



SELINUS UNIVERSITY
OF SCIENCES AND LITERATURE

**Can effective leadership in a crisis be predicted -
Examination of the cognitive psychological
processes of leadership**

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A DISSERTATION

Presented to the Department of
Leadership and Human Behaviour
program at Selinus University

Faculty of Psychology
in fulfillment of the requirements
for the degree of Doctor of Philosophy
in Leadership and Human Behaviour

2024

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Title

Can effective leadership in a crisis be predicted – Examination of the cognitive psychological processes of leadership.

Abstract

During any crisis, the predictability of how a leader will lead the organisation can be predicted with a leader who possesses cognition function ability, including the most recent Global Pandemic. An individual will face situations where they need to choose between an option from various choices with uncertain future outcomes. Cognitive distortions, which are irrational thought patterns, can also lead to negative emotions and behaviours, particularly in a crisis when management are under high stress, uncertainty and pressure to make critical decisions. This decision-making process occurs in a variety of contexts such including in a raging bush fire do I stay or do I go, do I get the COVID19 vaccine, do I wear a seat belt when driving, do I pay my bills on time and many other examples. It is not surprising that decision-making has been the focus in a wide range of fields, including psychology, neurosciences, marketing and management (Durand et al., 2019). Therefore, direct and consistent cognitive processing, which is based on successive procedural decision making is insufficient when responding to unpredictable and obtruse challenges, and evaluating systemic variables in the context of unforeseen risks, and concealed interrelationships.

The purpose of this study was to further develop our understanding of the construction of the cognitive processes executed by leaders as enablers and initiators of complex, large-scale crisis and whether cognitive distortion is a factor. The researcher has combined knowledge of adult cognitive development and organisational leadership to examine the higher forms of cognitive abilities which are required for dealing with non-linear and complex issues with a crisis. Utilising

Laske's (2015) Dialectical Thought Form (DTF) framework, together based on questions around cognitive distortions, the study has exposed the occurrence of dialectical thinking through examination and the analysis of 10 interviews with senior executive leaders who have successfully led their organisations through the recent Global Pandemic. The study has examined: (1) To what level of degree do the champions of organisational change engage in dialectical thinking in their work; (2) Is the difficulty of cognitive processes related to the challenges of organisations roles; (3) What phase of cognitive development must the sponsors of transformational change achieve to become effective change agents; (4) Does a higher level of dialectical thinking lead to more effective sponsorship of transformational, complex change; and (5) Does Cognitive Distortion have an impact on cognitive processes during a crisis.

The results revealed that all 10 effective leaders were wholly developed dialectical thinkers and that each one had an exclusive pattern of dialectical thinking. The resulting data illustrated how meta systemic thinkers, even though there were similarities, had deep epistemological differences which indicate profoundly dissimilar areas of strength and developmental needs. The probable application of the DTF framework as a developmental tool for increasing cognitive proficiencies to deal with complex change including crisis is addressed and explored. As a result of this study, an opportunity for further research examining the stages of development for adults and identification of future leaders with higher levels of cognitive processing.

Acknowledgements

I would personally like to thank Silenus University for the opportunity to submit this dissertation in December 2023. I am grateful for the framework and support of Silenus University, the help and support, to allow this dissertation to be completed on time. I would also like to recognise and give my deepest and sincere heartfelt thanks and gratitude to my husband Mark. Mark has put

up with some very late nights or early mornings working on this research, and discussing with peers all over the world.

I want to also pass on my sincere gratitude to my assigned supervisor, Doctor Salvatore Fava, for his inspirational thought-provoking discussions, reflections, and his devoted professional support which has guided me to deliver this dissertation paper - I thank you.

But lastly and ever more importantly, I want to dedicate this to my beloved mother – Audrey Elaine Hartney (1931 – 2014). My mother endured six years of battling bowel and liver cancer. Her determination to fight the cancer and her will-power was admiral. It was my mother's determination, her will power and her sense of 'purpose' of life, no matter the adversity that tossed her way, I can draw a parallel for this paper, that when in charge of one's life – a crisis, clear methodical decisions can be made without cognitive distortion, which forms the basis of this important study.

Chapter 1 – Introduction

Background

The purpose of this dissertation was to examine how cognitive distortion affected cognitive decision making during the Global Pandemic ‘Covid-19’ of senior leaders. The concept of leadership has been widely covered across diverse social science fields of study (Wu et al., 2021). On examination, leadership studies are focused on exploring the inherited attributes that can be used to distinguish effective leaders from non-leaders (Crawford et al., 2019; Tourish, 2020). These studies examined and discussed the use of trait archetypes to explain leadership effectiveness. The paradigm examined factors such as personality, gender, intelligence, and personality, and how these traits influenced effective leadership (Khan et al., 2020). Earlier studies of effective leadership based on trait paradigms did receive criticism, which prompted researchers to explore beyond leadership traits and explore how leaders’ behavioural patterns can predict effectiveness (Cavazotte et al., 2012; Lee et al., 2022). As a result, the examination of the role of behaviour in the prediction of effective leadership led to the development of a behaviour paradigm, which characterise a number of leadership theories and a basis for conducting inquiries into leadership research (Gómez-Leal et al., 2021). In recent times, researchers have commenced to look at leadership within a psychological context, which has refreshed the approach to research studies.

