligations and timelines, such as outlining concrete tasks and responsibilities. In contrast, relational contracts are more fluid and open-ended, often comprising implicit understandings rather than explicitly defined terms, which fosters a greater emotional connection (Millward & Hopkins, 1998).

The evolution-based approaches focus on employees' perceptions of the fulfillment, breach, and/or violation of the contract. Fulfillment of the psychological contract can be assessed by how fairly employees feel they have been treated (Conway & Briner, 2005). Breach refers to the gap between what the employee felt was promised and what the employer actually provided, whereas violation pertains to the adverse consequences resulting from this breach (Baruch & Rousseau, 2019).

It is important to note that, the psychological contract concept states that every individual working within an organization has an ongoing, unwritten set of expectations (Schein, 1988). On one side are the employees' expectations, which encompass things like working hours, pay, opportunities for advancement, training, etc. On the other side are the employer's expectations which encompass factors such as "work effort, commitment, loyalty, responsibility," etc. (Rousseau, 1989, 1995). There is relative stability when these two sets of expectations are aligned. However, if employers try to implement changes that disrupt this equilibrium, it can lead to resistance and conflicts (Burnes, 2017). Burnes further explains that if the organization deliberately or inadvertently alters or breaches any part of the contract without renegotiating the terms, it essentially creates a scenario where individuals face conflicting expectations from the organization. Nevertheless, people are less likely to resist the change if they can comprehend the reasons for adjusting the contract and if this leads to a new contract that aligns with the expectations placed on them (Burnes, 2017). This

emphasizes the importance of leadership in influencing how individuals respond to change. If the change information is effectively communicated to employees, they are less likely to resist the change.

1.2.4. Dispositional Resistance

Oreg (2003) introduced the concept of dispositional resistance to change, which shifts the focus from the broader organizational factors to the individual as the primary source of resistance. Oreg's research indicates that people differ in their mental disposition to either accept or resist change. As a result, people who are "[highly] dispositionally resistant to change" are less likely to intentionally initiate changes and more susceptible to developing negative attitudes towards the changes they encounter (Oreg et al, 2008, p. 936). Oreg's work disproves the idea that all people are inherently inclined to resist change. However, it does demonstrate that certain people with strong dispositional resistance are naturally inclined to oppose change. Oreg's findings also indicated that an individual's relationship with the change agent can moderate their response to change. People with a favorable perception of the change agent would be less inclined to resist the change irrespective of their dispositional resistance level (Oreg & Sverdlik, 2011). Similarly, Michel et al (2013) also suggest that change agents' roles and their management of change processes moderate dispositional resistance. This shows that the role of leadership is essential in determining whether people will accept or resist change.

Three key conclusions can be drawn from these four theories.

1. People do not all exhibit the same level of resistance to change. Rather, it depends on an individual's level of dispositional resistance. Change is more likely to be accepted by those with a low dispositional resistance level and rejected by those with a high level.
2. A person's dispositional resistance level is not necessarily predictive of the actual resistance level to a given change endeavor. The nature and context of the change will moderate it instead. For instance, even people with low dispositional resistance levels will likely oppose changes that "challenge deep-seated beliefs and values." On

the other hand, even people with high dispositional resistance levels will likely accept changes consistent with their values and beliefs (Burnes, 2017, p. 19).

3. The management of the change in terms of the change agent's leadership style and the followers' level of involvement in the change process can also influence the level of resistance to the change (Buchanan & Boddy, 1992; Burnes & Jackson, 2011; Hon et al., 2014). Employee involvement and a participative leadership style are typically seen as being necessary for successful change (Oreg et al., 2011). However, employee involvement and other approaches to change need to be tailored to the context of change rather than applied indiscriminately. To do so, leaders must comprehend the current situation and its preparedness for change (Burnes, 2017).

1.3. Conceptual Model and Hypotheses Development

Oreg and Berson (2019) did a study on leadership and change and based on their analysis of the literature, they proposed a model that can be useful for future research on the topic. However, their model is a huge model that will be almost impossible to be completely tested in one study. Thus, we modified the model to achieve the objectives of the present study. The various model paths are described in Figure 1. We begin by explaining the behavior of leaders and their influence on change-related organizational outcomes (path 1). We then look at the mediating role of followers' response to change on organizational outcomes (paths 2 – 3). Finally, we describe the moderating role of leaders' behavior on the relationship between followers' personal attributes and their response to change (path 4).

1.3.1. Leaders' Behaviors

According to Oreg and Berson (2019), more than fifty studies in the literature showed that leaders' behavior was associated with change effectiveness and recipients' response to change. The theories that underpin these studies rely on "concepts that focus on the change-related aspects of leaders' behavior." Theories such as "transformational leadership" (Bass, 1985), "issue selling" (Dutton et al., 2001), and, more specifically, "change-related leadership" (Brockner, et al., 1994) are mainly explored.

However, in their review and in the process of developing the model, they identified and "singled out" three key leadership styles or functions to be "particularly important in the context of leading change." These are 1) effective communication, 2) being supportive and attentive to recipients' concerns, and 3) "involving followers." These leadership style classifications correspond exactly to the essential elements of the change process, which are generally referred to as "change information," "change support," and "change participation" (Oreg, 2019). Therefore, for the purpose of this study, these three key leadership functions or styles will be used to conceptualize leaders' behaviors.

1.3.2. Leaders' Behavior and Change/Organizational Outcomes (Path 1)

Several studies have established the relationship between leaders' behavior and organizational or change-related outcomes. For instance, in a study of 38 top management teams (TMT) and their CEOs to determine whether CEO transformational leadership influences team performance and change effectiveness, Stoker et al. (2012) show that both TMT performance and organizational change effectiveness are positively related to transformational leadership. In another study, Beatty and Lee (1992) suggest that transformational leadership is more effective in implementing organizational change than transactional leadership. Waldman et al. (2001) also used data from 48 Fortune 500 companies; their results indicate a positive relationship between charismatic leadership and performance under conditions of uncertainty. Furthermore, Rubin et al. (2009) did a study on 106 manufacturing managers. The results revealed that transformational leaders demonstrate low levels of cynicism about organizational change, thus translating to higher performance and positively influencing their subordinates' attitudes. The results of Stefanie and Stefan (2018) also indicate that transformational leadership enhances employees' work engagement and their perception of positive outcomes from change, which in turn encourages behaviors that support change. In yet another study conducted by Bommer et al, (2023), the results show that transformational leadership has a significant influence on effective change management.

Other studies concentrate on task (results) oriented versus person-oriented leaders' behavior and change-related outcomes. Helmich (1975) collected data from 108 newly succeeded

manufacturing corporate presidents, and his result indicates that task-oriented leaders were more effective in implementing organizational change than person-oriented leaders. In a similar study, Battilana et al. (2010) examined the relationship between person-oriented or task-oriented leadership and the implementation of planned organizational change using data from 89 clinical managers at the UK National Health Service. Both person-oriented and task-oriented leadership competencies were crucial in the implementation of organizational change. While person-oriented leaders were more effective at communicating the need for change, task-oriented leaders were more effective at mobilizing and evaluating change implementation activities. Currie et al. (2009) also explored leadership in the context of institutional change in secondary school education in England. They specifically looked at how professional value-based leadership and results-oriented leadership can coexist, and their results indicate that the implementation of a modernization process would be more successful with a results-oriented style of leadership.

Other researchers focused on other types of leaders' behavior and roles in the successful implementation of change. Higgs and Rowland (2011) interviewed leaders from 33 organizations and found that "leader-centric (shaping) behavior" impedes change implementation. On the other hand, "facilitating" and "engaging" leader behaviors are positively linked to change success. In other words, leaders who display "facilitating" and "engaging" behaviors are more likely to succeed with change. Their results replicated the findings of their previous study (Higgs & Rowland, 2005). In another study, Dutton et al. (2001) conducted interviews with department directors and vice presidents of a hospital. They highlighted that the process of "issue-selling" was used by leaders to promote change by drawing the attention of members of the organization and shaping their understanding of major organizational events. Errida and Lotfi (2021) also did a comprehensive literature review of the factors that determine the success of organizational change and concluded that strong leadership, effective and constant communication, and employee involvement are essential for the effective implementation of organizational change.

It could be seen from the above review that most of the studies in the literature mainly use organizational performance or change effectiveness as their dependent variable and a measure of change or organizational outcomes. However, since our study will focus on

assessing the successful implementation of change in higher educational institutions in The Gambia, it will be difficult to measure the performance of those institutions, especially financially, since most of their funds come from students' tuition and research grants which are not affected by the Covid-19 pandemic. Student performance could have been used as a proxy to measure the performance of the institutions. However, that might also not be a good measure because all lectures and assessments were conducted online during the peak of COVID-19 – which is the focus of this study – and students could get assistance from friends or other people. Hence influencing students' performance. Moreover, we wish to assess the influence of leadership on change implemented in higher educational institutions across the Gambia in this study. Thus, change effectiveness is the most appropriate variable to be explored. Therefore, we will use change effectiveness as the dependent variable and a measure of change/organizational outcomes. Based on the above literature, the following hypothesis is drawn between leaders' behavior and change or organizational outcomes.

Hypothesis 1:

Leaders' behaviors, such as effective communication, being supportive and attentive to recipients' concerns, and involving followers, will positively influence change effectiveness.

1.3.3. Leaders' Behavior and Followers' Response to Change (Path 2).

The most frequently studied link in the leadership and change literature is the link between leaders' behavior and recipients' response to change (Oreg & Berson, 2019). The theoretical argument that "leaders promote change by engaging followers and shaping their emotional and attitudinal responses" is the basis for much of this research (Bartunek et al., 1999; Shamir et al., 1993, as cited in Oreg & Berson, 2019). Based on their review of the literature, Oreg and Berson (2019) separated recipients' responses to change into three categories: emotions, change attitudes, and behavioral consequences and outcomes. However, it is worth noting that these components are interrelated and overlapping. This is particularly demonstrated in the study conducted by Oreg (2006) on resistance to change, one of the variables captured under change attitude. He conceptualized resistance to change as a "tridimensional (negative) attitude towards change, which includes affective, behavioral, and cognitive components."

The affective component involves people's feelings about the change; the cognitive component considers people's perceptions of the change, and the behavioral component deals with people's actions and intentions toward the change. He argued that although the three components are not independent of one another, as people's feelings, thoughts, and behavioral intentions about the change are interlinked, they are "distinct of one another, and each highlights a different aspect of the resistance phenomenon." Since this conceptualization includes all three dimensions of followers' response to change, it is ideal for the present study to use it to capture the essence of recipients' response to change and avoid the issue of multicollinearity between two independent variables.

Several studies have been conducted on response to change. For instance, Oreg (2006) found a strong relationship between leaders' behavior and response to change. There was a strong correlation between followers' lack of confidence in the organization's leadership and an increase in anger, frustration, and anxiety about the organizational change, increased actions against it, and a negative evaluation of whether or not the organizational change was necessary and beneficial. In another study conducted by Agote et al. (2016) on Authentic leadership (AL) perception, trust in the leader, and followers' emotions in organizational change processes, they used structural equation modeling to analyze the experience of 102 human resource managers from Spain. They found a significant and positive relationship between AL perception and the experience of positive emotion. In addition, trust mediates the relationship between AL perception and negative emotions. AL behavior improves followers' trust in the leader, which subsequently removes negative emotions like anxiety and anger.

Huy (2002) also conducted a three-year inductive field study of a big company's attempt at radical change. The results suggested that the effective implementation of organizational change is facilitated when managers are emotionally committed to the change project and at the same time focus on their followers' emotions such that followers' anxiety and fear about the change are reduced. In other words, leaders need to manage both their emotions and the emotions of their followers to achieve emotional balancing and to successfully implement change, thus enabling their followers to smoothly incorporate the change project into operations and maintain continuity while learning from the change experience. In a similar

study, the results of Huy et al. (2014) suggest that effectively communicating the need for radical change and involving followers in defining the change content improves the followers' judgment about the legitimacy of their leaders to lead the change process and leads to a positive emotional reaction from the followers. This, in turn, improved their trust in their leaders, invigorated their supportive actions, and decreased their resistance to radical change. However, when leaders fail to keep their promises, followers change their legitimacy judgment and emotional reactions from positive emotional reactions to negative ones such as disappointment, anxiety, and frustration, thus leading to growing resistance to the change.

Using an experimental simulation study involving 263 German employees, Helpap (2016) assessed how change communication influences change commitment and followers' intention to resist change. The findings revealed that participatory communication positively influences change commitment more than programmatic communication. Thus, employees' resistance to change is lowered with better communication and involvement in the change process. In another study by Jones and Van de Ven (2016), supportive leadership significantly negatively influences resistance to change, and the effect becomes stronger over time. This shows that supportive leadership has a stronger capacity to reduce resistance to change as the change initiative progresses. In yet another non-experimental quantitative research approach, Onyeneke, and Abe (2021) utilized a self-administered survey questionnaire to assess how change leadership behaviors facilitate employee endorsement of proposed organizational change. Their results indicate that change leadership behaviors related to "visioning, communication, participation, support, and concern for change participants' interests" were found to be crucial "in ensuring employee buy-in and support for planned change efforts" (p. 403).

By conducting a meta-analysis to systematically organize and summarize the findings of previous research on leadership and followers' response to change, Peng et al (2021) found a strong negative relationship between transformational leadership and employees' resistance to change. Several other studies in the literature have theoretically proven that leadership style or leaders' behavior is vital in increasing positive reactions to organizational change (e.g. Albrecht et al., 2020; Bayraktar & Jiménez, 2020; Busari et al., 2019; Faupel, & Süß, 2019; Khan, et al., 2018; Peng, et al., 2020) This leads us to our second hypothesis:

Hypothesis 2:

Leaders' behaviors, such as effective communication, being supportive and attentive to recipients' concerns, and involving followers, will positively influence followers' response to change.

1.3.4. The Mediating Role of Followers' Resistance to Change (Paths 2 and 3).

The impact of leaders' behavior on change / organizational outcomes, such as performance or change effectiveness, is usually mediated by their change recipients' response to change (Oreg, 2019). In other words, the successful or effective implementation of change by leaders depends on their influence on their followers (i.e., how their followers respond to change). Several studies have manifested that in their findings. For instance, the results of Huy (2002) indicate that organizational change implementation is facilitated when leaders attend to their followers' emotions. Huy et al (2014) also noted that communicating well and involving followers in defining the change content enhances both their legitimacy judgment of their leaders and emotional reactions to change, which also strengthens the effective implementation of change. On the other hand, employees' legitimacy judgment of their leaders diminishes, and they display negative emotional reactions to change when their leaders fail to honor their promises. This leads to stiff resistance to change and, hence, the eventual failure of the change program. In another study, Bartunek (1984) proposes that the behaviors of organizational members and their emotional responses to change mediate leaders' influence on change. Correspondingly, Graebner (2004) suggested that for change to be successfully implemented, it is critical for leaders to effectively manage the emotions of their followers.

The results of Jones and Van de Ven (2016) also indicated that the relationship between supportive leadership and perceived organizational effectiveness was mediated by attitudinal resistance to change such that supportive leadership significantly impacts resistance to change, which in turn leads to improvements in organizational effectiveness. Similarly, the relationship between charismatic leadership and leadership effectiveness was found to be mediated by follower openness to change (Grove, 2005). Using multilevel structural equation

modeling, Nohe et al. (2013) also conducted a study involving 33 leaders and 142 followers to analyze the relationship between leaders' behavior, followers' commitment to change, and team performance. The results indicate that followers' commitment to change mediated the relationship between leaders' change-promoting behavior and team performance.

Khaw et al. (2023) systematically reviewed reactions toward organizational change. They concluded that leaders' role is crucial in successful change implementation since leaders can inspire employees, enhance motivation, and communicate the need for change while minimizing negative reactions. They also emphasize that effective leadership is critical in fostering a sense of empowerment among individuals, enabling them to adapt to or embrace the changes happening within the organization. Overall, these studies have shown that change recipients' responses to change mediate the relationship between leaders' behavior and change effectiveness.

Hypothesis 3:

Followers' response to change will mediate the relationship between leaders' behavior and change effectiveness.

1.3.5. The Moderating Effect of Leaders' Behaviors (Path 4)

In addition to having a direct impact on organizational outcomes and followers' responses to change, leadership may also interact with followers' personality traits in order to affect their responses to change (Oreg & Berson, 2011). Thus, we suggest that leaders' behavior may moderate the relationship between employees' personal attributes (dispositional resistance to change, to be specific) and responses to change (path 4). It has been shown in several studies that employees' personality traits are related to how they respond to change (e.g. Lau & Woodman, 1995; Oreg, 2003; Nov & Ye, 2008; Oreg, 2006). For instance, employees' locus of control was linked to their openness to organizational change (Lau & Woodman, 1995). Oreg (2003) also found a relationship between dispositional resistance to change and employees' willingness to accept a particular change. Furthermore, employees' attitude towards organizational restructuring was found to be linked to their dispositional resistance to change. In another study, the acceptance of a new technological advancement was

negatively correlated with dispositional resistance (Nov & Ye, 2008). Therefore, it is worth noting that individuals' resistance to specific changes is heavily influenced by personality in general and, in particular, dispositional resistance to change.

However, only a few studies have considered the moderating effect of leaders' behavior in the context of change. However, their results align with the suggestion that leaders' behavior may moderate the relationship between employees' personal attributes and their response to change. For instance, Oreg and Berson (2011) did a multilevel analysis of data from 75 school principals and 586 teachers. They found that the relationship between employees' dispositional resistance to change and resistance intentions is moderated by transformational leadership, making this link weaker as transformational leadership levels rise. Hon et al. (2014) also conducted a study entitled "Overcoming Resistance to Change and Enhancing Creative Performance'' by developing and testing a cross-level and "interactionalist" model of the relationship between dispositional resistance to change context and employee creativity. Their results indicated that the relationship between dispositional resistance to change and employees' creative performance is moderated by empowering leadership, such that the negative relationship is weaker under more empowering leaders. In yet another study, a longitudinal survey of 102 employees was used by Griffin et al. (2010) to examine how a leader's vision influences his or her followers' "change-oriented behaviors of adaptivity and proactivity in the workplace." Their results suggested that proactivity increased for people who were high in "role breadth self-efficacy," and adaptivity improved for those who were high in openness to work role change in the face of a clear and compelling vision from the leader. This implies that leaders' vision clearly moderates the relationship between the personal characteristics of followers and their change-related behaviors.

As can be seen above, even though there are very few studies that considered the moderating effect of leaders' behavior in the context of change, their results aligned with our suggestion that the influence of leaders' behavior on followers may extend beyond its direct influence on their reaction to change, as it may influence their response to change indirectly through its interaction with followers' personality traits or attributes.

Hypothesis 4:

Leaders' behavior will moderate the relationship between employees' dispositional resistance to change and their responses to change such that the relationship will be weaker in the face of positive leader behaviors such as effective communication, being supportive and attentive to recipients' concerns, and involving followers.

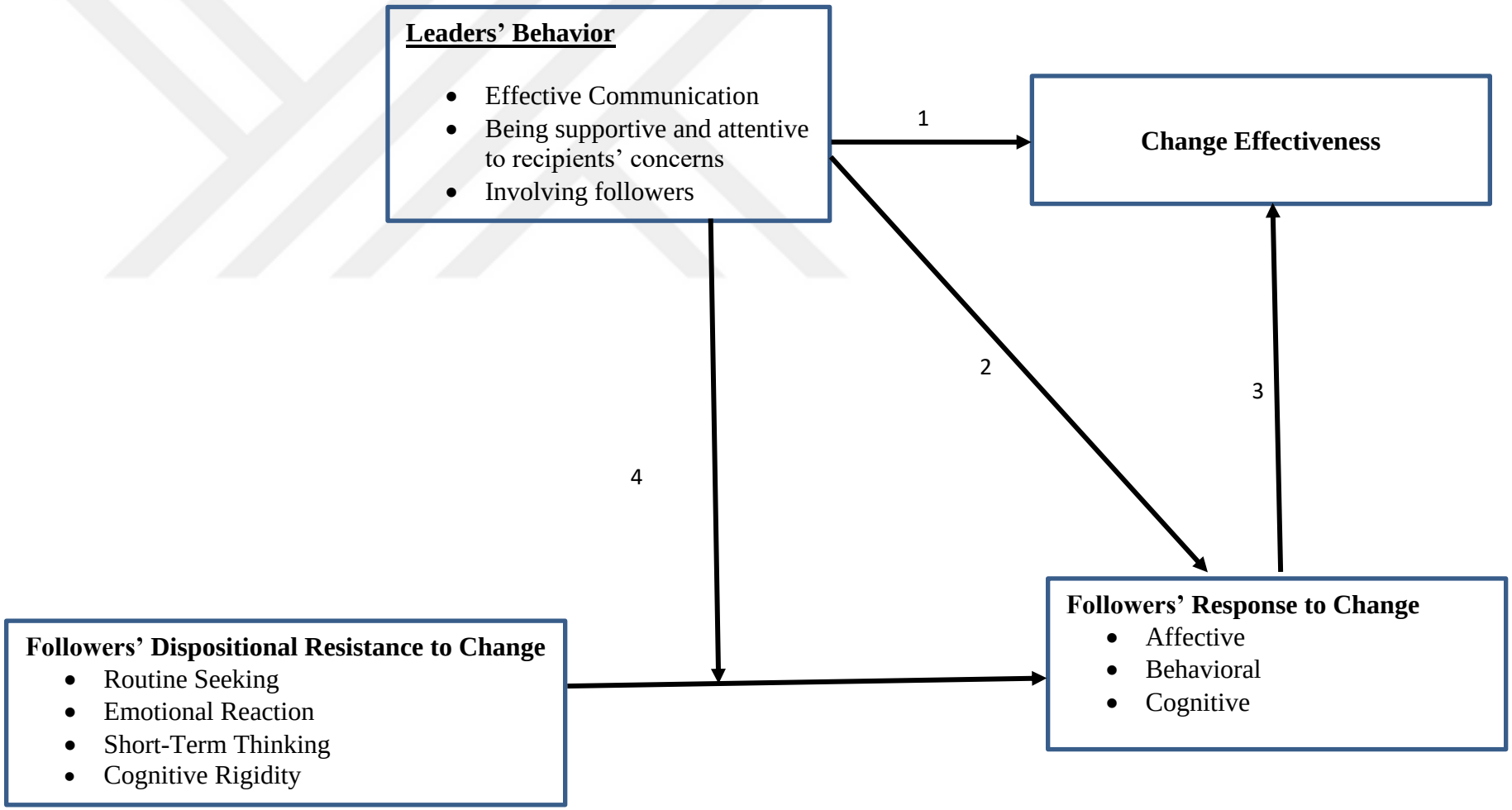


Figure 1: Model of Leadership and Organizational Change

2. RESEARCH METHODOLOGY

2.1. Research Design

"Research design is a comprehensive plan for data collection in an empirical research project." It aims to answer the research questions and test the hypothesis (Bhattacherjee, 2012, p. 35). The purpose of this research is to undertake explanatory or hypothesis-testing research - to establish the impact of leaders' behavior on change-related organizational outcomes. We also wish to establish the relationship between leaders' behavior and change recipients' responses to change. However, to achieve the study's objectives, primary data will be collected using a cross-sectional survey design, in which a single group of respondents will provide information about themselves through an online questionnaire (Leary, 2001). Additionally, the dependent and independent variables are simultaneously measured using a single questionnaire (Bhattacherjee, 2012).

2.2. Data Collection Process

According to Bhattacherjee (2012), data collection methods are generally categorized into two broad types: positivist and interpretative. Positivist methods focus on testing theories or hypotheses, whereas interpretative methods focus on building theories. Since this study's objective is to test theories or hypotheses, it will use the positivist method. Bhattacherjee also noted that these methods are often mistakenly equated with quantitative and qualitative research. He clarified that this is incorrect because quantitative and qualitative methods refer to the type of data that is collected, with quantitative data involving numerical scores and qualitative data involving non-numerical scores. He further stated that positivist research typically relies on quantitative data, which is also true for this study, as it will involve numeric scores.

Data types can also be categorized into either primary or secondary data. Primary data is collected firsthand by the researcher to fulfill the study's objectives, while secondary data is data that other researchers have previously collected. For this research, we utilize primary data. The data is collected using a cross-sectional survey design, in which a single group of respondents will provide information about themselves through an online questionnaire (Leary, 2001). Surveys allow for the efficient collection of substantial amounts of data from

a broad population in a highly cost-effective manner. This is why surveys are a popular data collection method (Saunders et al., 2009). Additionally, questionnaires are the most widely used data collection method because they allow researchers to easily gather information, and their responses can be easily coded. These advantages make an online questionnaire the ideal choice for this study, given that the researcher and respondents are in different locations (Sekaran, 2003). Consequently, it is considered the most appropriate method in terms of both time and cost.

2.3. Measures

2.3.1. Dispositional Resistance to Change

Dispositional resistance to change will be measured using Oreg's (2003) 17-item resistance to change (RTC) scale. There are four dimensions on the scale (routine seeking, emotional reaction, short-term focus, and cognitive rigidity), which together constitute the encompassing disposition to resist change. Sample items include: "I like to do the same old things rather than try new and different ones," "When things don't go according to plans, it stresses me out," "I sometimes find myself avoiding changes that I know will be good for me" and "my views are very consistent over time." The full scale is shown in Appendix 5. Response options are designed with a 5-point Likert-type scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. The convergent, discriminant, and predictive validities, as well as its internal consistency and its test-retest reliabilities of the scale, have been established by Oreg (2003) – studies 2 – 7. Moreover, the scale has repeatedly shown high structural stability and reliability in various contexts (Hon et al., 2011; Oreg, 2003, studies 2 – 7; Oreg, 2006; Oreg et al., 2008; Oreg & Berson, 2011). Since we are only interested in the overarching disposition towards change, we will, therefore, use only the composite RTC score to assess the employees' dispositional resistance to change, even though the scale also provides four subscale scores.

2.3.2. Response to Change

Followers' response to change will be measured using the 15-item change attitude scale of Oreg (2006). The items on the scale formed three dimensions: affective (e.g., "I had a bad

feeling about the change"), behavioral (e.g., "I complained about the change to my colleagues"), and cognitive (e.g., "I believed that the change would benefit the organization" – reverse coded). The full scale is reported in Appendix 6. On a 5-point scale ranging from 1 = strongly disagree to 6 = strongly agree, respondents will be asked to indicate the extent to which they agree with each item. The scale has been used in several previous studies and has consistently proved to be a valid and reliable measure of employees' response to change (Chung, et al., 2012; Meier, et al., 2013; Helpap, 2015; Oreg, 2006; Oreg & Berson, 2011; Sverdlik & Oreg, 2009). Although the scale offers three subscale scores, for this study, we are interested in assessing employees' overall response to change. Therefore, the three subscales are averaged to yield a single composite measure for response to change

2.3.3. Leaders' Behavior

The three key leadership styles, often referred to as "change information, "change support," and "change participation," which are essential to the change process, are used as measures for leaders' behavior. All items are measured on a 5-point Likert-type scale ranging from 1 = strongly disagree to 5 = strongly agree. *Change information* is measured using Wanberg and Banas's (2000) modified version of Miller et al.'s (1994) scale. Four items are on the scale (e.g., I have received adequate information about the change). This scale has been used in previous studies (Oreg, 2006; Wanberg & Banas, 2000) and has proved to be a valid and reliable measure of change information.

Change participation is measured using Daly and Geyer's (1994) four-item scale of "voice" (a form of participation). The scale was developed to measure the impact of participation in facility relocation decisions. So, it has been adapted and modified a bit to reflect the current study's purpose, which is to move lectures from traditional face-to-face classroom education to online. The scale includes items such as "People like myself had input into the decision to" move lessons online, "Before management decided to move" lessons online, "they asked me what I thought about the idea."

Change support is measured using the 5-item management support scale of Caldwell et al. (2004). Items such as "Sufficient resources were available to support this change" and "There

was sufficient Management support for this change" were included in this scale. Principal-components analysis was conducted to validate the scale using varimax rotation, and its reliability was also assured with an alpha value of 0.79. However, the item "Top management was supportive of this change" seems like a repetition of "There was sufficient Management support for this change." Therefore, that item will be dropped in the current study and replaced with "adequate training was provided to employees to equip them with the required knowledge and skills to implement the change." The full leaders' behavior scales can be found in Appendix 7.

2.3.4. Change Effectiveness

Change effectiveness will be measured using a single item based on the scale used by Stoker et al. (2012). The respondents will be asked to rate the effectiveness of the change on a 5-point Likert-type scale ranging from 1 = not effective at all to 5 = highly effective. This is shown in Appendix 8.

2.4. Population and Sample

"Population refers to the entire group of people, events, or things of interest that the researcher wishes to investigate" (Sekaran, 2003, p. 265). The target population for this particular study constitutes the entire staff body of higher education institutions in The Gambia. According to the Tertiary and Higher Education Act (2016) of the Gambia, "higher education institution means a university, or a center of education affiliated to a university other than a tertiary institution." From the list obtained from the National Accreditation and Quality Assurance Agency (NAQAA) of the Gambia, there are currently eight (8) higher education institutions in The Gambia: The University of The Gambia (UTG), American International University West Africa (AIUWA), International Open University (IOU), Al Ihsan University College, Al Hikma University College, Management Development Institute (MDI), Euclid Online University, and The University of Applied Science, Engineering and Technology (USET) formally Gambia Technical Training Institute (GTTI). Two of the universities from this list (International Open University and Euclid Online University) are predominantly online universities. Hence, their courses are conducted online and unaffected by the COVID-19 pandemic. Therefore, they are not within the scope of this study since they

did not experience any changes in terms of moving their lectures from face-to-face to online. Two other universities from the list (Al Ihsan University College, and Al Hikma University College) are Arabic Universities, and their staff have little to no formal education in English. Therefore, they cannot participate in the study because they are unable to read, understand, or respond meaningfully to the self-administered online questionnaire due to their insufficient comprehension of and proficiency in the English language. In addition, the Vice-Chancellor of AIUWA did not grant permission for the questionnaire to be administered to his university staff. Hence, AIUWA was also excluded from the study.

The total staff population of the remaining three institutions is shown in Table 1. However, researchers rarely study the entire population (i.e., every individual or item of interest within the population). Instead, they gather data from a subset of the population known as a sample (Leary, 2001). Probability sampling is recommended to ensure that the research findings are generalizable. However, there are instances where data can only be obtained through nonprobability sampling (Sekaran, 2003).

In this study, in addition to the five institutions that were excluded due to the scope or language barrier, the administrative staff of the remaining four institutions were also excluded because their work was not affected by the change. They continued coming to the office to work during Covid-19. Therefore, it was not feasible to obtain a probability sample due to the unequal chances of including all population elements in the sample. Consequently, the researcher had to utilize judgment sampling, a method used to select a specific group of individuals who are most capable of providing the necessary information for the research as a sample (Sekaran, 2003). Unlike probability sampling, nonprobability sampling techniques, except for quota samples, do not have strict rules regarding sample size. The sample size is determined by the research question(s) and objective(s) (Saunders et al., 2009). Additionally, "survey research is generally notorious for its low response rates" (Bhattacherjee, 2012, p. 80), especially with online questionnaires, where a response rate of 30% or lower is typically considered reasonable (Saunders et al., 2009). Based on these considerations and to improve the response rate, the entire remaining academic staff population of 435 was included in the sample. Of these, 238 staff members responded to the questionnaire, resulting in a response rate of 55%, as shown in Table 1.

Table 1: Population, Sample, and Response Rate.

Name of the Institution	**Total Staff Population**	**Academic Staff Population**	**Respondents**	**Response Rate**
The University of The Gambia	625	271	150	55%
Management Development Institute	82	23	19	82%
University of Applied Sciences, Engineering and Technology	256	141	69	49%
Total	963	435	238	55%

The demographic profile of the respondents is presented in Table 2**.**

2.5. Unit of Analysis and Time Horizon

"The unit of analysis refers to the level of aggregation of the data collected during the subsequent data analysis stage." It might be individuals, dyads, groups, organizations, cultures, etc. (Sekaran, 2003, p. 132). Since the present study is about leaders' behavior, followers' reaction to change, and followers' perception of how effective the change was implemented, thus, the level of individual employees' perception and reaction has to be measured. Thus, 'individual' is the unit of analysis for this study. In terms of time horizon, research can be either cross-sectional, where data is collected at a single point in time (such as over a few days, weeks, or months), or longitudinal, where data is collected on dependent variables at multiple points in time to address the research questions (Sekaran, 2003; Saunders et al., 2009). This study uses a cross-sectional design, as data was collected once over several months, specifically from April 2023 to November 2023.

Table 2: Demographic Profile of Respondents. N = 238.

	Frequency	Percent	Cumulative Percent
Institution			
UTG	150	63	63
MDI	19	8	71
GTTI / USET	69	29	100
Status			
Full Time	214	89.9	89.9
Part Time	24	10.1	100
Gender			
Male	203	85.3	85.3
Female	35	14.7	100
Age			
Below 30	20	8.4	8.4
30 to 40	108	45.4	53.8
41 to 50	72	30.3	84
51 to 60	30	12.6	96.6
Above 60	8	3.4	100
Marital Status			
Single	36	15.1	15.1
Married	197	82.8	97.9
Separated	1	0.4	98.3
Divorced	2	0.8	99.2
Widowed	2	0.8	100
Education			
Bachelor's Degree	31	13	13
Master's Degree	111	46.6	59.7
Doctoral Degree	58	24.4	84
Others	38	16	100
Monthly Income (in GMD)			
Less than 20,000	80	33.6	33.6
20,000 to 30,000	44	18.5	52.1
30,001 to 40,000	55	23.1	75.2
40,001 to 50,000	32	13.4	88.7
Above 50,000	27	11.3	100
Work Experience (in Years)			
Less than 6	87	36.6	36.6
6 to 10	86	36.1	72.7
Above 10	69	27.3	100

2.6. Data Analysis Methods

The data is analyzed with the help of SmartPLS 4.1.0.0 using partial least squares structural equation modeling (PLS-SEM). As Hair et al. (2019) recommended, we started by assessing the measurement model. First, we will examine the indicator loadings to establish individual item or indicator reliability. Loadings above 0.70, which shows that a construct explains more than 50% of the indicator's variance, is acceptable. However, Hair et al. (2011) argued that, in general, when evaluating indicators, it is recommended to consider removing those with loadings ranging from 0.40 to 0.70 only if eliminating them improves the composite reliability of the scale beyond the recommended threshold. Another factor to consider when deciding whether to remove indicators is the impact their removal has on validity. Sometimes, weaker indicators are kept in the scale due to their contribution to content validity. Nevertheless, indicators showing extremely low loadings of 0.40 or below should always be removed from reflective scales.