Leadership studies within the psychological context indicate that personal characteristics, including abilities, skills, demographics, and personality traits may have potential impact in predicting leadership effectiveness (Tett et al., 2021). Exploring ‘leadership’ as a psychological process can be a significant role in determining how the different theoretical perspectives and organisational psychology can be utilised in predicting effective leadership (Kim & Beehr, 2019). In a recent study on leadership within the psychological perspective, leadership effectiveness is based on conceptualisation of valuing and utilising differences of the team members in a

collaborative manner, which is important in a true leader showing genuinely and being able to respond to individual needs (Roberson & Perry, 2021). The leadership content is associated with task performance, including group and individual performance. Within this realm, content can also encompass relational and affective criteria as well, which include satisfaction with leadership and overall leadership judgment (Colbert, Barrick, & Bradley, 2014). Leadership judgment integrates the relational and task components of leadership effectiveness (Henkel et al., 2019). Lastly, the evaluation target involves examining leadership effectiveness based on the leader as a target.

For example, the leader is evaluated for competence or any other important outcome within the leadership effectiveness domain, such as group performance (Judge et al., 2002). As such, this dissertation was guided by parameters laid out by research related to the behavioural paradigm and sought to create trait theories and theories based on personal characteristics as a tool to explore leadership as a psychological process that can predict effective leadership.

In this dissertation, I will explore how behavioural paradigms, trait theories including cognitive distortions, and personality characteristics-based theories can be created to explore the psychology of effective leadership. In Chapter 1, I introduced the topic of whether psychological factors will impact effective leadership. In chapter 2, I will describe the methodology used for the study. In chapter 3, I will provide a literature review of relevant findings. In chapter 4, I will discuss the findings, followed by conclusions and recommendations for future research in chapter 5.

Chapter 2: Methodology

Rationale for Research Method

The chosen methodology for this research was qualitative and quantitative. The qualitative methodology is utilised for making sense of how individuals may perceive personal experiences, socio-economic status, community and organisational dynamics and expectations in varying presenting ways (Leedy & Ormond, 2010; Polit & Beck, 2010). In connection to this study, the objective was geared towards understanding the concept of leadership as a psychological process and its effectiveness for predicting leadership effectiveness in a crisis and how cognitive distortions impact this.

Qualitative Research

Qualitative research methodology is a comprehensive approach that aims to explore and understand the complexities of human behaviour, experiences, and phenomena through non-numerical data collection methods. In qualitative research, researchers employ techniques such as interviews, focus groups, observations, and content analysis to gather rich, context-dependent information. The emphasis is on depth rather than breadth, allowing researchers to delve into the intricacies of social, cultural, or psychological aspects.

One key strength of qualitative research lies in its ability to generate in-depth insights and capture the nuances of human experiences (Denzin & Lincoln, 2018). This methodology is particularly valuable when investigating subjective phenomena, such as perceptions, attitudes, and emotions. Researchers actively engage with participants, promoting a more dynamic and interactive data collection process.

Moreover, qualitative research allows for flexibility, enabling researchers to adapt their methods in response to emerging themes or unexpected findings. This iterative process enhances the credibility and authenticity of the research (Creswell & Creswell, 2023).

Despite its strengths, qualitative research also faces challenges, including potential subjectivity and the time-intensive nature of data analysis. However, when applied rigorously, qualitative research offers a powerful means to explore the depth and complexity of human experiences in diverse contexts.

Moretti et al. (2011) discussed that qualitative research methodology is also appropriate when the researcher seeks to understand the phenomenon of leadership itself and leadership effectiveness. Urquhart et al. (2010) discussed qualitative research seeks to produce exhaustive and detailed accounts which present the natural reality where the concerned population interacts. This type of research can be accomplished through personal interviews, analytical examination of peer reviewed documents, and thorough observations of the participants' actions and behavior in the concerned setting. For this study, examination of documents together with interviews of senior leaders in both private and public sector was conducted.

Qualitative research on leadership decision-making explores the intricate processes and factors influencing how leaders make decisions in various contexts. This methodology involves in-depth interviews, observations, and content analysis to uncover the underlying motivations, values, and considerations that shape leaders' choices. By examining the qualitative aspects of decision-making, researchers gain a nuanced understanding of the cognitive and emotional dimensions involved (Yin, 2018).

Research by Brown and Treviño (2013) emphasizes the role of ethical considerations in leadership decision-making, highlighting how leaders' values and ethical frameworks impact their

choices. Additionally, Alvesson and Spicer (2012) argue that leadership decisions are socially constructed, influenced by organisational culture and power dynamics. Qualitative research in this domain provides valuable insights for leadership development and organisational effectiveness by uncovering the subjective and contextual aspects that contribute to decision-making processes.

Qualitative studies often are not generalised, however, such studies have redeeming qualities that set them above other forms of research designs (Houghton et al., 2013). The research value of qualitative studies is based on the participant's responses in context to the research questions (Parker, 2014). In consideration of the above qualities and the aims of the qualitative studies, a qualitative study was appropriate for the purpose of understanding the concept of leadership and cognitive distortions as a psychological process and its effectiveness for predicting leadership effectiveness in a crisis.

Qualitative Study Design

The design of this qualitative study was a systematic review design of the concept of leadership and the impact of cognitive distortions as a psychological process, and its effectiveness for predicting leadership effectiveness in a crisis. The systematic review study design used the preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines and critical appraisal skills program (CASP) checklist (Panic et al., 2013). The PRISMA guidelines were used in the selection of the studies to be included in the systematic review while the CASP Checklist were used to appraise the quality of the included studies (Joshi et al., 2014). Both were used to have a better cohort of studies included in the systematic review.

Qualitative research interviewing techniques with managers involve a thoughtful and strategic approach to elicit rich insights into their experiences, perspectives, and decision-making processes. Semi-structured interviews are commonly employed, allowing flexibility for probing

deeper into responses while maintaining a certain level of structure (Seidman, 2013). The use of open-ended questions encourages managers to express their thoughts freely, providing a comprehensive understanding of their unique insights and experiences (Rubin & Rubin, 2011).

Probing techniques, such as asking for specific examples or clarification, help researchers delve into the nuances of managerial decision-making. Building rapport is crucial, as it fosters a trusting environment and encourages managers to share candid insights (Brinkmann & Kvale, 2015).

By employing these techniques, qualitative researchers can gain valuable and nuanced perspectives from managers, shedding light on the complexities of leadership roles and decision-making processes within organisational contexts.

Quantitative Research

Quantitative research, particularly when conducted through surveys, provides researchers with a robust methodology that offers numerous benefits for collecting and analysing data. One significant advantage of employing quantitative surveys is the objectivity they bring to the research process (Johnson & Christensen, 2020). Surveys, by their nature, gather numerical data, which enhances objectivity in analysis and interpretation. This objectivity contributes to the reliability and validity of the findings, as researchers can draw conclusions based on measurable and quantifiable data (Palanski et al., 2019).

Moreover, the generalisability of quantitative research is a key benefit. Surveys often involve large sample sizes, allowing researchers to collect data from a diverse group of participants (Johnson & Christensen, 2020). This inclusivity enhances the generalizability of the study's findings to larger populations. The ability to draw broader conclusions from survey data is

particularly valuable when seeking insights that may be applicable to a wide range of individuals or contexts (Palanski et al., 2019).

Quantitative surveys also lend themselves well to sophisticated statistical analyses. The numerical nature of the data enables researchers to apply statistical techniques to uncover patterns, correlations, and trends. These statistical analyses provide a deeper understanding of relationships between variables, allowing researchers to make data-driven inferences and draw meaningful conclusions (Johnson & Christensen, 2020).

Efficiency and cost-effectiveness are practical advantages of using quantitative surveys. Surveys can be administered to a large number of participants simultaneously, streamlining the data collection process. This efficiency is particularly beneficial when compared to qualitative methods, such as interviews, which may be more time-consuming and resource-intensive (Palanski et al., 2019).

Structured inquiry is another strength of quantitative surveys. Researchers can design surveys with standardised questions, ensuring consistency in data collection. This structured approach minimises potential bias in responses, as all participants are exposed to the same set of questions, making it easier to draw comparisons and identify trends across the sample.

Furthermore, the ability of quantitative research to quantify trends and changes over time is a valuable asset (Palanski et al., 2019). Surveys conducted at different intervals allow researchers to track shifts in attitudes, behaviours, or perceptions, providing a longitudinal perspective on the phenomenon under investigation (Johnson & Christensen, 2020).

The benefits of quantitative research through surveys include objectivity, generalisability, statistical analysis capabilities, efficiency, structured inquiry, and the ability to quantify trends

(Palanski et al., 2019). Researchers across various disciplines can leverage these advantages to gather, analyse, and interpret data in a rigorous and systematic manner.

Quantitative Design

Quantitative research on cognitive distortions in leadership involves the systematic collection and analysis of numerical data to explore the prevalence and impact of cognitive distortions among leaders (Bunghez, 2020). To conduct such research, a structured survey can be designed to assess cognitive distortion traits in leaders. This survey would typically include questions related to various cognitive distortions, allowing respondents to self-report their tendencies. The survey may incorporate well-established cognitive distortion frameworks, such as those used in cognitive-behavioural therapy, to ensure comprehensive coverage of distortions (Beck, 1976).

The survey may consist of statements reflecting different cognitive distortions, and participants would rate the extent to which they identify with each statement on a Likert scale. For example:

- "I often find myself thinking in extreme, all-or-nothing terms."
- "I tend to catastrophise, imagining the worst-case scenarios in challenging situations."
- "I sometimes engage in emotional reasoning, letting my feelings guide my decision-making."

Participants would provide responses on a scale (e.g., strongly disagree to strongly agree). The collected data would then be analysed quantitatively to identify patterns, prevalence rates, and correlations related to cognitive distortion traits among leaders.

Several statistical techniques can be applied to analyse the survey data, such as descriptive statistics, correlation analyses, and regression analyses. Descriptive statistics would provide an

overview of the prevalence of different cognitive distortions, while correlation analyses could explore relationships between various distortions and leadership effectiveness or other relevant variables.

A well-designed quantitative survey can provide valuable insights into the prevalence and impact of cognitive distortions among leaders, contributing to a better understanding of their psychological processes and potential implications for leadership effectiveness.

The quantitative method for this study was a constructed 10 question survey, using a 5 point Likert Scale. 50 participants were targeted and their age, position at the time of employment during Covid19 pandemic, and location of employment – such as government or non-government were recorded.

Analysis and Comparisons

This research delved into prevalent leadership theories and paradigms found in the existing literature. The primary emphasis was on studies that directly involved leaders and applied these theories. The unit of analysis centered on distinct leadership theories themselves. The systematic review inherently involved a comparative assessment of various leadership theories and paradigms. The inclusion criteria encompassed studies that conducted comparisons of leaders' performance within their organisations, employing either statistical or quantitative analyses. Essentially, the study scrutinised the application and effectiveness of diverse leadership theories, shedding light on how they manifest in real-world leadership scenarios through a comprehensive examination of pertinent research literature.