Next, the internal consistency reliability is assessed. Traditionally, this is done using Cronbach's alpha (Cronbach & Meehl, 1955). However, Hair et al. (2014) suggest the use of composite reliability for the fact that composite reliability, unlike Cronbach's alpha, does not assume that all indicator loadings in the population are equal, which is consistent with the PLS-SEM algorithm's operating principle of prioritizing indicators based on their individual reliabilities during model estimation. Also, Cronbach's alpha generally tends to underestimate reliability due to its sensitivity to the number of items in the scale. PLS-SEM is able to solve these limitations by using composite reliability. Hair et al. (2019) argued that while Cronbach's alpha may be overly conservative, composite reliability may be very liberal, and the construct's true reliability is often considered as falling somewhere between these two extremes. Thus, Dijkstra and Henseler's rho (pA), proposed by Dijkstra and Henseler (2015), which usually lies between Cronbach's alpha and the composite reliability, is a good compromise. For this study, we will calculate all three reliability measures and compare them. According to Nunnay and Berndtein (1994), reliability values ranging from 0.60 to 0.70 are considered acceptable in exploratory research, while in more advanced stages of research, values ranging from 0.70 to 0.90 are deemed satisfactory. Conversely, values below 0.60 suggest inadequate reliability.

Furthermore, the validity of the constructs is examined. This is done by examining the construct's convergent and discriminant validity. The convergent validity of each construct is measured using the average variance extracted (AVE). Convergent validity is assured when each construct's AVE is 0.50 or higher. A construct with an AVE of 0.50 or higher explains 50% or more of the variation of the indicators that make up the construct. In assessing discriminant validity, the traditional and well-known Fornell and Larcker's criterion is mostly used. However, recent studies (e.g., Henseler, Ringle, and Sarstedt, 2015) indicate that this metric is unsuitable for discriminant validity assessment, especially when indicator loadings on a construct are only marginally different. Therefore, the most recent and accurate heterotrait-monotrait ratio (HTMT) proposed by Henseler et al. (2015) will be used in this study. When the HTMT is 0.85 and below, we say that discriminant validity is established in the model.

After a satisfactory measurement model assessment, we then assess the structural model by following the systematic structural model assessment procedure recommended by Hair et al. (2022) as shown in Figure 2.

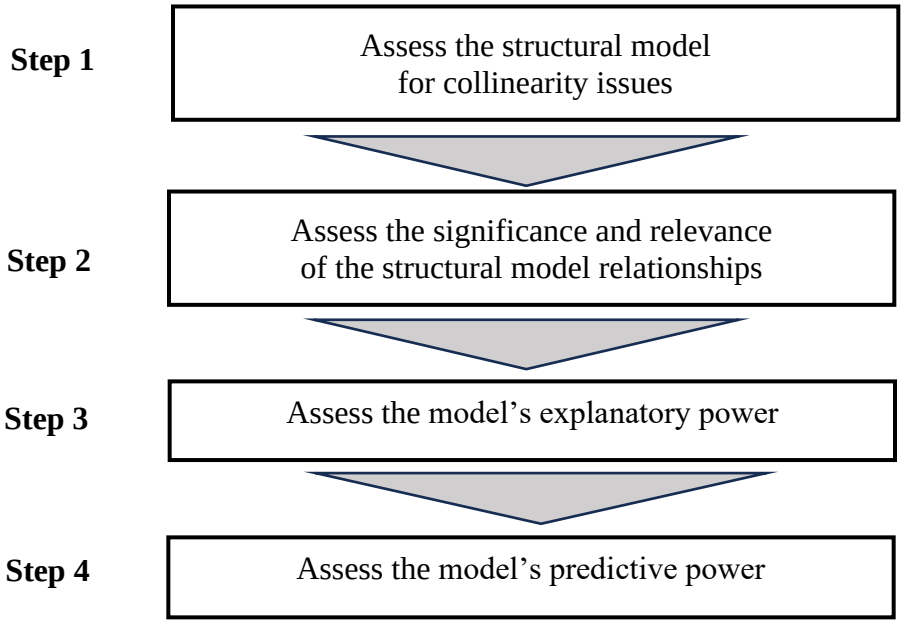


Figure 2: Structural Model Assessment Procedure

Source: Hair et al. (2022)

We must first examine the collinearity issues of the structural model by calculating the variance inflation factor (VIF) to ensure that our regression results are not biased. VIF values of 5 or less are ok, but values of close to 3 or lower are ideal (hair et al., 2019).

Once we are sure that collinearity is not an issue, the next step is to run the PLS model to get estimates of the path coefficients "to assess the significance and relevance of the structural model relationships" (i.e. to test our hypotheses) (Hair et al., 2022, p. 188). The values of path coefficients are standardized on a scale of -1 to +1, with coefficients closer to -1 denoting strong negative relationships and coefficients closer to +1 denoting strong positive relationships. While values close to +1 and -1 are typically statistically significant, standard errors are obtained through bootstrapping to determine and confirm their significance (Helm et al., 2009). The bootstrap standard error helps in calculating the empirical t-values and p-values for all structural path coefficients. We infer that the coefficient is statistically significant when the critical t-value is less than the empirical t-value. At a 5% significant level, the critical t-value for a one-tailed test is 1.65, and for a two-tailed test, it is 1.96. Most researchers, however, use p-values to assess the significance of path coefficients. For a relationship between two constructs or variables to be considered significant at a 5% level, the p-value must be less than 0.05 (Hair et al., 2022). In addition, bootstrap confidence intervals are reported as proposed by Ali et al. (2017). Since we are running mediation and moderation analysis, the direct and indirect effects are compared using bootstrapping (Nitzl et al., 2016). The direct and indirect effects are summed to interpret a construct's total effect (hair et al., 2019).

We then examine the R^2 values (the model's explanatory or in-sample predictive power) of endogenous constructs. It ranges from 0 – 1 and values of 0.75, 0.50, and 0.25, respectively, describing substantial, moderate, and weak levels of explanatory or predictive accuracy (Henseler et al., 2009; Hair, et al., 2011). Cohen's f^2 is calculated to determine the effect size. The effect size is calculated to assess the changes in R^2 when a specific endogenous construct is removed from the model. For instance, if the removal of a construct results in a significant decrease in the R^2 value of the endogenous construct, it indicates that the predecessor construct has a considerable impact (Hair et al., 2022). As a rule of thumb, values higher than 0.02, 0.15, and 0.35 depict small, medium, and large f^2 effect sizes (Cohen, 1988). When the

effect size value is below 0.02, "there is no measurable effect" (Hair et al., 2022, p. 195). However, Aguinis et al. (2005) have demonstrated that the typical effect size in moderation tests averages merely 0.009. Considering this, Kenny (2018) suggests that, for small, medium, and high impact sizes, respectively, 0.005, 0.01, and 0.025 represent more realistic thresholds. However, he also notes that considering the review of Aguinis et al. (2005), even these values are optimistic.

Finally, the PLS structural model's predictive power is assessed. To do that, previous studies (e.g. Stone, 1974; Geisser, 1974) relied on Stone-Geisser's **Q^2 statistic** to assess the model's predictive power. As a rule of thumb, like f^2 effect size, small, medium, and large predictive relevance of the PLS-path model are represented by Q^2 values higher than 0, 0.25, and 0.5, respectively (Hair et al., 2019). However, recent studies criticize the use of Q^2 statistics, citing that it is not a good measure of a model's predictive power since it blends both explanatory and predictive power assessment (Shmueli et al., 2016; Sarstedt et al., 2017). Due to the limitations of the **Q^2 statistic,** Shmueli et al.'s (2016) **PLSpredict procedure** is now recommended as the primary way of assessing the model's predictive power (Hair et al., 2022). For a detailed theoretical explanation of the concept of PLSpredict, please refer to Shmueli et al. (2016) or Hair et al. (2022). For the assessment of the model's predictive power using Smart PLS, Hair et al. (2022, p. 200) recommend the utilization of "one of the following prediction statistics: The mean absolute error (MAE) or the root mean square error (RMSE)." In general, when analyzing the results of PLSpredict, researchers should concentrate on the main endogenous construct in their model. After the identification of the main endogenous construct, the Q^2predict should then be interpreted first before assessing the prediction statistics (Evermann & Tate, 2016). In assessing the prediction statistics, it is recommended that RMSE be used unless the prediction error distribution is highly non-symmetric, in which case the use of MAE will be more suitable. When the Q^2predict values are more than zero (suggesting that the model has predictive power), the RMSE (MAE) values of the PLS-SEM should be compared with the LM benchmark values (Hair, et al., 2022). The guidelines for using and interpreting PLSpredict results are summarized in Figure 3.

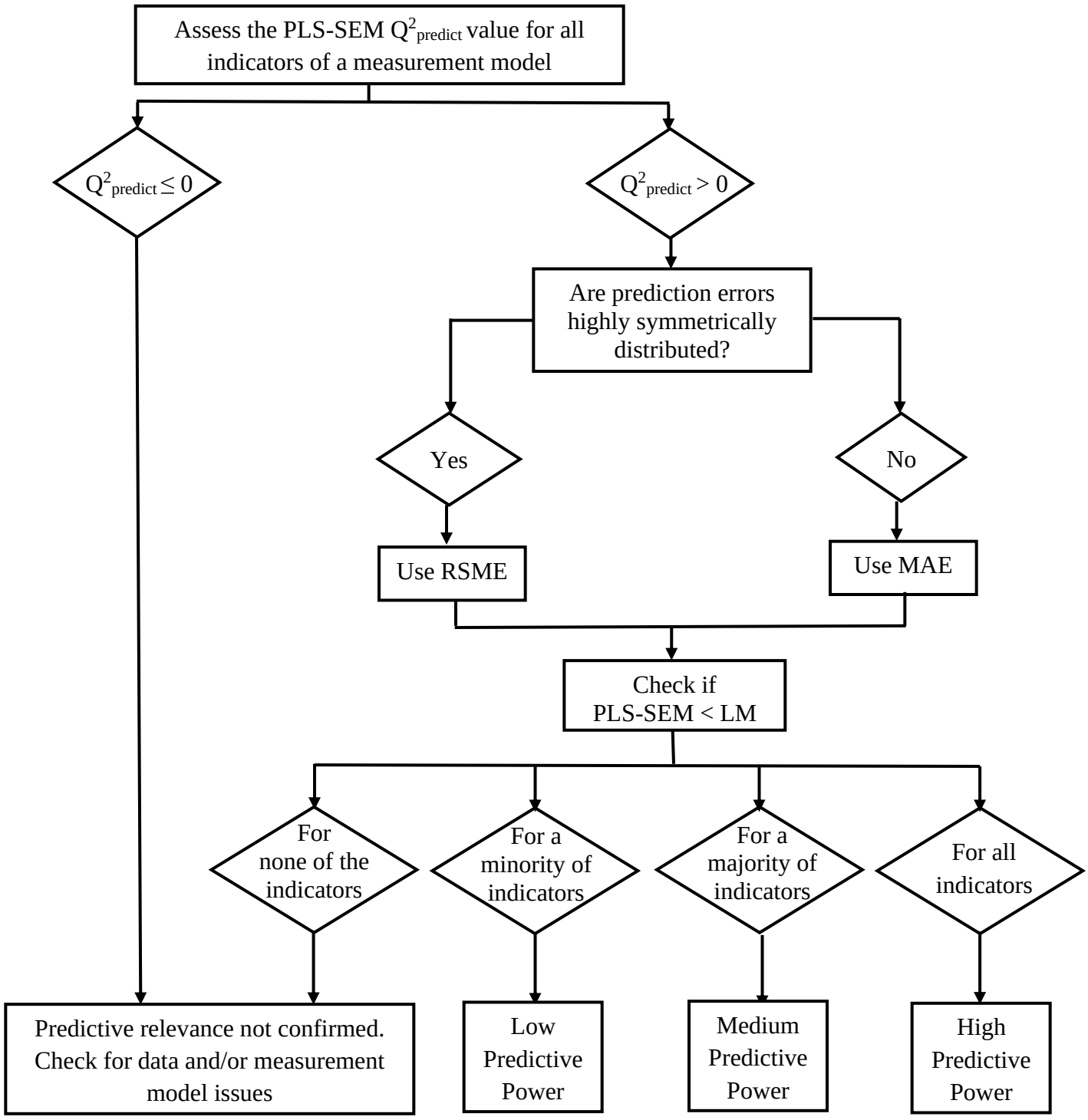


Figure 3: Guidelines for Using and Interpreting PLSpredict Results

Source: Shmueli et al. (2019)

It is worth noting that the higher the model's predictive power, the more generalizable the findings of the study are and, thus, the more useful the results are for managerial decision-making (Hair & Sarstedt, 2021)

2.7. Ethical Considerations

According to Saunders et al. (2009, pp. 183 - 184), ethics in research refers to the "appropriateness of your behavior in relation to the rights of those who become the subject of your work or are affected by it." Some of the ethical behaviors widely accepted in scientific research are related to voluntary participation and harmlessness, anonymity and confidentiality, disclosures, and analysis and reporting (Bhattahrjee, 2012). The researcher ensured that these ethical behaviors and considerations were followed in the following ways:

1. Letters (Appendix 2) were dispatched to all the heads of the institutions involved in the study to request their permission to administer the questionnaire in their various institutions. The purpose of the study was clearly explained in the letter, and permission was granted before administering the questionnaires. Only AIUWA did not grant permission; thus, it was excluded from the study.
2. The study participants were provided information about the researcher and the research objectives in the consent form (appendix 3) included with the questionnaire. This allowed them to make an informed decision about whether or not they wanted to participate in the study.
3. Participation in the research was entirely voluntary, and no one was compelled to complete the survey.
4. Given that the survey was conducted online, respondents' anonymity was guaranteed by not using names or identification numbers to track who was participating. They were also assured that their responses would remain confidential, with a commitment that the information would be used solely for academic research purposes and would not be disclosed to any individual or organization without their explicit approval.
5. The researcher ensured that the data was analyzed and reported objectively and responsibly, without any manipulation for personal gains. Engaging in data manipulation is unethical. Bhattahrjee (2012) argued that in positivist research, it is considered unethical to develop hypotheses based on data analysis outcomes, as the

purpose of data is to test hypotheses rather than build them. As this study follows a positivist approach, hypotheses have been formulated prior to the analysis of data. In addition, he highlighted the unethical nature of partitioning the data into several segments for the purpose of either substantiating or rejecting specific hypotheses or for producing multiple papers that appear to be based on separate data sets. This research has completely avoided these practices.

6. The study's limitations are fully disclosed to help other researchers avoid similar issues in the future.

3. RESULTS AND ANALYSIS

3.1. Data Distribution

Before proceeding with the analysis, the data distribution is assessed to ensure it is normal. It is worth noting that PLS-SEM does not assume any specific data distributions (Hair et al., 2011). However, ensuring that the data are reasonably close to normal is crucial, as highly nonnormal data can cause issues when evaluating the significance of parameters. In particular, extreme nonnormality increases standard errors derived from bootstrapping, which can lead to type II errors (Hair, et al., 2022). The distribution of the responses is shown in Figure 4. The distribution of all our variables appears remarkably normal, with no extreme values. They are well-balanced (symmetric), showing no signs of being too peaked or flat.

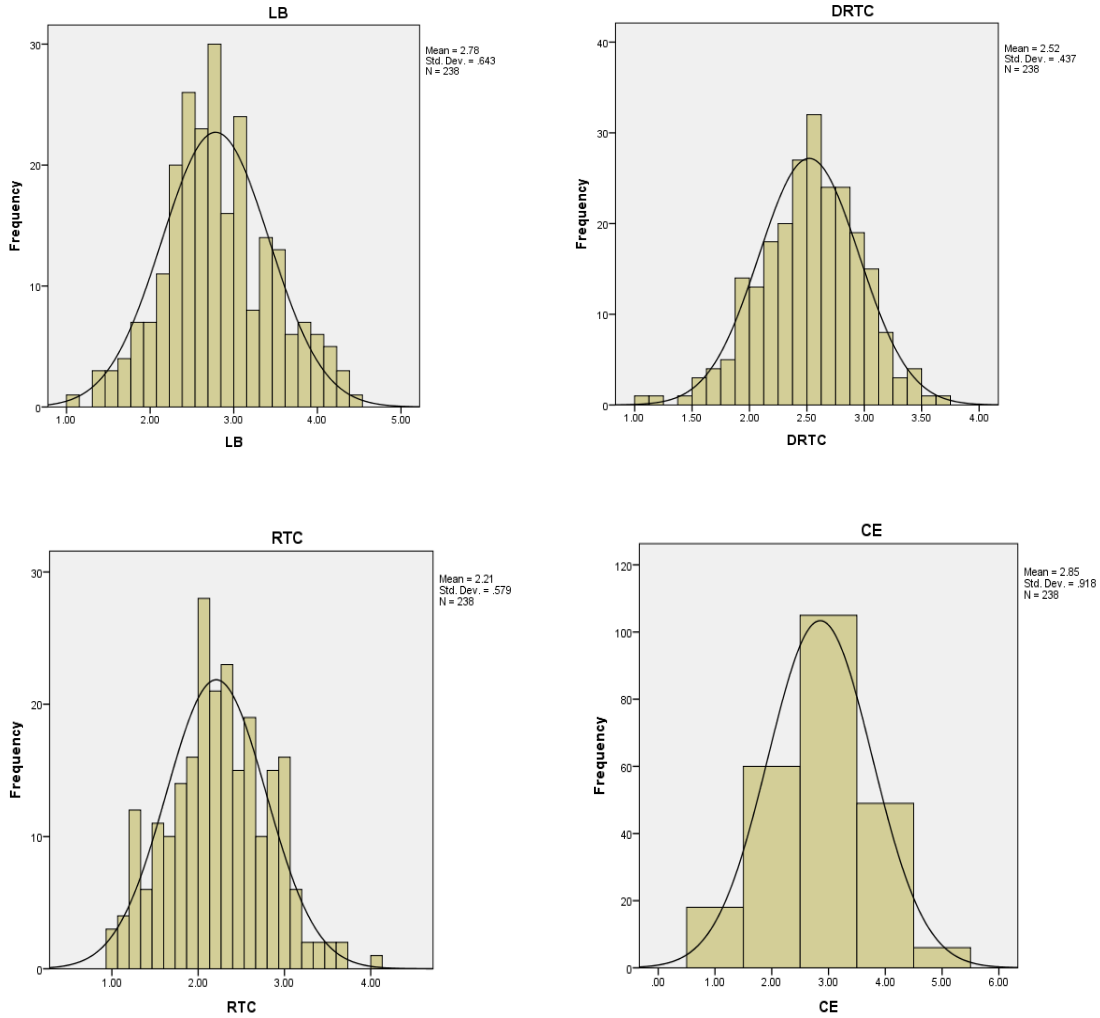


Figure 4: Distribution of Responses

The other important measures for the normality of the distribution are skewness and kurtosis, which enable the evaluation of the degree to which the data deviates from normality (Hair et al., 2019). Generally, skewness values ranging from −1 to +1 are regarded as excellent, while values between −2 and +2 are typically acceptable. Values outside of this −2 to +2 range suggest significant nonnormality. Similar to skewness, the general rule for kurtosis is that a value over +2 indicates an excessively peaked distribution, while a value below −2 suggests the distribution is too flat. When skewness and kurtosis are near zero, the response pattern is normally distributed (George & Mallery, 2019). As shown in Table 3, the skewness and kurtosis values are all within the range of −1 to +1. Therefore, it is concluded that the data is exceptionally normally distributed.