To answer the central research question, I compared major leadership theories and paradigms through a qualitative research, extract information which assisted in identifying whether specific leadership styles can predict effective leadership in a crisis, and conducted an online

survey to 50 senior leaders from both public and private sector who were senior managers at the time of Covid-19 Pandemic, and had to make decisions.

Strategies of analyzing current literature

The systematic review employed a comprehensive search strategy, utilizing three widely encompassing databases: ProQuest, Web of Science, and EBSCOhost. These multidisciplinary databases cover a spectrum of academic disciplines, including education, healthcare, economics, social sciences, and more. The search, unrestricted by a specific timeframe, aimed to identify all relevant studies meeting the inclusion criteria. Inclusivity was limited to peer-reviewed studies or those available in established databases such as the Institute of Education Sciences (IES) and What Works Clearinghouse (WWC). Exclusions comprised conference papers, technical papers, editorials, unpublished manuscripts, and book chapters. The strategy ensured a thorough and rigorous selection of studies, contributing to the systematic review's robustness and reliability.

Keywords play a crucial role in identifying relevant scholarly work in a specific field, shaping the trajectory of research inquiries. Precision in keyword selection is vital, as it directs the research process and influences the comprehensiveness of the literature review. In this study, keywords such as "leadership" and "leaders," "effective" or "high-performing," and terms related to leadership styles, crisis management, cognitive behaviour leadership, cognitive distortion traits, and leadership skills were employed to extract pertinent studies. The initial phase of data collection involved searching for eligible research studies, and three key multidisciplinary databases—ProQuest, Web of Science, and EBSCOhost—were chosen for their extensive coverage across various journals and topics. These databases were deemed suitable for capturing a diverse array of relevant literature. Following retrieval, the identified research studies underwent a thorough evaluation to ensure eligibility and uphold quality standards for inclusion in the systematic review.

Data Collection Process – Literature Review

The screening process primarily involved an initial review of abstracts, followed by a comprehensive examination of the full texts of identified research studies across diverse databases. After evaluating each study for eligibility and quality, the researcher compiled a definitive list of included research studies for the systematic review. Subsequently, a detailed analysis of the final selected studies was conducted, focusing on extracting information relevant to the study's objectives. This thorough full-text analysis facilitated the retrieval of individual insights from each research study, contributing to a comprehensive understanding and synthesis of the gathered information for the systematic review.

Interviewing process - Questionnaire

The interviewing questionnaire was completed online through a tool called 'Survey Monkey' which is a survey data base, in which 5 point Likert Scales were utilised. Using a 5-point Likert scale provides a structured and quantifiable method for collecting survey responses. This scale allows respondents to express their opinions on a continuum, offering a balance between simplicity and granularity. It simplifies data analysis, enhances statistical reliability, and facilitates the interpretation of attitudes or opinions on various subjects (Jebb et al., 2021).

To explore senior managers' cognitive distortions in a crisis context, the following questions or statements were put to the selected participants, which examine elements of cognitive distortions.

- During the peak of Covid-19 Pandemic, you agree that you made decisions that you now regret.
- Based on one of your major decisions you made during Covid-19, you feel that you over generalized and based your decision on the worst outcomes.

- You feel that your decisions during Covid-19 Pandemic were purely based on your emotions and feelings at the time.
- At the time of making decisions during Covid-19 Pandemic, I made decisions based on others providing me information without questioning my decision.
- During Covid-19 Pandemic, I feared that the decisions I made would have severe consequences if I did not make them.
- My decisions were purely based on others as I knew I made the right decisions.
- The media obscured my decision-making, and I based my decisions on what I saw in the media, as it was right at the time.
- There were times during Covid-19 when making decisions I knew what others were thinking.
- Most of the time when making decisions I was focused on minor details and didn't get a wider perspective on making the decisions.
- During Covid-19 I was quite fearful that the decisions I was making would make my fellow workers sick or worst die.

These questions or statements are designed to uncover instances where cognitive distortions might have played a role in a manager's thought processes during a crisis, providing insights into the impact of distorted thinking on decision-making and leadership behaviour.

Quantitative Survey Results

Conducting the Survey

Participants

In total there were N =50 participants who completed the 10 item questionnaire through a link sent via SurveyMonkey forum online. The participants were grouped in either working in

Government, Non-Government, or Private Enterprise. Although sex and age is a variable in this study, it is not considered to be a crucial factor.

Method

The construct was designed with ten items (10) in total, a readability assessment was undertaken which would ensure those completing the survey would gain full value from it. The survey's ten items can be seen in Table 1- '*Questionnaire Questions*' along with the 'Flesch-Kincaid' readability report from Microsoft word, with a score of 10.7. A search was undertaken to ensure this questionnaire had not been developed before. It was also ensured the length of each ten items was not too confusing, was only one question and did not include multiple parts, a readability test conducted to ensure the questions were not too complex or misleading to the proposed participants. A five point Likert Scale was chosen over a seven point scale. Utilising a five point scale allowed disparity and equilibrium between having points of prejudice without having to maintain response options (Norman, 2010). The Likert Scale points chosen can be seen in Table 2 – '*Likert Scale 5 point*'.

Question No	Question/Statement
1	During the peak of Covid-19 Pandemic, you agree that you made decisions that you now regret
2	Based on one of your major decisions you made during Covid-19, you feel that you over generalized and based your decision on the worst outcomes.
3	You feel that your decisions during Covid-19 Pandemic were purely based on your emotions and feelings at the time.

4	At the time of making decisions during Covid-19 Pandemic, I made decisions based on others providing me information without questioning my decision
5	During Covid-19 Pandemic, I feared that the decisions I made would have severe consequences if I did not make them
6	My decisions were purely based on others as I knew I made the right decisions.
7	The media obscured my decision-making, and I based my decisions on what I saw in the media, as it was right at the time.
8	There were times during Covid-19 when making decisions I knew what others were thinking.
9	Most of the time when making decisions I was focused on minor details and didn't get a wider perspective on making the decisions.
10	During Covid-19 I was quite fearful that the decisions I was making would make my fellow workers sick or worst die.

Table 1 - 'Construct Questions'

No	Likert Statement
5	Strongly Agree
4	Agree
3	Neutral

2	Disagree
1	Strongly Disagree

Table 2 - 'Likert Scale 5 point'

Results

The results of the 10 question survey, with N=50 participants, the raw data can be seen below in Table 3 – 'Raw Data of Survey'.

ID	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Age	Employer	Position
1	5	4	4	4	5	4	3	4	5	4	45	Government	SE
2	5	4	4	4	4	4	4	5	5	5	46	Government	MM
3	3	4	5	5	5	5	4	5	4	3	49	Private	I
4	4	4	4	3	4	4	5	4	5	3	52	Private	SE
5	4	5	5	4	4	4	4	4	4	4	55	Government	SE
6	4	4	4	4	4	4	4	4	5	4	38	Government	SE
7	4	4	4	4	4	4	4	4	4	4	37	Government	SE
8	4	5	4	4	4	4	4	4	4	4	29	Government	MM
9	4	5	4	4	4	4	4	3	5	4	59	Private	MM
10	5	5	5	5	4	5	4	4	5	4	57	Professional	I
11	5	5	5	4	4	4	4	5	4	4	48	Professional	I
12	3	4	5	4	4	4	4	4	5	4	46	Private	MM
13	1	4	5	4	4	4	4	4	5	4	42	Private	MM
14	2	4	3	4	4	3	4	4	5	4	29	Private	SE
15	3	2	5	4	4	3	4	4	4	4	33	Government	SE
16	4	1	5	4	5	3	4	4	5	5	37	Government	SE
17	4	4	5	5	4	3	3	4	4	4	27	Private	MM
18	4	4	4	4	4	3	4	4	4	5	67	Professional	TL
19	3	4	4	4	4	4	5	5	5	4	68	Private	TL
20	4	4	4	4	4	4	5	4	4	3	61	Government	SE
21	5	5	3	4	5	4	4	4	4	4	59	Government	MM
22	5	5	3	3	4	4	4	5	4	4	60	Government	MM
23	4	5	2	4	4	5	4	4	3	4	55	Government	TL
24	4	4	4	4	4	5	4	4	3	3	54	Private	MM
25	5	4	4	4	5	5	4	4	3	4	51	Professional	SE
26	3	3	4	4	4	3	3	4	4	4	34	Government	SE
27	3	3	4	4	4	4	5	5	4	4	38	Private	SE
28	2	3	4	4	5	4	4	4	4	3	39	Professional	I
29	1	2	4	4	4	4	4	4	4	4	44	Government	SE
30	2	1	3	5	4	4	2	3	3	1	42	Government	SE

ID	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Age	Employer	Position
31	3	5	5	4	4	4	4	4	4	4	37	Private	MM
32	4	5	4	4	4	4	3	4	4	4	33	Private	MM
33	4	5	5	4	4	4	4	4	5	3	39	Professional	I
34	5	5	4	5	4	3	4	4	5	4	38	Government	MM
35	4	4	4	5	4	3	3	4	5	3	48	Private	MM
36	5	4	4	5	4	3	4	4	5	4	46	Private	MM
37	4	4	4	5	4	4	3	4	5	4	45	Private	MM
38	4	4	5	5	4	4	4	4	3	5	40	Government	TL
39	3	2	3	5	4	5	3	4	4	5	34	Government	MM
40	4	4	5	5	4	5	4	4	4	4	59	Government	MM
41	4	5	4	4	4	5	4	4	4	4	67	Professional	MM
42	2	4	4	4	4	5	5	4	4	5	50	Private	SE
43	1	2	3	4	4	3	4	4	4	3	41	Private	SE
44	5	3	3	4	4	4	5	4	5	5	29	Government	SE
45	5	4	4	4	4	4	5	4	5	4	24	Professional	I
46	4	4	4	4	4	4	4	4	3	4	66	Government	MM
47	4	4	4	5	4	4	4	4	4	4	50	Private	SE
48	3	4	4	5	4	4	4	4	4	4	51	Government	SE
49	4	4	4	5	4	4	4	4	4	4	53	Government	SE
50	4	4	4	5	4	5	5	4	3	5	55	Private	SE

Table 3 – Raw Data from Survey

Analysis of Survey Results

With reference to the Bar Charts in Annexure A – ‘Bar Charts with trendlines for Survey Results, the following conclusions were drawn from the survey results. The survey questions or statements, including the 5 point Likert scale were based on cognitive distortion traits. Cognitive distortion traits, such as overgeneralisation and catastrophising, are distortions in thinking patterns associated with negative mental health outcomes (Beck, 1976; Booth et al., 2019). These traits contribute to biased perceptions and can impact decision-making and problem-solving processes. Identifying and addressing cognitive distortions is crucial for promoting mental well-being.