Table 3: Skewness and Kurtosis

Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
RTC	238	2.2095	.57930	.107	.158	-.259	.314
DRTC	238	2.5194	.43653	-.294	.158	.331	.314
LB	238	2.7831	.64318	.210	.158	-.075	.314
CE	238	2.8529	.91829	-.099	.158	-.261	.314
Valid N (listwise)	238						

3.2. Correlation Analysis

Pearson's correlation analysis was conducted to examine the relationship between some variables of interest. The results indicated a strong positive correlation between leaders' behavior and change effectiveness, $r = 0.505$, $p < 0.01$, suggesting that positive leader behaviors lead to improvements in the implementation of organizational change. This indicates a significant relationship between the variables. The results also showed a negative relationship between leaders' behavior and resistance to change, r = -0.102, p = 0.117, indicating that positive leader behaviors are effective in mitigating negative responses to change and reinforcing positive responses. However, the relationship is not significant, indicating no meaningful association between the two variables. Furthermore, there is a

significant moderate negative correlation between resistance to change and change implementation, r = -0.254, p < 0.01, suggesting that a reduction in followers' resistance to change leads to improvements in change implementation. In other words, the more positive employees respond to change, the better the implementation of that change. Finally, the correlation between dispositional resistance to change and resistance to change is positive and significant, r = 0.313, p < 0.01. This indicates that employees of higher education institutions in the Gambia who are highly dispositionally resistant to change are less likely to accept change and more likely to resist it. The analysis included n = 238 respondents.

Table 4: Correlation Results

		LB	RTC	CE	DRTC
LB	Pearson Correlation	1	-.102	.505**	.112
	Sig. (2-tailed)		.117	.000	.086
	N	238	238	238	238
RTC	Pearson Correlation	-.102	1	-.254**	.313**
	Sig. (2-tailed)	.117		.000	.000
	N	238	238	238	238
CE	Pearson Correlation	.505**	-.254**	1	-.002
	Sig. (2-tailed)	.000	.000		.979
	N	238	238	238	238
DRTC	Pearson Correlation	.112	.313**	-.002	1
	Sig. (2-tailed)	.086	.000	.979	
	N	238	238	238	238

**. Correlation is significant at the 0.01 level (2-tailed).

3.3. Measurement Model Assessment

After ensuring that the data is normally distributed, the measurement model is evaluated to assess the quality of the constructs. The quality criteria assessment starts with the evaluation of the factor loadings, which is followed by construct reliability and construct validity.

3.3.1. Factor Loadings

First, we examined the indicator loadings to establish individual items or indicator reliability. Loadings above 0.70, which shows that a construct explains more than 50% of the indicator's

variance, are acceptable. However, Hair et al. (2011) argued that, in general, when evaluating indicators, it is recommended to consider removing those with loadings ranging from 0.40 to 0.70 only if eliminating them improves the composite reliability of the scale beyond the recommended threshold. Another factor to consider when deciding whether to remove indicators is the impact their removal has on validity. Sometimes, weaker indicators are kept in the scale due to their contribution to content validity. Nevertheless, indicators showing extremely low loadings of 0.40 or below should always be removed from reflective scales. Only one indicator (Cognitive rigidity) with a loading of 0.348 is below the minimum acceptable level of 0.4, and thus, it has been removed from the model. The remaining indicators seen in both Figure 4 and Table 3 are retained because they are all well above the required minimum acceptable level of 0.4 and either very close to or above the preferred level of 0.7.

Table 5: Indicator loadings

	RTC	LB	DRTC	CE
A	0.888			
B	0.834			
C	0.832			
CI		0.757		
CP		0.673		
CS		0.814		
ER			0.833	
RS			0.684	
STT			0.745	
CE1				1.000

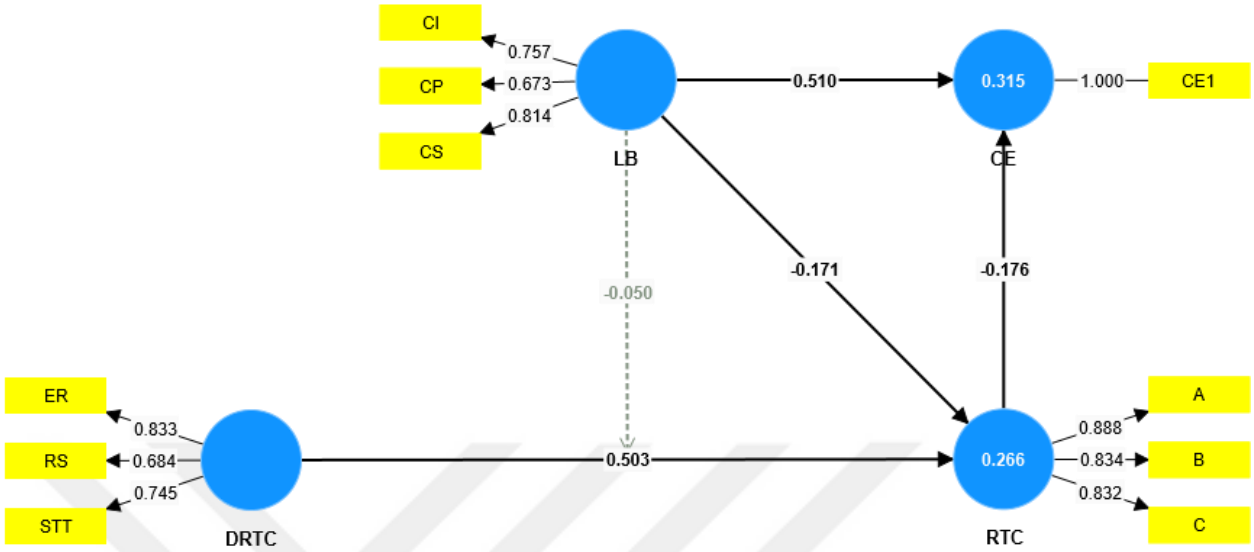


Figure 5: Indicator Loadings

3.3.2. Construct Reliability

Next, we assessed internal consistency reliability. Traditionally, this is done using Cronbach's alpha (Cronbach & Meehl, 1955). However, Hair et al. (2014) suggest the use of composite reliability for the fact that composite reliability, unlike Cronbach's alpha, does not assume that all indicator loadings in the population are equal, which is consistent with the PLS-SEM algorithm's operating principle of prioritizing indicators based on their individual reliabilities during model estimation. Also, Cronbach's alpha generally tends to underestimate reliability due to its sensitivity to the number of items in the scale. PLS-SEM is able to solve these limitations by using composite reliability. Hair et al. (2019) argued that while Cronbach's alpha may be overly conservative, composite reliability may be very liberal, and the construct's true reliability is often considered as falling somewhere between these two extremes. Thus, Dijkstra and Henseler's rho (pA), proposed by Dijkstra and Henseler (2015), which usually lies between Cronbach's alpha and the composite reliability, is a good compromise. For this study, we calculated all three reliability measures and compared them. According to Nunnay and Berndtein (1994), reliability values ranging from 0.60 to 0.70 are considered acceptable in exploratory research, while in more advanced stages of research, values ranging from 0.70 to 0.90 are deemed satisfactory. "Values above 0.90 (and definitely above 0.95) are not desirable because they are typically the result of

semantically redundant items, which slightly rephrase the very same question." Conversely, values below 0.60 suggest inadequate reliability (Hair, et al., 2022, p. 119). As shown in Table 4, all the reliability values are above 0.60. Moreover, all the composite reliability values, which are more consistent with the PLS-SEM algorithm's operation, are more than the satisfactory level of 0.70. Also, none of the values are above 0.95. Therefore, construct reliability is established.

Table 6: Construct Reliability

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
DRTC	0.625	0.641	0.800
LB	0.611	0.624	0.793
RTC	0.811	0.813	0.888

3.3.3. Validity

After assessing the reliability of the constructs, we examined their validity. This is done by examining the construct's convergent and discriminant validity.

3.3.3.1. Convergent Validity

"Convergent validity is the degree to which multiple attempts to measure the same concept are in agreement. The idea is that two or more measures of the same thing should covary highly if they are valid measures of the concept" (Bagozzi, et al., 1991, p. 425). In other words, "Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct (Hair, et al., 2022, p. 120). The convergent validity of each construct is measured using the average variance extracted (AVE). Convergent validity is assured when each construct's AVE is 0.50 or higher. A construct with an AVE of 0.50 or higher explains 50% or more of the variation of the indicators that make up the construct. The AVE values for each of the constructs are reported in Table 5**.** All the values are above 0.50; thus, convergent validity is assured.

Table 7: Construct Convergent Validity (AVE)

	Average variance extracted (AVE)
DRTC	0.572
LB	0.563
RTC	0.726

3.3.3.2. Discriminant Validity

"Discriminant validity is the degree to which measures of different concepts are distinct. The notion is that if two or more concepts are unique, then valid measures of each should not correlate too highly" ((Bagozzi, et al., 1991, p. 425). In other words, "Discriminant validity is the extent to which a construct is truly distinct from other constructs by empirical standards" (Hair, et al., 2022, p. 120). The traditional and well-known Fornell and Larcker's criterion is mostly used in assessing discriminant validity. However, recent studies (e.g., Henseler et al., 2015) indicate that this metric is unsuitable for discriminant validity assessment, especially when indicator loadings on a construct are only marginally different. Therefore, the most recent and accurate heterotrait-monotrait ratio (HTMT) proposed by Henseler et al. (2015) is used in this study. When the HTMT is 0.85 and below, we say that discriminant validity is established in the model. All the HTMT values reported in Table 6 are less than 0.85. Hence, discriminant validity is established.

Table 8: Heterotrait-Monotrait ratio (HTMT) - Matrix

	CE	DRTC	LB	RTC	LB x DRTC
CE					
DRTC	0.056				
LB	0.675	0.138			
RTC	0.272	0.677	0.213		
LB x DRTC	0.046	0.166	0.168	0.045	

3.4. Structural Model Assessment

After a satisfactory measurement model assessment, we then assessed the structural model by examining the coefficient of determination (R^2), the blindfolding-based cross-validated redundancy measure Q^2, as well as the statistical significance and relevance of the path coefficients. We estimated a series of regression equations to get structural model coefficients for the relationships between the constructs. However, the structural model must first be assessed for any potential issues related to collinearity.

3.4.1. Collinearity

We must first examine collinearity by calculating the variance inflation factor (VIF) to ensure our regression results are unbiased. VIF values of 5 or less are ok, but values close to 3 or lower are ideal (hair et al., 2019). The VIF values are presented in Table 7**.** All the values are less than 3. Thus, there is no issue of multicollinearity.

Table 9: Collinearity Statistics (VIF)

	VIF
DRTC -> RTC	1.004
LB -> CE	1.018
LB -> RTC	1.004
RTC -> CE	1.018

3.4.2. Significance of Structural Model Relationships (Hypothesis Testing)

Once we are sure that collinearity is not an issue, the next step is to run the PLS model to get estimates of the path coefficients "to assess the significance and relevance of the structural model relationships" (i.e. to test our hypotheses) (Hair et al., 2022, p. 188). We run the bootstrapping procedure to assess the significance of the relationship between the path coefficients in our model. The result of the bootstrapping procedure is shown in Figure 5**.** The result indicates that all the direct relationships in the structural model are significant at a 5% significance level.

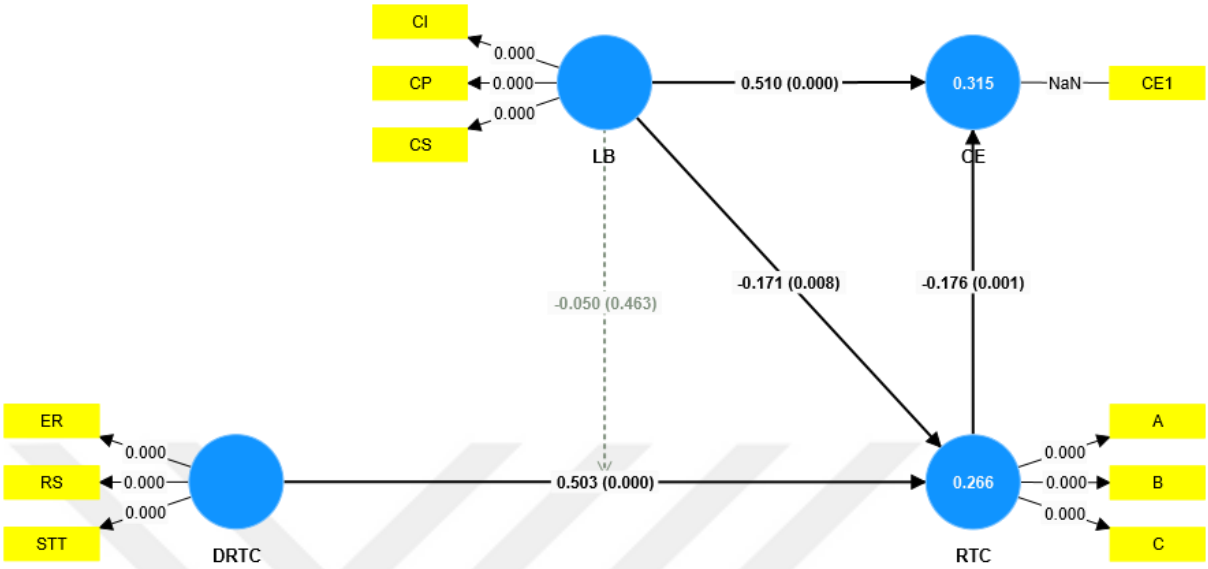


Figure 6: Path Coefficients

For a detailed overview of the results and to test our hypothesis for our direct relationships, the bootstrapping report is presented in Table 8**.**

Table 10: Results of Structural Model Path Coefficient (Direct Relationships).

Hypotheses	Relationship	Beta Coefficient	Standard deviation (STDEV)	P values	Decision
H1	LB -> CE	0.540	0.047	0.000	Supported
H2	LB -> RTC	-0.171	0.064	0.008	Supported

H1 evaluates whether leaders' behaviors, such as effective communication, being supportive and attentive to recipients' concerns, and involving followers positively influence change effectiveness. The results in Table 8 reveal that leaders' behavior (LB) exerts a positive (0.540) and significant ($p < 0.05$) influence on change effectiveness (CE). Hence, H1 is substantiated or supported. This result is consistent with the findings of previous studies in which leaders' behavior is shown to positively influence change effectiveness (Grutterink & Kolk, 2012; Beatty & Lee, 1992). The results of Waldman et al. (2001) also indicate a positive relationship between charismatic leadership and performance under conditions of uncertainty. Furthermore, Higgs and Rowland (2005,2011) pointed out that "facilitating" and

“engaging” leader behaviors are positively linked to change success. Errida and Lotfi (2021) also argued that strong leadership, effective and constant communication, and employee involvement are essential for the effective implementation of organizational change. The results of Bommer et al. (2023) also show that transformational leadership has a significant influence on effective change management.

H2 evaluates whether leaders’ behaviors, such as effective communication, being supportive and attentive to recipients’ concerns, and involving followers, positively influence followers’ responses to change. Response to change is measured by Oreg's resistance to change scale (2016). The results in Table 8 reveal that leaders' behavior (LB) exerts a negative (-0.171) and significant ($p < 0.005$) influence on followers’ resistance to change (RTC). Thus, we can conclude that positive leader behaviors such as effective communication, being supportive and attentive to recipients’ concerns, and involving followers lead to a reduction in followers’ resistance to change. In other words, leaders’ behavior positively relates to followers’ response to change. Hence, H2 is substantiated or supported. This upholds the theoretical argument that “leaders promote change by engaging followers and shaping their emotional and attitudinal responses” (Bartunek et al., 1999; Shamir et al., 1993, as cited in Oreg, 2019).