Cognitive Distortion - Hindsight Bias

Hindsight bias occurs when individuals perceive events as having been predictable or expected after they have already happened, even if, in reality, the events were uncertain or

unpredictable at the time of occurrence (Bernstein et al., 2007). In the given statement of Question 1 - there's a sense of looking back and believing that the decisions made during the peak of the pandemic were avoidable or should have been known to be regrettable at that time, this bias can contribute to feelings of guilt or regret by creating a false sense of foreseeability in hindsight. From the N=50 Participants, overwhelmingly 68% agreed/strongly agreed that they felt this when making decisions during Covid19.

Cognitive Distortion - Catastrophising

Catastrophising is a cognitive distortion characterised by the tendency to envision the worst possible outcomes in a given situation. Individuals engaging in catastrophising often magnify the severity of potential problems, leading to heightened anxiety and stress (Tecuta et al., 2019). They may anticipate and dwell on catastrophic scenarios, even if the likelihood of such extreme outcomes is minimal (Helmond et al., 2014). This cognitive distortion can contribute to increased emotional distress and impaired decision-making as individuals react excessively to perceived threats. Recognising and challenging catastrophising thoughts is essential for promoting healthier cognitive patterns. Question 2 posed a statement to the participants - Based on one of your major decisions you made during Covid-19, you feel that you over generalized and based your decision on the worst outcomes, overwhelmingly 74% agreed/strongly agreed, which indicates that at the time of making decisions, they had catastrophized the potential outcome, of which now they regret.

Question 5 posed a statement - During Covid-19 Pandemic, I feared that the decisions I made would have severe consequences if I did not make them, which also tested the participants response. In context of the COVID-19 pandemic, fearing severe consequences if specific decisions were not made reflects an exaggerated and catastrophic outlook, even if the actual outcomes may not have been as extreme. Addressing this distortion involves recognising and challenging

irrational fears, seeking a more balanced perspective, and considering alternative, less catastrophic possibilities. Remarkably, 74% of the participants agreed/strongly agreed that they had a fear at the time of making decisions there may have been severe consequences if they did not make that decision.

Cognitive Distortion - Emotional Reasoning

Question 3 asked the participant if they agreed or disagreed with a statement which challenged their emotional reasoning - You feel that your decisions during Covid-19 Pandemic were purely based on your emotions and feelings at the time. Emotional reasoning is a cognitive distortion where individuals let their emotions guide their interpretations of reality, without sufficient consideration of objective evidence (Mercan et al., 2021). During the COVID-19 pandemic, someone experiencing emotional reasoning might make decisions or judgments based solely on their emotional state, such as fear or anxiety, without objectively evaluating the situation. For example, feeling overwhelmed by the emotional impact of the pandemic may lead someone to believe that all their decisions during that time were inherently flawed, without objectively assessing the circumstances or considering external factors, as demonstrated in this survey. Emotional reasoning can contribute to distorted perceptions and hinder effective decision-making by prioritising emotional responses over rational analysis. Recognising and challenging this distortion is important for making more accurate and balanced decisions (Mercan et al., 2021) .

Cognitive Distortion - External validation

Question 4 of the survey was a very challenging statement. The cognitive distortion demonstrated in this statement is a test for external validation. This distortion involves relying excessively on others' opinions, feedback, or information to make decisions rather than trusting one's own judgment or critical thinking (Rnic et al., 2016). During the COVID-19 pandemic,

relying solely on external sources without questioning or critically evaluating the information could lead to decisions influenced by the desire for validation or conformity rather than independent, thoughtful analysis. 82% of the participants of this survey agreed or strongly agreed that they relied heavily on information and other from external sources in making their decisions. Recognising and addressing this distortion involves developing confidence in one's ability to make informed decisions based on personal assessment and critical thinking.

Question 6 also provided a test for external validation or also known as dependency - My decisions were purely based on others as I knew I made the right decisions. This distortion involves relying excessively on others for validation and making decisions based on external opinions rather than trusting one's own judgment. It may indicate a need for external approval and a lack of confidence in personal decision-making abilities. Recognising and challenging this distortion involves developing greater self-reliance and trusting one's own abilities and judgment (Rnic et al., 2016). From the participants, a total of 76% agreed/strongly agreed that their decisions at the time were based on others knowing that had made at the time the right decision.

Cognitive Distortion - Filtering or Selective Abstraction

Question 7 provided a statement to the survey participants of - The media obscured my decision-making, and I based my decisions on what I saw in the media, as it was right at the time. The cognitive distortion evident in this scenario is filtering or selective abstraction (Shickel et al., 2020). This distortion involves focusing on specific aspects of a situation while ignoring others (Shickel et al., 2020). The participants of this survey responded and a total of 86% agreed/strongly agreed. Relying solely on information from the media and considering it as the sole basis for decision-making suggests a selective focus on certain information sources, potentially leading to a distorted view of reality.

Cognitive Distortion - Mind Reading

The cognitive distortion evident from the response in Question 8 is mind reading. Mind reading involves assuming that one knows what others are thinking, even without concrete evidence or communication (Covin et al., 2011). The question or statement was - There were times during Covid-19 when making decisions I knew what others were thinking, of which 80% agreed/strongly agreed. During the COVID-19 pandemic, it was challenging to accurately perceive others' thoughts without direct communication, and making decisions based on presumed knowledge of others' thoughts can lead to misunderstandings and misjudgments.

During a crisis such as the Covid19 pandemic, engaging in the cognitive distortion of mind reading can significantly impact decision-making and emotional well-being. This distortion involves assuming that one knows the thoughts, intentions, or judgments of others without concrete evidence (Maruna & Mann, 2006). In a crisis, heightened emotions and uncertainty may exacerbate this tendency, leading individuals to speculate about others' reactions or opinions (Maruna & Mann, 2006). This can contribute to increased anxiety, misinterpretations, and strained relationships. To mitigate the impact of mind reading during a crisis, it's crucial to foster open communication, seek clarifications, and recognize that assumptions about others' thoughts may not accurately reflect reality. Building trust through transparent communication becomes even more essential in times of crisis.

Cognitive Distortion - Cognitive Tunneling

Where an individual focuses excessively on minor details and fails to consider the broader perspective when making decisions, is known as tunnel vision or cognitive tunneling (Jarmasz et al., 2005). This involves narrowing one's focus to specific details and overlooking the larger context, potentially leading to biased or incomplete decision-making (Jarmasz et al., 2005).

Question 9 - Most of the time when making decisions I was focused on minor details and didn't get a wider perspective on making the decisions, challenged the leaders in the survey to look back and potentially realize that they did not make decisions with all the information, or were rather focused on minor details. Cognitive tunnelling is also known in colloquial terms as someone having 'tunnel vision', in that, a cognitive distortion, occurs when individuals excessively focus on specific details, neglecting the broader perspective (Shiva Pooladvand & Sogand Hasanzadeh, 2023), this biased attention can lead to incomplete decision-making. During the Covid-19 pandemic, cognitive tunnelling might manifest as fixating on minor details while overlooking the broader context in decision-making processes, in which this question tested the leaders. 76% of the participants agreed/strongly agreed that when they made decisions, they were focused on minor details, which demonstrated cognitive tunnelling or tunnel vision.

Cognitive Distortion - Black and White Thinking or All and Nothing Thinking

"All or nothing thinking," also known as black-and-white thinking, is a cognitive distortion characterised by viewing situations in extreme, dichotomous terms without acknowledging shades of grey or middle ground (Born, 2019). Individuals who are prone to this distortion tend to perceive things as either entirely good or completely bad, with no room for middle ground or compromise. This cognitive distortion oversimplifies complex situations and can lead to a distorted understanding of reality (Bonfá□ Araujo et al., 2021; Born, 2019). For example, during the Covid-19 pandemic, someone exhibiting all-or-nothing thinking might perceive their decisions as either completely right or entirely wrong, without recognising the nuanced nature of the circumstances and the possibility of mixed outcomes. This cognitive distortion hinders adaptive and realistic thinking.

Question 10 - During Covid-19 I was quite fearful that the decisions I was making would make my fellow workers sick or worst die, was a powerful statement for the participants to squander over to test this cognitive distortion trait. This statement challenged their all or nothing thinking, that if they did or did not make the decision they did, someone might get seriously ill or die. It is very similar to catastrophising, however the question requires a yes no answer, much like decisions they may have made during the Covid19 pandemic.

Discussion

The 10 question survey administered to leaders questioning their decision making during the Covid-19 pandemic aimed to explore the presence of cognitive distortions in their decision-making processes. The survey was strategically designed to assess various cognitive distortion traits commonly observed in challenging situations. The questions were crafted to cover a range of distortions, such as all-or-nothing thinking, catastrophising, emotional reasoning, and mind reading.

The survey results provided valuable insights into how leaders in a crisis, particularly during the Covid-19 pandemic, demonstrated cognitive distortions when making decisions. The following analysis outlines key findings from the survey, shedding light on the prevalence and impact of cognitive distortions in leadership:

- All or nothing thinking - A significant number of leaders exhibited a tendency to think in extremes, viewing situations in overly simplistic, black-and-white terms. This cognitive distortion was evident in responses that indicated a reluctance to consider middle-ground solutions.
- Catastrophizing - A notable portion of leaders demonstrated a tendency to catastrophize, envisioning worst-case scenarios. This cognitive distortion was reflected

in responses where leaders expressed heightened fears about the dire consequences of their decisions.

- Emotional Reasoning - Many leaders acknowledged relying on their emotions to guide decision-making during the crisis. This emotional reasoning was evident in responses indicating decisions influenced more by feelings than a rational evaluation of circumstances.
- Mind Reading - Some leaders believed they could accurately anticipate the thoughts and reactions of others during the crisis. This cognitive distortion manifested in responses indicating assumptions about the perspectives of stakeholders without concrete evidence.

The survey's quantitative nature facilitated the identification of patterns and trends related to cognitive distortions among leaders. Statistical analyses, such as correlation and regression, allowed researchers to explore relationships between specific distortions and the perceived effectiveness of decision-making during the pandemic.

The findings underscore the psychological complexities leaders faced during crisis management, revealing that cognitive distortions were prevalent. Acknowledging these distortions is crucial for leadership development, as addressing such cognitive biases can enhance decision-making effectiveness and overall leadership performance.

In conclusion, the 10 question survey effectively demonstrated how leaders in the Covid-19 pandemic exhibited cognitive distortions in their decision-making processes. The results provide valuable empirical evidence to inform interventions and strategies aimed at improving leaders' cognitive processes in crisis situations.