It is also in line with the cognitive dissonance theory, which states that it is crucial to align followers’ level and nature of involvement in change implementation with the degree of dissonance that potential changes might cause because people's acceptance of or resistance to change depends greatly on the way that change is managed (Burnes, 2017). The dept of intervention theory also asserts that in order to mitigate resistance, it is essential to connect the participation level with the types of proposed changes and their psychological impact. This explains why participation is necessary in some situations but not others, especially when the psychological impact is shallow (Burnes, 2017). Nonetheless, typically, change recipients who are extensively involved in the change process generally expressed greater preparedness and acceptance of the change, perceived it as less stressful, and displayed overall support for the change (Oreg et al., 2011).

Also, in line with the theory of psychological contracts, Burnes (2017) explains that if the organization, intentionally or unintentionally, modifies or breaches one aspect of the contract

without renegotiating the agreement, it essentially creates a scenario where individuals face conflicting expectations from the organization. Nevertheless, people are less likely to oppose the change if they understand why the contract needs to be adjusted and if this results in a new psychological contract that aligns with the demands placed on them (Burnes, 2017). This emphasizes the importance of leadership in influencing how individuals respond to change. If the change information is effectively communicated to employees, they are less likely to resist it.

Previous studies such as Huy et al. (2014) also suggest that effectively communicating the need for radical change and involving followers in defining the change content improves the followers' judgment about the legitimacy of their leaders to lead the change process and leads to a positive emotional reaction from the followers. This, in turn, improved their trust in their leaders, invigorated their supportive actions, and decreased their resistance to radical change. The results of Helpap (2015) also demonstrated that employees' resistance to change is lowered with better communication and involvement in the change process. In yet another study by Jones and Van de Ven (2016), supportive leadership is found to have a significant negative influence on resistance to change, and the effect becomes stronger over time. Several other studies in the literature have theoretically proven that leadership style or leaders' behavior is vital in increasing positive reactions to organizational change (e.g. Albrecht et al., 2020; Bayraktar & Jiménez, 2020; Busari et al., 2019; Faupel, & Süß, 2019; Khan, et al., 2018; Onyeneke, & Abe 2021; Peng, et al., 2020; Peng et al (2021)

All these indicate that the management of the change in terms of the change agent's leadership style and the followers' level of involvement in the change process can influence the level of resistance to the change (Buchanan & Boddy, 1992; Burnes & Jackson, 2011; Hon et al, 2014). Employee involvement and a participative leadership style are typically seen as being necessary for successful change (Oreg et al, 2011).

3.4.3. Mediation Analysis

The mediation analysis results are reported in Table 9.

Table 11: Summary of the Mediation Results

Hypothesis	Relationship	Beta Coefficient	Standard deviation (STDEV)	P values	Decision
	LB -> CE	0.540	0.047	0.000	
H3	LB -> RTC -> CE	0.030	0.015	0.043	Supported

H3 evaluates whether followers' response to change mediates the relationship between leaders' behavior and change effectiveness. The results in Table 9 indicate that both the direct and indirect effects denoted by LB -> CE and LB -> RTC -> CE, respectively, are significant ($p < 0.05$). The significance of the indirect effect means that followers' response to change (RTC) mediates the relationship between leaders' behavior and change effectiveness; hence, our H3 is supported. However, given the significance and meaningfulness of both the direct and indirect effects, we infer that the relationship between leaders' behavior and change effectiveness is partially mediated by the response to change (RTC). Furthermore, since both the direct and indirect effects are positive, we can conclude that RTC represents "complementary mediation" of the relationship from LB to CE (Hair et al., 2022, p. 243).

Our findings empirically support the mediating role of response to change in our leadership and change model. More precisely, the relationship between leaders' behavior and change effectiveness is mediated by followers' responses to change. Leaders' behavior, such as effective communication, being supportive and attentive to recipients' concerns, and involving followers improves followers' response to change which in turn improves the effectiveness of change implementation. This is supported by the findings of Huy (2002), which indicate that organizational change implementation is facilitated when leaders attend to their followers' emotions. Huy et al (2014) also noted that communicating well and involving followers in defining the change content enhances both their legitimacy judgment of their leaders and emotional reactions to change, which also strengthens the effective implementation of change. On the other hand, employees' legitimacy judgment of their leaders diminishes, and they display negative emotional reactions to change when their

leaders fail to honor their promises. This leads to stiff resistance to change and, hence, the eventual failure of the change program. In another study, Bartunek (1984) proposes that the behaviors of organizational members and their emotional responses to change mediate leaders' influence on change. Correspondingly, Graebner (2004) suggested that for change to be successfully implemented, it is critical for leaders to manage the emotions of their followers effectively. The results of Jones and Van de Ven (2016) also indicated that the relationship between supportive leadership and perceived organizational effectiveness was mediated by attitudinal resistance to change such that supportive leadership greatly impacts resistance to change, leading to improvements in organizational effectiveness. Khaw et al. (2023) similarly argued that leaders' role is crucial in successful change implementation since leaders can inspire employees, enhance motivation, and communicate the need for change while minimizing negative reactions. They also emphasize that effective leadership is critical in fostering a sense of empowerment among individuals, enabling them to adapt to or embrace the changes happening within the organization.

3.4.4. Moderation Analysis

H4 evaluates whether leaders' behavior will moderate the relationship between employees' dispositional resistance to change and their responses to change such that the relationship will be weaker in the face of positive leader behaviors such as effective communication, being supportive and attentive to recipients' concerns, and involving followers.

Table 12: Summary of the Moderation Results

Hypothesis	Relationship	Beta Coefficient	Standard deviation (STDEV)	P values	Decision
	DRTC -> RTC	0.503	0.053	0.000	
H4	LB x DRTC -> RTC	-0.050	0.068	0.463	Not Supported

It can be seen from Table 10 that while the simple effect of DRTC on RTC is 0.503, the interaction term (LB x DRTC) has a negative influence on RTC (-0.050). Taken together, these findings imply that the relationship between DRTC and RTC is 0.503 for an average level of leaders' positive behavior. For higher levels of positive leader behaviors (e.g. one standard deviation unit increase in LB), the relationship between DRTC and RTC decreases by the size of the interaction term (i.e., 0.503 – 0.050 = 0.453). Conversely, the relationship between DRTC and RTC increases by the size of the interaction term (i.e., 0.503 + 0.050 = 0.553) for lower levels of positive leader behaviors (e.g. one standard deviation unit decrease in LB). However, Table 10 also indicates that the moderating effect denoted by LB x DRTC -> RTC is insignificant ($p > 0.05$). Thus, hypothesis four is not supported. Therefore, we can conclude that the results do not support the moderating role of leaders' behavior on the relationship between dispositional resistance to change and followers' response to change.

To better analyze these results, it will be good to dissect them. For a start, although not hypothesized, the results indicate a positive relationship between followers' dispositional resistance to change and their response to change. Previous studies (e.g. Lau & Woodman, 1995; Oreg, 2003; Nov & Ye, 2008; Oreg, 2006; Oreg & Berson, 2011) also had similar findings. This result is also supported by dispositional resistance theory, which posits that people differ in the extent to which they are mentally 'disposed' to either accept or resist change. As a result, people who are "[highly] dispositionally resistant to change" are less likely to undertake changes deliberately and more prone to develop unfavorable attitudes towards the changes they face (Oreg et al, 2008, p. 936).

A couple of reasons could explain the non-significance of the moderating effect of leaders' behavior. One, even though employee involvement and a participative leadership style are typically seen as being necessary for successful change (Oreg et al, 2011), they need to be tailored to the context of change rather than applied indiscriminately, and to do so, leaders must comprehend the current situation and its preparedness for change (Burnes, 2017). It is possible that leaders of these higher education institutions of the Gambia were neither prepared nor understood the situation because the COVID-19 pandemic was unpredictable and forced many unplanned changes to the traditional nature of work and business all over the world. People had to react to the situations as they unfolded. These unplanned disruptions

caught leaders of these institutions off guard and, thus, could not properly tailor their leadership style to the situation. Secondly, it is argued that an individual's relationship with the change agent can moderate their response to change. People with a favorable perception of the change agent would be less inclined to resist the change irrespective of their dispositional resistance level (Oreg & Sverdlik, 2011). It is possible that employees of these higher education institutions, in general, do not hold a favorable perception of their leaders, and thus, the inability of the good behaviors of their leaders to dampen the positive relationship between their dispositional resistance to change and their response to change. It is also important to note that only three institutions were included in our sample, and thus, the statistical power of our tests is limited. Therefore, it is wise only to draw tentative conclusions from this nonsignificant finding, and those conclusions should be treated with caution. The result can be significant if the sample size is increased or if more institutions are included in the sample selection.

3.4.5. The Model's Explanatory Power

A model's explanatory power is determined by how well it fits the available data by measuring the degree of association that the PLS path model indicates (Shmueli et al., 2016). The coefficient of determination (R^2) value is the widely used metric for assessing the explanatory power of a structural model. The R^2 value ranges from 0 to 1, where higher values signify greater explanatory strength (Hair et al., 2022). Values of 0.75, 0.50, and 0.25, respectively, describe substantial, moderate, and weak levels of explanatory or predictive accuracy (Henseler et al., 2009; Hair, et al., 2011). It is worth noting that the acceptable threshold for R^2 varies depending on the context; in certain fields, an R^2 value as low as 0.10 is deemed satisfactory. Moreover, the R^2 value is influenced by the number of predictor constructs; as the number of predictor constructs increases, the R^2 value also tends to rise (Hair et al., 2022). The R^2 values of the two endogenous latent variables of change effectiveness (CE) and Resistance to Change (RTC) are reported in Table 11. The R^2 value CE (0.315) can be considered moderate, whereas the R^2 value of RTC (0.266) is rather weak. However, both can be considered satisfactory as they are both above the minimum value of 0.10 and thus support the model's explanatory power.

Table 13: R-Square

	R-square	R-square adjusted
CE	0.315	0.309
RTC	0.266	0.256

Cohen's f^2 was used to determine the effect size, assessing the changes in R^2 when a specific endogenous construct is removed from the model. For instance, if the removal of a construct results in a significant decrease in the R^2 value of the endogenous construct, it indicates that the predecessor construct has a considerable impact (Hair et al., 2022). As a rule of thumb, values higher than 0.02, 0.15, and 0.35 depict small, medium, and large f^2 effect sizes (Cohen, 1988). When the effect size value is below 0.02, "there is no measurable effect" (Hair et al., 2022, p. 195). However, Aguinis et al. (2005) have demonstrated that the typical effect size in moderation tests averages merely 0.009. In light of this, Kenny (2018) suggests that, for small, medium, and high impact sizes, respectively, 0.005, 0.01, and 0.025 represent more realistic thresholds. However, he also notes that considering the review of Aguinis et al. (2005), even these values are optimistic.

The f^2 values for every combination of exogenous (predictor) constructs and corresponding endogenous constructs, as well as the test of moderation, are presented in Table 12. The results indicate that DRTC has a large effect size of 0.337 on RTC. LB also has a large effect size of 0.373 on CE but a small effect size of 0.039 on RTC. RTC has a small effect size of 0.045 on CE. Finally, considering the moderation test, the interaction term LB x DRTC has a small effect size of 0.004 on RTC.

Table 14: f-square

	f-square
DRTC -> RTC	0.337
LB -> CE	0.373
LB -> RTC	0.039
RTC -> CE	0.045
LB x DRTC -> RTC	0.004

3.4.6. The Model's Predictive Power

Finally, we used PLSpredict to assess the model's predictive power, and the results are reported in Table 13. We first check the Q^2predict values, and all the Q^2predict values shown in Table 13 are greater than zero, suggesting our model has predictive power. We then compare the RMSE values to confirm if PLS-SEM_RMSE is less than LM_RMSE. We use RMSE because the prediction errors shown in Appendix N are distributed symmetrically. For Table 13, the RMSE values for the PLS-SEM are all less than the RSME values for the LM for all our indicators. Thus, our results suggest that our model has high predictive power or relevance. This means that our results can be generalized with more confidence and, hence, very relevant for managerial decision-making.

Table 15: PLSpredict Results Report

	Q^2predict	PLS-SEM_RMSE	PLS-SEM_MAE	LM_RMSE	LM_MAE
CE1	0.274	0.856	0.674	0.868	0.683
A	0.198	0.900	0.693	0.900	0.704
B	0.170	0.915	0.720	0.922	0.721
C	0.132	0.936	0.706	0.950	0.713

4. CONCLUSIONS, IMPLICATIONS, AND LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

4.1. Conclusion

This dissertation set out to investigate the impact of change-related leader behaviors on dispositional resistance to change and the overall response to organizational changes triggered by the COVID-19 pandemic within higher educational institutions in The Gambia. The study was motivated by the unprecedented disruption caused by the pandemic, which required higher education institutions worldwide, including those in The Gambia, to implement rapid and large-scale changes to their mode of operation. Understanding how leaders of these institutions influence employees' response and adaptability during such crises is critical for ensuring institutional resilience and long-term sustainability.

A cross-sectional survey method was used to collect primary data with the help of a self-administered questionnaire to achieve the study's objective. The data was analyzed with the help of SmartPLS 4.1.0.0 using partial least squares structural equation modeling (PLS-SEM). First, the data was thoroughly cleaned to ensure no missing or extreme values. The data distribution was then assessed to ensure that all the variables were normally distributed. After confirming the normality of the data distributions, the measurement model was evaluated to assess the quality of the constructs. The quality criteria assessment starts with evaluating the factor loadings, followed by construct reliability and construct validity. All quality criteria were assured before assessing the structural model. After a satisfactory measurement model assessment, the structural model was then assessed for collinearity issues, followed by an assessment of the significance and relevance of the structural model relationships. Finally, the model's explanatory and predictive powers were assessed. No collinearity issues were identified, and the model has good explanatory and predictive powers. The study reveals several key findings.

Firstly, the results confirm and support our expectation that leaders who exhibit communicative, supportive, and participatory behaviors are more likely to achieve successful change outcomes. Precisely, leaders' behaviors, such as effective communication, being supportive and attentive to recipients' concerns, and involving followers, were found to influence change effectiveness positively. This finding aligns with existing literature

highlighting the importance of positive leader behaviors in managing change effectively and ensuring success in the overall change initiatives (e.g. Beatty & Lee, 1992; Errida & Lotfi, 2021; Grutterink & Kolk, 2012; Higgs & Rowland, 2005,2011; Stefanie & Stefan, 2018; Waldman et al., 2001).

The results also underscore the significant role of change-related leader behaviors in shaping employee responses to change. It confirmed that leaders who demonstrated communicative, supportive, and participatory behaviors were more effective in mitigating resistance and fostering a more positive response to change. Specifically, leaders who communicate effectively, are more supportive and attentive to their followers' concerns, and actively involve their followers in decision-making were found to positively influence higher educational institutions' employees' response to change. Conversely, leaders who exhibit ineffective communication and non-supportive and authoritarian behaviors aggravate resistance and reduce followers' openness to change initiatives. This result is consistent with the broader literature on leadership and change management, which highlights the critical role of positive leader behaviors in enhancing followers' response to change (e.g. Albrecht et al., 2020; Bayraktar & Jiménez, 2020; Buchanan & Boddy, 1992; Burnes & Jackson, 2011; Busari et al., 2019; Faupel, & Süß, 2019; Helpap, 2015; Hon et al, 2014; Huy et al., 2014; Khan, et al., 2018; Peng, et al., 2021; Van de Ven, 2016). It also aligns with resistance to change theories such as cognitive dissonance theory, the depth of intervention theory, and psychological contract theory.

Also, our findings empirically support the mediating role of response to change in our leadership and change model. More precisely, followers' response to change mediates the relationship between leaders' behavior and change effectiveness. In other words, when leaders communicate the necessity of change clearly, provide support, and involve followers in the change process, followers are more likely to respond positively to the change, thus increasing the likelihood of successful change outcomes. On the other hand, when leaders fail to communicate the need for the change effectively, fail to address followers' concerns, or do not effectively involve them in the change process, followers are more likely to exhibit resistance, which hinders the overall success of the change effort. Again, this result lends support to the findings of previous studies such as Bartunek (1984), Graebner (2004), Huy

(2002), Huy et al (2014), Jones and Van de Ven (2016), and Khaw et al. (2023). It is important to emphasize that while positive leader behaviors are crucial for guiding and facilitating change, the ultimate success of change initiatives depends mainly on how followers respond to these efforts. Positive follower responses enhance the likelihood of successful change outcomes, while negative responses can undermine even the most well-intentioned leadership behaviors. Therefore, leaders of higher educational institutions in the Gambia must adopt a holistic approach to change management that focuses on their behaviors and actively engages and supports followers throughout the change process. By fostering positive responses to change, leaders of these institutions can maximize the effectiveness of their change initiatives, ensuring that the institutions remain adaptable and resilient in the face of rapid and large-scale organizational change. They must recognize that their influence on change effectiveness largely depends on their ability to manage and shape followers' responses to change. Thus, they must be adept at leading the change and their followers through the emotional and psychological complexities of the change process.

Moreover, although not hypothesized, as expected, the relationship between followers' dispositional resistance to change and their response to change was positive and significant. Previous studies (e.g. Lau & Woodman, 1995; Nov & Ye, 2008; Oreg, 2003; Oreg, 2006; Oreg & Berson, 2011) also had similar findings, and the dispositional resistance theory supports the result. This demonstrates that followers' dispositional resistance to change is crucial in shaping their responses to organizational change initiatives. Individuals with high dispositional resistance are more likely to exhibit negative cognitive, emotional, and behavioral responses to change. In contrast, those with lower dispositional resistance are more inclined to engage positively with change efforts. This finding underscores the importance of recognizing that change responses are not only influenced by external factors, such as leaders' behavior but also by internal factors—most notably, an individual's dispositional tendency toward change resistance. Therefore, it is essential for leaders of higher educational institutions in the Gambia to consider individual personality traits when designing and implementing organizational change strategies. They should understand that when they tailor their approaches to address followers' dispositional tendencies and foster a

culture of resilience, they are more likely to succeed in achieving effective and sustainable change within their organizations.

Finally, one of the hypotheses (4) was not supported. Contrary to our expectations, the results do not provide support for the moderating role of leaders' behavior on the relationship between dispositional resistance to change and followers' response to change. This could be because leaders could not tailor their behavior to the change context. After all, they were neither prepared for the change nor comprehended the situation due to its unplanned nature (Burnes, 2017). It could also be because our statistical power is limited since only three institutions were included in the sample. Thus, only tentative conclusions should be drawn from this nonsignificant finding.

4.2. Theoretical Implications

We believe that our study provides numerous noteworthy theoretical contributions. Firstly, although leaders' behavior is frequently studied in the context of organizational change in the literature, organizational scholars mainly depend on broad leadership concepts, which consist of several unique components that are combined to form a single leadership construct instead of focusing on specific 'change-related behaviors (Van Knippenberg & Sitkin, 2013; Oreg & Berson, 2019). In addition, there is a lack of clear differentiation among many of these overarching leadership concepts (e.g. transformational, servant, ethical, authentic; Hoch et al., 2016). These make it difficult to distinguish among the relevant leaders' behaviors embedded in these broad leadership concepts, which are key in facilitating effective change implementation. On the contrary, by focusing on 'specific change-related' leaders' behaviors, such as effective communication, being supportive and attentive to recipients' concerns, and involving followers, this study has started the process of filling the conceptual gap in the literature.

Another very important novelty of this study is the fact that, to the best of our knowledge, it is the first study to have conceptualized the dispositional resistance to change theory by looking at the moderating role of leaders' behavior on the relationship between dispositional resistance to change and followers' response to change in the context of unplanned change, particularly in a pandemic situation. The only other study that had previously conceptualized

dispositional resistance theory in this way was conducted by Oreg and Berson (2011). However, that study focused on a large-scale organizational change in the Israeli public school system. However, their study was conducted in a planned change situation. Although the interaction term was not significant, possibly due to low statistical power, this is a good starting point on which future studies could be built.

Also, our study focused on a change conducted in highly comparable organizations by focusing on only higher education institutions in the Gambia. Oreg and Berson (2011) argued that previous studies either focused on changes within a single organization or on multiple organizations that are less comparable because they differ in structure, sector, or type and "each organization initiated a different change, and data were often collected at different stages of the change process" (Caldwell et al., 2004; Fedor et al., 2006; Herold et al., 2007 as cited in Oreg & Berson, 2011, p. 650). Since our study focused on the same type of organizations that initiated the exact change simultaneously, several threats of confounding that frequently occur in organizational studies were eliminated by our design.

4.3. Practical Implications

The results of this study might provide several practical implications for the leaders of organizations, especially educational institutions. First, the study demonstrated that positive leaders' behaviors, such as effective communication, being supportive and attentive to recipients' concerns, and involving followers, are key to the effective implementation of organizational change. These results could increase leaders' awareness of the importance of these behaviors, especially during change. Hence, this will make leaders pay more attention to how they behave during change implementation. Moreover, for effective change implementation, leaders may be trained on how to effectively communicate the change message and the importance of change to their followers. Leaders could also be trained on how to support and be more attentive to the needs of their followers during change as well as involve their followers in the decision-making process during change. Thus, the study also provides positive implications for leadership development programs. Such programs should include modules that highlight the importance of effective communication, supporting and paying attention to followers' needs, and involving followers in decision-making.

Secondly, knowing that followers' response to change mediate the relationship between leaders' behavior and change effectiveness indicates that change agents should pay more attention to the reaction of their followers. Leaders should ensure that the positive reactions of their followers during change are reinforced and the negative ones reduced or eliminated to effectively implement the change. Also, by increasing the awareness of leaders of the importance of their behavior to the change process and its implications on the reactions of their followers to the change, leaders will pay more attention to how their followers respond to change and thus manage those reactions more effectively which in turn may lead to better implementation of the change.

Finally, our findings also reveal that followers' personality, particularly their dispositional resistance to change, positively influences their response to change. Thus, to support followers who are dispositionally resistant to change, human resources (HR) departments should initiate mentorship and training programs to prepare these followers better to cope with the challenges they could encounter during periods of change. They should make these individuals view change as an opportunity for growth, adaptation, and improvement. The training should not be limited to the followers. However, leaders should also be trained on how to mentor and support their followers to effectively cope with changes by providing them with both emotional support and personal guidance. Also, as suggested by Oreg and Berson (2011), leaders should also try to identify followers with lower dispositional resistance to change who are more receptive to change and motivate them to support other followers with higher dispositional resistance who struggle with adapting to the change. These might reduce the dispositional resistance levels of followers, which in turn could improve their response to change and thus lead to the effective implementation of the change.

4.4. Limitations and Directions for Future Research

Although the study provides interesting contributions both theoretically and practically, it is not without limitations. One of the study's limitations is the confidence level in the generalizability of the results. This is because judgment sampling, a non-probability sampling technique, was used in this study. Only public higher education institutions were included in the sample, and even so, only academic staff were selected as respondents because administrative staff were unaffected by the change. In addition, there was only a

moderate response rate of 55% to the questionnaire. Hence, the generalizability of the findings might be limited. In other words, we cannot confidently generalize the study's findings to all higher education institutions in the Gambia or other institutions in or outside of the education sector in the Gambia. So, for future research, it would be great if a probability sampling technique could be utilized to improve the external validity. Moreover, before our results can be conclusively generalized, more studies need to be conducted in other sectors and countries with different cultural settings.

Secondly, this study is a cross-sectional design because data is collected once over several months between April 2023 and November 2023, raising significant concerns about the direction of casualty (Lazarus, 2003 as cited in Agote, et al., 2016). Given that the responses involve recalling past experiences, emotions, and thoughts, memory bias could potentially amplify the findings and taint the stated relationships with reverse causality (Agote et al., 2016). To help address this, in future research, a longitudinal design should be used by collecting data at different stages of the change process encompassing periods before, during, and after the change because followers' reactions to the change might vary at different stages of the change.

Moreover, like many previous studies, the current study uses quantitative methodologies. For future research, it would be good to combine quantitative and qualitative methods in a single study in order to use findings from the qualitative study to triangulate the results of the quantitative study. The additional qualitative research on leaders' behaviors during periods of change could also yield valuable insights into the specific mechanisms by which leaders impact organization members and outcomes. Integrating these approaches could also help bridge existing gaps between "disciplines, methods, and levels of analysis," enhancing "our understanding of the impact of leaders on organizational change" (Oreg & Berson, 2019, p. 50). Similarly, while the studies we examined focused on two levels of analysis, including the current study, there is a lack of research undertaken at three levels of analysis, which includes both top-level leaders (such as CEOs) and leaders of organization units (specifically, middle managers), along with individual-level elements. This research can illustrate the trickle-down mechanisms (Liu et al., 2012) that operate from senior change leaders to middle managers and ultimately to employees.

Furthermore, despite recognizing ambivalent reactions to change almost two decades ago (Piderit, 2000), limited research has explored individuals' potential to display both positive and negative responses simultaneously. However, there are a few exceptions, such as the studies conducted by Oreg and Sverdlik (2011) and Randall and Procter (2008). None of the research we encountered in our review examined the influence of leadership on the experience of ambivalence about change. Therefore, a crucial area for future investigation is to explore a far more comprehensive array of potential reactions to change. In addition, the present study only focuses on leaders' impact on recipients' response to change but leaves out the reciprocal influence of change recipients on change leaders. Like this study, most research on leadership and change focuses on how leaders influence their followers. However, even when the leader initiates change, reciprocal routes of influence still exist between leaders and followers (Oreg & Berson, 2019). Therefore, it will be essential for future research to focus on explicitly delineating the bi-directional link between leaders' behavior and followers' response to change.

Another avenue for future research entails a more intricate conceptualization of how change recipients respond to change. Overall, regardless of leadership styles and study approaches, it is evident that leaders can impact organizational change by promoting more favorable and less unfavorable reactions to the change. These effects have been observed in change recipients' emotions, attitudes, and behaviors. However, per recent critiques of the study on responses to change (Oreg et al., 2018), the treatment of these responses is oversimplified, categorizing them as either negative or positive. This approach fails to acknowledge the intricacy that defines reactions to change. In addition to the emotional intensity of individuals' reactions to change, their responses also differ in terms of their level of activation (Oreg et al., 2018). Thus, both positive and negative reactions to change encompass a range of responses that vary significantly in nature and their causes and outcomes. For instance, while "both stress and melancholy are negative emotions, and both enthusiasm and contentment are positive emotions," the leadership behaviors that trigger each emotion may vary considerably (Oreg & Berson, 2019).

REFERENCES

Aboramadan, M., & Kundi, Y. M. (2020). Does transformational leadership better predict work-related outcomes than transactional leadership in the NPO context? Evidence from Italy. Voluntas: International Journal of Voluntary & Nonprofit Organizations, 31(6), 1254–1267.

Agote, L., Aramburu, N., & Lines, R. (2016). Authentic leadership perception, trust in the leader, and followers' emotions in organizational change processes. Journal of Applied Behavioral Science, 52(1), 35-63.

Aguinis, H., Beaty, J. C., Boik, R. J., & Pierce, C. A. (2005). Effect size and power in assessing moderating effects of categorical variables using multiple regression: a 30-year review. *Journal of Applied Psychology*, *90*(1), 94.

Albrecht, S. L., Connaughton, S., Foster, K., Furlong, S., & Yeow, C. J. L. (2020). Change engagement, change resources, and change demands: A model for positive employee orientations to organizational change. *Frontiers in Psychology*, *11*, 531944.

Ali, F., Rasoolimanesh, S.M., Sarstedt, M., Ringle, C. & Ryu, K. (2017). An assessment of the use of partial least squares structural equation modeling (PLS-SEM) in hospitality research, *International Journal of Contemporary Hospitality Management*, available at: https://doi.org/10.1108/IJCHM-10-2016- 0568

Amiot, C. E., Terry, D. J., Jimmieson, N. L., & Callan, V. J. (2006). A longitudinal investigation of coping processes during a merger: Implications for job satisfaction and organizational identification. *Journal of Management*, *32*(4), 552–574.

Asencio, H., & Mujkic, E. (2016). Leadership behaviors and trust in leaders: Evidence from the U.S. Federal Government. Public Administration Quarterly, 40(1), 156-179.

Ashford, S. J. (1988). Individual strategies for coping with stress during organizational transitions. *The Journal of Applied Behavioral Science*, *24*(1), 19–36.

Avolio, B. J., & Bass, B. M. (2002). Developing potential across a full range of leadership TM: Cases on transactional and transformational leadership. Psychology Press. https://ncat.on.worldcat.org/search?queryString=transactional+leadership+#/oclc/498519 18

Axtell, C., Wall, T., Stride, C., Pepper, K., Clegg, C., Gardner, P., & Bolden, R. (2002). Familiarity breeds content: The impact of exposure to change on employee openness

and well-being. *Journal of occupational and organizational psychology*, *75*(2), 217–231.

Azanza, G., Moriano, F., & Moriano, J.A. (2013). Authentic leadership and organizational culture as drivers of employees' job satisfaction. Revista De Psicologia Del Trabajo Y De Las Organizaciones, 29(2), 45-50.

Bagga, S. K., Gera, S., & Haque, S. N. (2023). The mediating role of organizational culture: Transformational leadership and change management in virtual teams. *Asia Pacific Management Review*, *28*(2), 120-131.

Bagozzi, R. P., Yi, Y., & Phillips, L. W. (1991). Assessing construct validity in organizational research. *Administrative Science Quarterly*, 421– 458.

Barnett, D. (2017). Leadership and job satisfaction: Adjunct faculty at a for-profit university. Journal of Psychology and Educational Studies, 4(3), 53-63. https://www.ijpes.com/frontend//articles/pdf/v4i3/v04-i03-06pdf.pdf

Bartlem, C. S., & Locke, E. A. (1981). The Coch and French study: A critique and Reinterpretation. *Human Relations*, *34*(7), 555–566.

Bartunek, J. M. (1984). Changing interpretive schemes and organizational restructuring: The example of a religious order. Administrative Science Quarterly, 29(3), 355-372.

Bass, B. M. (1985). Leadership and performance beyond expectations. New York; London: Free Press; Collier Macmillan.

Bass, B. M. (2008). *The Bass Handbook of Leadership: Theory, research, and managerial applications* (4th ed.). New York, NY, USA: The Free Press.

Bass, M. B. & Bass, R. (2008). The Bass handbook of leadership: Theory, research, and managerial applications. The Free Press.

Bass, M. B. & Riggio, R. E. (2006). Transformational leadership. Psychology Press.

Bass, M. B. (1985). Leadership and performance beyond expectations. The Free Press.

Bastien, D. T. (1987). Common patterns of behavior and communication in corporate mergers and acquisitions. Human Resource Management, 26(1), 17 – 33.

Battilana, J., Gilmartin, M., Sengul, M., Pache, A.-C., & Alexander, J. A. (2010). Leadership competencies for implementing planned organizational change. The Leadership Quarterly, 21(3), 422-438.

Beatty, C. A., & Lee, G. L. (1992). Leadership among middle managers-An exploration in the context of technological change. Human Relations, 45(9), 957-989.

Bennett, E. B. (1955). Discussion, Decision, Commitment, and Consensus in" Group Decision'". *Human relations*, *8*(3), 251-273.

Bennis, W. (1989). On becoming a leader. New York: Addison-Wesley Publishing Company.

Bennis, W. (1997). The secrets of great groups. *Leader to leader*, *1997*(3), 29–33.

Bennis, W., & Nanus, B. (1985). The strategies for taking charge. *Leaders, New York: Harper. Row*, *41*.

Benoliel, P., and Somech, A. (2014). The health and performance effects of participative leadership: exploring the moderating role of the big five personality dimensions. Eur. J. Work Organ. Psychol. 23, 277–294. doi: 10.1080/ 1359432X.2012.717689

Berlew, D. E., & Heller, D. (1983). Style flexibility-tools for successful leaders. Legal Economics, 9 (6), 34–37.

Bhattacherjee, A. (2012). *Social Science Research: Principles, Methods, and Practices* (2nd ed.). Textbooks Collection. Book 3. http://scholarcommons.usf.edu/oa_textbooks/3

Blomberg, S. (2022). *Beware of Non-Supportive Leaders: Moderating Effects of Supportive Leadership on the Risks and Effects of Workplace Bullying* (Doctoral dissertation, Linköping University Electronic Press).

Bommer, W. H., Rich, G. A., & Rubin, R. S. (2005). Changing attitudes about change: Longitudinal effects of transformational leader behavior on employee cynicism about organizational change. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *26*(7), 733-753.

Bordia, P., Hunt, E., Paulsen, N., Tourish, D., & DiFonzo, N. (2004). Uncertainty during organizational change: Is it all about control? *European Journal of Work and Organizational Psychology*, *13*(3), 345–365.

Bovard, E. W. (1951a). Group structure and perception. Journal of Abnormal and Social Psychology, 46, 398–405.

Bovard, E. W. (1951b). The experimental production of interpersonal affect. Journal of Abnormal and Social Psychology, 46, 521–528.

Brockner, J., Konovsky, M., Cooper Schneider, R., & Folger, R. (1994). Interactive effects of procedural justice and outcome negativity on victims and survivors of job loss. Academy of Management Journal, 37(2), 397-409.

Buchanan, D. A., & Boddy, D. (1992). The expertise of the change agent: public performance and backstage activity. *(No Title)*.

Burnes, B., & Jackson, P. (2011). Success and failure in organizational change: An exploration of the role of values. *Journal of Change Management*, *11*(2), 133-162.

Burns, J. M. (1978). Leadership. Harper & Row.

Caldwell, S. D., Herold, D. M., & Fedor, D. B. (2004). Toward an understanding of the relationships among organizational change, individual differences, and changes in person-environment fit: a cross-level study. *Journal of Applied Psychology*, *89*(5), 868.

Chan, S. (2019). Participative leadership and job satisfaction: the mediating role of work engagement and the moderating role of fun experienced at work. Leadersh. Organ. Dev. J. 40, 319–333. doi: 10.1108/LODJ-06-2018-0215

Chung, S.-H., Su, Y.-F., & Su, S.-W. (2012). The impact of cognitive flexibility on resistance to organizational change. Social Behavior and Personality: An International Journal, 40, 735-745.

Coch, L., & French Jr, J. R. (1948). Overcoming resistance to change. *Human relations*, *1*(4), 512–532.

Coch, L., & French, J. R. P., Jr. (1948). Overcoming resistance to change. Human Relations, 1, 512 – 532.

Cohen J. (1988) *Statistical Power Analysis for the Behavioral Sciences*: Lawrence Erlbaum Associates.

Conger, J. A. (2000). The vision thing: Explorations into visionary leadership. In Kellerman, B., & Matusak, L. (eds.), Cutting edge: Leadership 2000. Center for the Advanced Study of Leadership, University of Maryland.

Coyle-Shapiro, J. A. M. (2002). A psychological contract perspective on organizational citizenship behavior. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *23*(8), 927–946.

Coyle-Shapiro, J. A.-M., & Morrow, P. C. (2003). The role of individual differences in employee adoption of TQM orientation. Journal of Vocational Behavior, 62, 320–340.

Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological bulletin*, *52*(4), 281.

Currie, G., Lockett, A., & Suhomlinova, O. (2009). Leadership and institutional change in the public sector: The case of secondary schools in England. *The Leadership Quarterly*, *20*(5), 664–679.

Currie, G., Lockett, A., & Suhomlinova, O. (2009). Leadership and institutional change in the public sector: The case of secondary schools in England. The Leadership Quarterly, 20(5), 664–679.

Daly, J. P., & Geyer, P. D. (1994). The role of fairness in implementing large-scale change: Employee evaluations of process and outcome in seven facility relocations. *Journal of Organizational Behavior*, *15*(7), 623-638.

Detert, J. R. (2003). *To speak or not to speak: Multi-level leadership influences on organizational voice*. Harvard University.

DiFonzo, N., & Bordia, P. (1998). A tale of two corporations: Managing uncertainty during organizational change. Human Resource Management, 37, 295 – 303.

DiFonzo, N., & Bordia, P. (2002). Corporate rumor activity, belief, and accuracy. Public Relations Review, 28, 1 – 19.

DiFonzo, N., Bordia, P., & Rosnow, R. L. (1994). Reining in rumors. Organizational Dynamics, 23, 47 – 62.

Dijkstra TK & Henseler J. (2015) Consistent Partial Least Squares Path Modeling. *MIS Quarterly* 39(2): 297-316.

Dogan, B., & Yildiz, B. (2023). The correlation between leadership styles and organizational cynicism: Which leadership style is best for schools? International Journal of Education and Literacy Studies, 11(4), 343-352.

Dugan, J. (2017). Leadership theory: Cultivating critical perspectives. San Francisco, CA: Jossey-Bass Publishers.

Dutton, J. E., Ashford, S. J., O'Neill, R. M., & Lawrence, K. A. (2001). Moves that matter: Issue selling and organizational change. Academy of Management Journal, 716–736.

Errida, A., & Lotfi, B. (2021). The determinants of organizational change management success: Literature review and case study. *International Journal of Engineering Business Management*, *13*, 18479790211016273.

Evermann, J., & Tate, M. (2016). Assessing the predictive performance of structural equation model estimators. *Journal of Business Research, 69*(10), 4565-4582.

Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling*. University of Akron Press.

Faupel, S., & Süß, S. (2019). The effect of transformational leadership on employees during organizational change–an empirical analysis. *Journal of Change Management*, *19*(3), 145-166.

French Jr, J. R., Kay, E., & Meyer, H. H. (1966). Participation and the appraisal system. *Human Relations*, *19*(1), 3-20.

Gagnon, M. A. & Michael, J. H. (2004). Outcomes of perceived supervisor support for wood production employees. Forest Products Journal, 54, 172-17.

Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika, 61*(1), 101-107.

George, D., & Mallery, P. (2019). *IBM SPSS statistics 26 step by step: A simple guide and reference*. Routledge.

Gilbert, P., & Basran, J. (2019). The evolution of prosocial and antisocial competitive behavior and the emergence of prosocial and antisocial leadership styles. Frontiers in Psychology, 10, 610. https://doi.org/10.3389/fpsyg.2019.00610

Graebner, M. E. (2004). Momentum and serendipity: How acquired leaders create value in the integration of technology firms. Strategic Management Journal, 25(8W9), 751-777.

Griffin, M. A., Parker, S. K., & Mason, C. M. (2010). Leader vision and the development of adaptive and proactive performance: a longitudinal study. Journal of Applied Psychology, 95(1), 174.

Groves, K. S. (2005). Linking leader skills, follower attitudes, and contextual variables via an integrated model of charismatic leadership. Journal of Management, 31(2), 255–277.

Hair JF, Ringle CM & Sarstedt M. (2011) PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice* 19(2): 139-151.

Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European business review*.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), 3rd ed. Thousand Oaks, CA: Sage.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*.

Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2019) Multivariate Data Analysis. 8th Edition, Pearson, Upper Saddle River.

Hare, A. P. (1953). Small group discussions with participatory and supervisory leadership. Journal of Abnormal and Social Psychology, 48, 273–275.

Hargie, O., & Tourish, D. (2000). Charting communication performance in a healthcare organization, In O. Hargie & D. Tourish (Eds.), Handbook of communication audits for organizations (pp. 195 – 209). London: Routledge.

Helm, S., Eggert, A. & Garnefeld, I. (2009). Modelling the impact of corporate reputation on customer satisfaction and loyalty using PLS, in Esposito, V.V., Chin, W.W., Henseler, J. and Wang, H. (Eds), Handbook of Partial Least Squares: Concepts, Methods, and Applications, Springer, Berlin.

Helmich, D. L. (1975). Corporate succession: An examination. Academy of Management Journal, 18(3), 429-441.

Helpap, S. (2016). The impact of power distance orientation on recipients' reactions to participatory versus programmatic change communication. The Journal of Applied Behavioral Science, 52(1), 5–34.

Henseler J, Ringle CM & Sarstedt M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-based Structural Equation Modeling. *Journal of the Academy of Marketing Science* 43(1): 115-135.

Henseler J, Ringle CM & Sinkovics RR. (2009) The Use of Partial Least Squares Path Modeling in International Marketing. In: Sinkovics RR and Ghauri PN (eds) *Advances in International Marketing. Bingley*: Emerald 277-320.

Hickman, G. R. (2016). Leading organizations: Perspectives for a new era. Sage Publications.

Higgs, M. J., & Rowland, D. (2005). All changes great and small: Exploring approaches to change and its leadership. Journal of Change Management, 5, 121–151.

Higgs, M., & Rowland, D. (2011). What does it take to implement change successfully? A study of the behaviors of successful change leaders. *The Journal of Applied Behavioral Science, 47*(3), 309–335.

Hoch, B., & Bommer, J. D. Wu. (2016). Do Ethical, Authentic, and Servant Leadership Explain Variance Above and Beyond Transformational Leadership? A Meta-Analysis. *Journal of Management*, *44*.

Holt, D. T., Armenakis, A. A., Feild, H. S., & Harris, S. G. (2007). Readiness for organizational change: The systematic development of a scale. *The Journal of Applied Behavioral Science, 43*(2), 232-255.

Hon, A. H., Bloom, M., & Crant, J. M. (2014). Overcoming resistance to change and enhancing creative performance. Journal of Management, 40(3), 919-941.

House, R. J. & Mitchell, T. R. (1974). Path-goal theory of leadership. Contemporary Business, 3, 81–98.

House, R. J. (1971). A path-goal theory of leader effectiveness. Administrative Science Quarterly, 16, 321–338.

House, R. J. (1976). A 1976 Theory of Charismatic Leadership. Working Paper Series 76-06.

Huang, X., Iun, J., Liu, A., and Gong, Y. (2010). Does participative leadership enhance work performance by inducing empowerment or trust? the differential effects on managerial and non-managerial subordinates. J. Organ. Behav. 31, 122–143. doi: 10.1002/job.636

Huy, Q. N. (2002). Emotional balancing of organizational continuity and radical change: The contribution of middle managers. *Administrative Science Quarterly, 47*(1), 31–69.

Huy, Q. N., Corley, K. G., & Kraatz, M. S. (2014). From support to mutiny: Shifting legitimacy judgments and emotional reactions impacting the implementation of radical change. Academy of Management Journal, 57(6), 1650-1680.

Jacobson, E., Charters Jr, W. W., & Lieberman, S. (1951). The Use of the Role Concept in the Study of Complex Organizations. *Journal of Social Issues*, *7*(3).

Johnson, C. E. (2018). Meeting the ethical challenges of leadership. Sage Publications.

Johnson, J. R., Bernhagen, M. J., Miller, V., & Allen, M. (1996). The role of communication in managing reductions in work force. Journal of Applied Communication Research, 24, 139 – 164.

Jones, S. L., & Van de Ven, A. H. (2016). The changing nature of change resistance: An examination of the moderating impact of time. *The Journal of Applied Behavioral Science*, *52*(4), 482-506.

Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The forgotten ones? The validity of consideration and initiating structure in leadership research. Journal of Applied Psychology, 89, 36–51.

Kahai, S. S., Sosik, J. J., & Avolio, B. J. (1997). Effects of leadership style and problem structure on work group process and outcomes in an electronic meeting system environment. *Personnel Psychology*, *50*(1), 121-146.

Kenny, A. (2018). *An illustrated brief history of Western philosophy*. John Wiley & Sons.

Khaw, K. W., Alnoor, A., Al-Abrrow, H., Tiberius, V., Ganesan, Y., & Atshan, N. A. (2023). Reactions towards organizational change: a systematic literature review. *Current Psychology*, *42*(22), 19137-19160.

Kiefer, T. (2005). Feeling bad: Antecedents and consequences of negative emotions in ongoing change. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *26*(8), 875–897.

Kirimi, David, and Barine, M. (2010). Transformational Corporate Leadership. Andrew UK Ltd. https://ebookcentral-proquestcom.ncat.idm.oclc.org/lib/ncatebooks/reader.action?docID=87952

Kobasa, S.C. & Pucetti, M.C. (1983). Personality and social resources in stress resistance. Journal of Personality and Social Psychology, 45, 839-850.

Kotter, J. P., & Schlesinger, L. A. (1979). Choosing strategies for change. Harvard Business Review, 57(2), 106 – 114.

Kottke, J. L., Sharafinski, C. E. (1988). Measuring perceived supervisory and organizational support. Educational and Psychological Measurement, 48, 1075– 1079.

Kottke, J. L., Sharafinski, C. E. (1988). Measuring perceived supervisory and organizational support. Educational and Psychological Measurement, 48, 1075– 1079.

Kumar-Basu, K. (2015). The leader's role in managing change: Five cases of technology-enabled business transformation. Global Business and Organizational Excellence, 34(3), 28–42. https://doi.org/10.1002/joe.21602

Lam, C. K., Huang, X., and Chan, S. C. H. (2015). The threshold effect of participative leadership and the role of leader information sharing. Acad. Manage. J. 58, 836–855. doi: 10.5465/amj.2013.0427

Larkin, T. J., & Larkin, S. (1994). Communicating change: How to win employee support for new business directions. New York: McGraw-Hill.

Lau, C.-M., & Woodman, R. W. (1995). Understanding organizational change: A schematic perspective. Academy of Management Journal, 38(2), 537 – 554.

Lawler III, E. E. (1986). *High-Involvement Management. Participative Strategies for Improving Organizational Performance*. Jossey-Bass Inc., Publishers, 350 Sansome Street, San Francisco, CA 94104.

Leary, M. R. (2001). *Introduction to Behavioral Research Methods* (3rd ed.). Boston, London, Toronto, Tokyo, Sydney & Singapore: Allyn & Bacon

Levine, J., & Butler, J. (1952). Lecture vs. group decision in changing behavior. *Journal of Applied Psychology*, *36*(1), 29.

Lewin, K. (1947). Group decision and social change (1944). In I. New-comb & E. Hartley (eds.), Readings in social psychology. New York: Holt.

Lewis, L. K., & Seibold, D. R. (1998). Reconceptualizing organizational change implementation as a communication problem: A review of literature and research agenda. In M. E. Roloff (Ed.), Communication yearbook 21 (pp. 93 – 151). Beverly Hills, CA: Sage.

Li, G., Liu, H., & Luo, Y. (2018). Directive versus participative leadership: dispositional antecedents and team consequences. J. Occup. Organ. Psychol. 91, 645–664. doi: 10.1111/joop.12213

Likert, R. (1961a). New patterns of management. New York: McGraw-Hill.

Likert, R. (1961b). An emerging theory of organizations, leadership, and management. In L. Petrullo & B. M. Bass (eds.), Leadership and interpersonal behavior. New York: Holt, Rinehart & Winston.

Litz, D., & Blaik-Hourani, R. (2020). Transformational leadership and change in education. In *Oxford research encyclopedia of education*.

Lüscher, L. S., & Lewis, M. W. (2008). Organizational change and managerial sensemaking: Working through paradox. *Academy of Management Journal*, *51*(2), 221-240.

Martin, A. J., Jones, E. S., & Callan, V. J. (2005). The role of psychological climate in facilitating employee adjustment during organizational change. European Journal of Work and Organizational Psychology, 14, 263-289. Retrieved from http://doi. org/10.1080/13594320500141228

Mathieu, J. E. (1990). A test of subordinates' achievement and affiliation needs as moderators of leader path-goal relationships. *Basic and Applied Social Psychology*, 11, 1791-189.

Meier, R., Ben, E. R., & Schuppan, T. (2013). ICT-enabled public sector organizational transformation: Factors constituting resistance to change. Information Polity, 18, 315-329.

Miller, K. I., & Monge, P. R. (1986). Participation, satisfaction, and productivity: A meta-analytic review. *Academy of Management Journal*, 29, 727–753.

Miller, V. D., Johnson, J. R., & Grau, J. (1994). Antecedents to willingness to participate in a planned organizational change. *Journal of Applied Communication Research*, 22(1), 59 – 80.

Mitchell, L. (2024). *A narrative study on resiliency in leadership based on the theory of transformational leadership* (Order No. 31331323). Available from ProQuest Dissertations & Theses Global. (3083335627). Retrieved from https://www.proquest.com/dissertations-theses/narrative-study-on-resiliency-leadership-based/docview/3083335627/se-2

Nadler, D. A. (1988). Organizational frame bending: Types of change in the complex organization. In R. H. Kilmann & T. J. Covin (Eds.), Corporate transformation: Revitalizing organizations for a competitive world (pp. 66 – 83). San Francisco: Jossey-Bass.

Nanus, B. (1992). Visionary leadership: Creating a compelling sense of direction for your organization. San Francisco: Jossey-Bass Inc., Publishers.

Neal, A. & Griffin, M. A. (2002). Safety climate and safety behavior. Australian Journal of Management, 27, 67–76.

Ng, T. & Sorensen, K. (2008). Toward a further understanding of the relationships between Perceptions of support and work attitudes: A meta-analysis. Group & Organization Management, 33, 243-268.

Nitzl, C., Roldan, J.L. & Cepeda, G. (2016). Mediation analysis in partial least squares path modeling, *Industrial Management & Data Systems*, 116(9), 1849-1864, available at: https://doi.org/ 10.1108/IMDS-07-2015-0302

Nohe, C., & Michaelis, B. (2016). Team OCB, leader charisma, and organizational change: A multilevel study. *The Leadership Quarterly*, *24*(2), 378-389.

Nohe, C., Michaelis, B., Menges, J. I., Zhang, Z., & Sonntag, K. (2013). Charisma and organizational change: A multilevel study of perceived charisma, commitment to change, and team performance. The Leadership Quarterly, 24(2), 378-389.

Northouse, P. (2019). Leadership: Theory and practice. Sage Publications, Inc.

Nov O, Ye C. (2008). Users' personality and perceived ease of use of digital libraries: The case for resistance to change. Journal of the American Society for Information Science and Technology, 59, 845–851.

Nunnally, J. C., & Ira Bernstein (1994). Psychometric Theory, 3d ed., New York: McGraw-Hill.

Onyeneke, G. B., & Abe, T. (2021). The effect of change leadership on employee attitudinal support for planned organizational change. *Journal of Organizational Change Management*, *34*(2), 403-415.

Oreg S, Bayazit M, Vakola M, Arciniega L, Armenakis AA, Barkauskiene R, ... van Dam K. (2008). Dispositional resistance to change: Measurement equivalence and the link to personal values across 17 nations. Journal of Applied Psychology, 93, 935–944.

Oreg, S. (2003). Resistance to change: Developing an individual differences measure. Journal of Applied Psychology, 88(4), 587 – 604.

Oreg, S. (2006). Personality, context, and resistance to organizational change. European Journal of Work and Organizational Psychology, 15, 73–101.

Oreg, S., & Berson, Y. (2011). Leadership and employees' reactions to change: The role of leaders' personal attributes and transformational leadership style. Personnel Psychology, 64, 627–659.

Oreg, S., & Berson, Y. (2019). Leaders' impact on organizational change: Bridging theoretical and methodological chasms. *Academy of Management Annals*, *13*(1), 272–307.

Paglis, L. L., & Green, S. G. (2002). Leadership self-efficacy and managers' motivation for leading change. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *23*(2), 215-235.

Palmer, D. E. (2009). Business leadership: Three levels of ethical analysis. *Journal of Business Ethics*, *88*(3), 525-536.

Pasmore, W. A., & Fagans, M. R. (1992). Participation, individual development, and organizational change: A review and synthesis. Journal of Management, 18, 375–397.

Peng, J., Li, M., Wang, Z., & Lin, Y. (2021). Transformational leadership and employees' reactions to organizational change: evidence from a meta-analysis. *The Journal of applied behavioral science*, *57*(3), 369-397.

Pennington Jr, D. F., Haravey, F., & Bass, B. M. (1958). Some effects of decision and discussion on coalescence, change, and effectiveness. *Journal of Applied Psychology*, *42*(6), 404.

Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *The leadership quarterly*, *1*(2), 107-142.

Preston, M. G., & Heintz, R. K. (1949). Effects of participatory vs. supervisory leadership on group judgment. *The Journal of Abnormal and Social Psychology*, *44*(3), 345.

Proffitt, J. M. (2024). *Chamber of commerce leaders' utilization of transformational leadership for volunteer retention* (Order No. 31141363). Available from ProQuest Dissertations & Theses Global. (3030971775). Retrieved from https://www.proquest.com/dissertations-theses/chamber-commerce-leaders-utilization/docview/3030971775/se-2

Rafferty, A. E., & Griffin, M. A. (2006). Perceptions of organizational change: A stress and coping perspective. Journal of Applied Psychology, 91, 1154. doi:10.1037/0021-9010.91.5.1154

Rasool, U. (2016). The Role of Leadership on Organizational Change. International Journal of Management Sciences and Business Research, 5(11).

Richardson, R., & Denton, D. K. (1996). Communicating change. Human Resource Management, 35(2), 203 – 216.

Ringle, C. M., Wende, S., and Becker, J.-M. (2022). "SmartPLS 4." Oststeinbek: SmartPLS GmbH, http://www.smartpls.com.

Roberts, B. B., & Thorsheim, H. I. (1987). A partnership approach to consultation: The process and results of a major primary prevention field experiment. *Prevention in Human Services*, *4*(3-4), 151-186.

Rost, J. C. (1991). *Leadership for the twenty-first century*. Greenwood Publishing Group.

Rubin, R. S., Dierdorff, E. C., Bommer, W. H., & Baldwin, T. T. (2009). Do leaders reap what they sow? Leader and employee outcomes of leader organizational cynicism about change. The Leadership Quarterly, 20(5), 680-688.

Rubin, R. S., Dierdorff, E. C., Bommer, W. H., & Baldwin, T. T. (2009). Do leaders reap what they sow? Leader and employee outcomes of leader organizational cynicism about change. The Leadership Quarterly, 20(5), 680–688. http://doi.org/10.1016/j.leaqua.2009.06.002

Salancik, G. R. (1977). Commitment and the control of organizational behavior and belief. In B. M. Staw & G. R. Salancik (Eds.), New directions in organizational behavior (pp. 1 - 54). Chicago: St. Clair.

Sashkin, M. (1986). Becoming a visionary leader: A guide for understanding and developing visionary leadership. Published by Organization Design and Development, Inc.

Sashkin, M. (1988). The visionary leader. In J.A. Conger, R.N. Kanungo, & Associates (1988), Charismatic leadership. The elusive factor in organizational effectiveness (pp. 122–160). San Francisco: Jossey-Bass Publishers, Inc.

Sashkin, M. (1992). Strategic leadership competencies. In R. L. Phillips & J. G. Hunt (Eds.), *Strategic leadership: A multiorganizational-level perspective* (pp. 139–160). Quorum Books/Greenwood Publishing Group.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students fifth edition* (5th ed.). Edinburgh Gate, Harlow, Pearson Education Limited.

Schweiger, D. M., & Denisi, A. S. (1991). Communication with employees following a merger: A longitudinal field experiment. Academy of Management Journal, 34(1), 110 – 135.

Sekaran, U. (2003). *Research methods for business: A skill-building approach* (4th ed.). United States of America: John Wiley & Sons, Inc.

Sharma, D., & Krishnan, V. R. (2012). The impact of pay satisfaction and transformational leadership on employee engagement. Proceedings of the 5th International Conference on Management and Behavioral Sciences, 23, 1–12.

Shmueli, G., Ray, S., Estrada, J. M. V., & Chatla, S. B. (2016). The elephant in the room: Predictive performance of PLS models. *Journal of Business Research, 69*(10), 4552-4564.

Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J. H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. *European journal of marketing, 53*(11), 2322-2347.

Smeltzer, L. R. (1991). An analysis of strategies for announcing organization-wide change. Group and Organization Studies, 16(1), 5 – 24.

Smeltzer, L. R., & Zener, M. F. (1992). Development of a model for announcing major layoffs. Group and Organization Management, 17(4), 446 – 472.

Staw, B. M., Sandelands, L. E., & Dutton, J. E. (1981). Threat rigidity effects in organizational behavior: A multilevel analysis. Administrative Science Quarterly, 26, 501–524. doi:10.2307/2392337

Steel, R. P., & Lloyd, R. F. (1988). Cognitive, affective, and behavioral outcomes of participation in quality circles: Conceptual and empirical findings. *The Journal of Applied Behavioral Science, 24*(1), 1–17.

Stogdill, R. M. (1974). *Handbook of leadership: A survey of theory and research*. Free Press.

Stoker, J. I., Grutterink, H., & Kolk, N. J. (2012). Do transformational CEOs always make the difference? The role of TMT feedback seeking behavior. The Leadership Quarterly, 23(3), 582–592.

Stone, M. (1974). Cross-validation and multinomial prediction. *Biometrika, 61*(3), 509-515.

Sverdlik N, Oreg S. (2009). Personal values and conflicting motivational forces in the context of imposed change. Journal of Personality, 77, 1437–1466.

Talbot, D. G. (2010). Vision and narrative: How two religious sisters of mercy initiated and managed organizational change (Publication No. 3423419) [Doctoral dissertation, Indiana University of Pennsylvania]. ProQuest Dissertations Publishing.

Taylor, C., Cornelius, C., & Colvin, K. (2014). Visionary leadership and its relationship to organizational effectiveness. Leadership & Organization Development Journal, 35(6). 566–583.

Tertiary and Higher Education Act (2016). Ministry of Higher Education, Research Science and Technology. The Republic of the Gambia.

Van Knippenberg, D., & Sitkin, S. B. (2013). A critical assessment of charismatic—transformational leadership research: Back to the drawing board. *Academy of Management Annals, 7*(1), 1-60.

Waldman, D. A., Ramirez, G. G., House, R. J., & Puranam, P. (2001). Does leadership matter? CEO leadership attributes and profitability under conditions of perceived environmental uncertainty. *Academy of Management Journal*, 44(1), 134-143.

Wanberg, C. R., & Banas, J. T. (2000). Predictors and outcomes of openness to changes in a reorganizing workplace. *Journal of Applied Psychology*, 85(1), 132 – 142.

West, M. A. (1990). The social psychology of innovation in groups.

Wilson, T. P. (1968). Patterns of management and adaptations to organizational roles—a study of prison inmates. American Journal of Sociology, 74, 146–157.

Wright, J. A., Philo, J. R., & Pritchard, R. D. (2003). Participation, procedural justice, and performance: A multi-organizational student. Presented at the Society of Industrial Organizational Psychology, Orlando, FL.

Xiang, C. R., & Long, L. R. (2013). Participative leadership and voice: the mediating role of assertive impression management motive. Manage. Rev. 25, 156–166. doi: 10.14120/j.cnki.cn11-5057/f.2013.07.009

Yukl, G. (1999). An evaluation of conceptual weaknesses in transformational and charismatic leadership theories. Leadership Quarterly, 10, 285–30.

Yukl, G. (2012). Effective leadership behavior: What we know and what questions need more attention. *Academy of Management Perspectives*, *26*(4), 66–85.

Yukl, G. (2013). Leadership in organizations. Global edition. (8 ed.). Pearson Education.

Yukl, G., Gordon, A., & Taber, T. (2002). A hierarchical taxonomy of leadership behavior: Integrating a half century of behavior research. Journal of Leadership and Organizational Studies, 9(1), 15-32. https://doi.org/10.1177/107179190200900102

Zaleznik, A. (1977). Managers and leaders: Are they different? *Harvard Business Review, 55*, 67–78.

Zorn, T., Christensen, L. T., & Cheney, G. (1999). *Do We Really Want Constant Change?* San Francisco, CA: Berrett - Koehler.

APPENDIX

Appendix 1: Letter to NAQAA

Dear Sir,

REQUEST FOR INFORMATION

I work with the University of the Gambia and am pursuing a Ph.D. in Business Administration at Istanbul Commerce University in Istanbul, Turkiye. I am researching "The Impact of Leadership on the Effective Implementation of Organizational Change: The Case of the Gambia Higher and Tertiary Education."

Covid-19 has forced Gambia's higher and tertiary educational institutions to change how they conduct their lessons. Most lessons were conducted online instead of traditional ways of delivering lessons to students (i.e., on-campus or face-to-face). Therefore, the aim of this study, broadly speaking, is to determine the impact of leaders' behavior in these institutions on the successful implementation of this change in the Gambia.

I am about to start data collection. However, for sampling purposes, I need certain information regarding the population for the study. Therefore, I wish to kindly request the following information from your noble institution:

- List of Higher and Tertiary Educational Institutions in the Gambia, including their classification (government or private, and conventional or Islamic) and address.
- The total staff population in each of the institutions.
- List of Institutions that moved lessons online during COVID-19.
- The accreditation status of the institutions.

I would be very grateful if you could take urgent action to facilitate this process. I am fully anticipating your immediate response to this request. Thank you in advance.

Yours faithfully

Lamin W. Saidykhan

Appendix 2: Letter to Heads of Higher Educational Institutions in the Gambia

Dear Sir,

Request for Approval to Administer my Ph.D. Dissertation Questionnaire

I am writing to request your assistance with my Ph.D. dissertation research. As part of my research project, I am collecting data on "The Impact of Leadership on the Effective Implementation of Organizational Change in Higher Education Institutions in the Gambia.". In this regard, I request permission to administer a questionnaire to the staff members of your noble institution.

During Covid-19, most lectures were conducted online as opposed to the traditional ways of delivering lectures to students (i.e., face-to-face). Therefore, the main aim of this study is to determine the impact of leaders' behavior in these institutions on the implementation of this change in the Gambia. I believe that a survey of the staff members at your institution will provide valuable insights into how the leaders' behavior affects their followers' response to the change and serve as a guide for the management of future changes.

I understand that your institution may have its own policies and procedures regarding research activities. I assure you that the questionnaire will be administered in accordance with ethical and legal guidelines, and any information provided will be kept confidential.

I have attached a copy of the questionnaire to this letter for your review before its administration. I would also be willing to meet with you to discuss the questionnaire and its potential administration at your institution.

Thank you for your time and consideration.

Sincerely,

Lamin W. Saidykhan

Ph.D. Candidate

Istanbul Commerce University

Appendix 3: Informed Consent Form

Dear Participant,

This is a Ph.D. Dissertation study conducted by **Lamin W. Saidykhan**, a student in the Department of Business Administration (English), Institute of Social Sciences, Istanbul Commerce University under the supervision of **Assoc. Prof. Nurgul KELES TAYSIR.**

The study aims to investigate the Impact of Leadership on the Effective Implementation of Organizational Change in Higher Education Institutions in the Gambia. During Covid-19, most lectures were conducted online as opposed to the traditional ways of delivering lectures to students (i.e. face-to-face). Therefore, the main aim of this study is to determine the impact of leaders' behavior in these institutions on the implementation of this change in the Gambia. Participation in the research project is entirely voluntary. No personal information that might reveal your identity will be asked as any information obtained during the study will be evaluated in groups. Your responses will be kept confidential and used for research purposes only by the researchers. In this sense, it is very important that the questions are sincerely answered and not left blank so that reliable information can be obtained from the research results. The survey generally does not include questions that would cause personal discomfort. However, should you feel discomfort in any way during the study, you can withdraw at any time without giving any reason and without facing any consequences. You are kindly asked to fill out the questionnaire honestly and accurately. Participation in the research study will take approximately 20 minutes.

If you require further information about the study, please contact us by email at lsaidykhan@utg.edu.gm. Thank you for your participation in advance.

I agree to participate in this study voluntarily, without prejudice to my right to withdraw at any time. I authorize the use of my records, any observations, and findings found during the course of this study for education, publication, and/or presentation.

Yes ( ) No ( )

Appendix 4: Demographic Information

This information is needed for the purpose of statistical analysis. Once again, you are assured that your information will not be shared with anyone.

1. What is the name of the institution that you work for?
   a. UTG ( )
   b. MDI ( )
   c. GTTI / USET ( )

2. How long have you been working for this institution (in years)? .....

3. What is your employment status in this institution?
   a. Fulltime employee ( )
   b. Part-time employee ( )

4. What is your Gender?
   a. Male ( )
   b. Female ( )

5. What is your age range (in years)?
   a. Below 30 ( )
   b. 30 to 40 ( )
   c. 41 to 50 ( )
   d. 51 to 60 ( )
   e. Above 60 ( )

6. Marital Status
   a. Single ( )
   b. Married ( )

c. Separated ( )

d. Divorced ( )

e. Widowed ( )

7. Highest level of education you have completed
   a. Bachelor's Degree ( )
   b. Master's Degree ( )
   c. Doctoral Degree (Ph.D.) ( )
   d. Others. Please specify .....

8. What role best describes your responsibility?
   a. Academic Staff ( )
   b. Administrative Staff ( )
   c. Auxiliary Staff ( )

9. Monthly income Range (in Gambian Dalasis)
   a. Less than 20,000 ( )
   b. 20,000 to 30,000 ( )
   c. 30,001 to 40,000 ( )
   d. 40,001 to 50,000 ( )
   e. Above 50,000 ( )

Appendix 5: Dispositional Resistance to Change Scale

Routine Seeking

- I generally consider changes to be a negative thing.
- I'll take a routine day over a day full of unexpected events any time.
- I like to do the same old things rather than try new and different ones.
- Whenever my life forms a stable routine, I look for ways to change it.
- I'd rather be bored than surprised.

Emotional Reaction

- If I were to be informed that there's going to be a significant change regarding the way things are done at work, I would probably feel stressed.
- When I am informed of a change of plans, I tense up a bit.
- When things don't go according to plans, it stresses me out.
- If my boss changed the criteria for evaluating employees, it would probably make me feel uncomfortable even if I thought I'd do just as well without having to do any extra work.

Short-Term Thinking

- Changing plans seems like a real hassle to me.
- Often, I feel a bit uncomfortable even about changes that may potentially improve my life.
- When someone pressures me to change something, I tend to resist it even if I think the change may ultimately benefit me.
- I sometimes find myself avoiding changes that I know will be good for me.
- Once I've made plans, I'm not likely to change them.

Cognitive Rigidity

- I often change my mind.
- Once I've come to a conclusion, I'm not likely to change my mind.
- I don't change my mind easily.
- My views are very consistent over time.

Appendix 6: Response to Change Scale

Affective

- I was afraid of the change
- I had a bad feeling about the change
- I was quite excited about the change*
- The change made me upset
- I was stressed by the change

Behavioral

- I looked for ways to prevent the change from taking place
- I protested against the change
- I complained about the change to my colleagues
- I presented my objections regarding the change to management
- I spoke rather highly of the change to others*

Cognitive

- I believed that the change would harm the way things are done in the organization
- I thought that it was a negative thing that we were going through this change
- I believed that the change would make my job harder
- I believed that the change would benefit the organization*
- I believed that I could personally benefit from the change*

Words marked with an asterisk (*) were reverse coded.

Appendix 7: Leaders' Behavior Scales

Change Information

- The information I have received about the changes has been timely.
- The information I have received about the changes has been useful.
- The information I have received has adequately answered my questions about the changes.
- I have received adequate information about the forthcoming changes.

Change Participation

- People like me had input into the decision to move online
- Management did not give me a chance to express my concerns before they made the decision to move
- The organization did not listen to my views about the change before they decided to move
- Before management decided to move lessons online, they asked me what I thought about the idea

Change Support

- Sufficient resources were available to support this change.
- Adequate training was provided to employees to equip them with the required knowledge and skills to implement the change
- All levels of management were committed to this change.
- Management dealt quickly and effectively with "surprises" during the change.
- There was sufficient Management support for this change.

Appendix 8: Change Effectiveness Scale.

Change Effectiveness
• How do you rate the effectiveness of the change

Appendix 9: Fornell-Larcker Criterion

	CE	DRTC	LB	RTC
CE	1.000			
DRTC	-0.021	0.757		
LB	0.534	0.062	0.750	
RTC	-0.244	0.486	-0.133	0.852

Appendix 10: Cross Loadings

	CE	DRTC	LB	RTC	LB x DRTC
A	-0.187	0.461	-0.080	0.888	0.026
B	-0.166	0.419	-0.120	0.834	0.066
C	-0.273	0.358	-0.143	0.832	-0.011
CE1	1.000	-0.021	0.534	-0.244	0.046
CI	0.418	-0.007	0.757	-0.150	-0.036
CP	0.316	0.012	0.673	-0.148	-0.184
CS	0.453	0.127	0.814	-0.015	-0.075
ER	-0.070	0.833	0.018	0.412	0.057
RS	0.002	0.684	0.066	0.311	0.065
STT	0.028	0.745	0.064	0.371	0.176
LB x DRTC	0.046	0.131	-0.121	0.032	1.000

Appendix 11: VIF – Outer Model - List

	VIF
A	2.084
B	1.718
C	1.703
CE	1.000
CI	1.200
CP	1.194
CS	1.334
ER	1.376
RS	1.207
STT	1.224
LB x DRTC	1.000

Appendix 12: Total Effects

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
DTRC -> CE	-0.089	-0.090	0.027	3.254	0.001
DTRC -> RTC	0.503	0.510	0.053	9.455	0.000
LB -> CE	0.540	0.543	0.046	11.762	0.000
LB -> RTC	-0.171	-0.171	0.064	2.657	0.008
RTC -> CE	-0.176	-0.176	0.052	3.414	0.001
LB x DTRC -> CE	0.009	0.009	0.013	0.676	0.499
LB x DTRC -> RTC	-0.050	-0.050	0.068	0.734	0.463

Appendix 13: Confidence Interval

	Original sample (O)	Sample mean (M)	2.5%	97.5%
DTRC -> CE	-0.089	-0.090	-0.144	-0.038
DTRC -> RTC	0.503	0.510	0.400	0.609
LB -> CE	0.540	0.543	0.447	0.629
LB -> RTC	-0.171	-0.171	-0.294	-0.042
RTC -> CE	-0.176	-0.176	-0.275	-0.075
LB x DTRC -> CE	0.009	0.009	-0.015	0.037
LB x DTRC -> RTC	-0.050	-0.050	-0.177	0.087

Appendix 14: Prediction Errors