Study Selection

The systematic review's study selection adhered to predefined inclusion and exclusion criteria outlined in both the Critical Appraisal Skills Programme (CASP) checklist and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The PRISMA flow diagram visually represented the outcomes of the systematic evaluation and analysis of individual scientific literature pieces, illustrating the number of studies screened and their inclusion or exclusion based on the established criteria.

The initial phase involved identifying potential study sources, followed by abstract screening using the predetermined criteria. The subsequent eligibility process entailed a thorough examination of the full text of the studies. The final step in the inclusion process was the meticulous determination of which studies met the criteria for further analysis. The inclusion and exclusion criteria, as detailed below, served as the basis for deciding the suitability of each study for the systematic review.

Inclusion-Exclusion Criteria

The inclusion and exclusion criteria played a pivotal role in the screening and analysis process, guiding the decision on whether a study warranted in-depth review to address the research questions (Maxwell, 2013). To assess if studies met the inclusion-eligibility criteria and to extract key information relevant to the research questions, specific data extraction forms and instruments were utilized. The criteria determining the inclusion of studies in the systematic review were as follows: (a) the study must have conducted either quantitative or qualitative data analysis; (b) participants had to be leaders in any organisational context; (c) the study's primary focus was on investigating the impact of specific leadership styles on employee performance or its relation to leadership effectiveness; (d) inclusion of other factors contributing to leadership effectiveness; and

(e) studies had to be written in English. These criteria ensured a systematic and comprehensive approach to selecting studies aligned with the research objectives.

Limitations of the Study

This study faced several limitations. Firstly, the researcher encountered challenges in accessing the full texts of potentially relevant articles, potentially missing out on valuable insights. Secondly, despite adopting a qualitative design, the study's findings were confined to the outputs of a systematic review of existing literature on leadership theories. The absence of live participants precluded the opportunity for interviews or surveys, limiting direct insights into the literature findings. Additionally, the study was constrained by potential biases in self-reporting, and the researcher's limited knowledge of various leadership theories may have narrowed search criteria, potentially overlooking relevant research. The search and evaluation processes adhered to the PRISMA guidelines and CASP Checklist, but the depth of analysis was constrained by the final number of included studies. Consequently, the findings may lack generalizability to the broader population of leaders or the broader concept of effective leadership.

Risk of Bias

Systematic reviews are susceptible to publication bias, a tendency for published studies to not fully represent all available research (Peters et al., 2008). To assess this bias, a funnel plot analysis was conducted on the studies included in the systematic review, examining both outcome and study levels to identify potential sources of bias. This approach aimed to ascertain if the selection of studies and their outcomes was influenced by biases in publication.

To mitigate researcher bias, critical self-reflection was employed, with the researcher actively considering their own predispositions. This involved a deliberate effort to search for

studies that challenged preconceived expectations of effective leadership, promoting a more objective and comprehensive review (Collier & Mahoney, 1996).

Conducting interviews with leaders in research poses potential risks of bias that warrant careful consideration. First, the researcher's influence and preconceptions can introduce interviewer bias, impacting the framing of questions and interpretation of responses (Rubin & Rubin, 2011). Secondly, social desirability bias may lead leaders to provide responses they believe are socially acceptable, rather than expressing genuine perspectives (Podsakoff et al., 2003). Mitigating these biases requires a thoughtful design of open-ended questions and a reflexive stance by the researcher to minimize personal influence. Additionally, using multiple interviewers and triangulating data with other sources can enhance the credibility of findings and minimize individual biases (Morse et al., 2002). Transparency about potential biases and employing validated interview protocols contribute to a more rigorous and unbiased interview research methodology. By acknowledging and addressing potential biases, the study sought to enhance the reliability and objectivity of the systematic review's findings.

Ethical Considerations

Maintaining ethical standards is paramount in inductive research, particularly in qualitative studies such as this one, which involves a commitment to ethical conduct across all research stages (Sandberg & Alvesson, 2011). Given the absence of direct human participants, potential risks during data collection were minimal (Sandberg & Alvesson, 2011). Ethical considerations primarily focused on avoiding plagiarism by ensuring the research originated from an authentic idea, and any information drawn from external sources, including prior studies, was meticulously credited through accurate citations (Sandberg & Alvesson, 2011). The inductive approach allowed for the extraction of pertinent information and data, facilitating the derivation of conclusions that

contribute to hypothesis generation supported by existing literature. This process, rooted in ethical principles, advanced the understanding of leadership as a psychological function for predicting effectiveness (Charmaz, 2014).

Interviewing leaders in research demands careful attention to ethical considerations. Firstly, informed consent is crucial, ensuring that leaders are fully aware of the research purpose, procedures, and potential implications (Berg & Lune, 2012). Confidentiality must be maintained to protect participants' identities and sensitive information, fostering trust (Hesse-Biber, 2017). Additionally, researchers should prioritize voluntary participation, respecting leaders' autonomy to decide whether to partake without facing consequences (Berg & Lune, 2012). Honest representation of the study's objectives and potential impact promotes transparency. The ethical principles of respect, beneficence, and justice underpin the entire process, safeguarding the well-being and rights of leaders involved in the research (American Psychological Association, 2017).

Summary

The chapter initiates by justifying the chosen research method and delves into a comprehensive examination of the study design, providing a crucial foundation for understanding the dissertation's development. A significant portion is dedicated to discussing the strategies employed for literature search, setting the stage for the upcoming literature review in Chapter 3. The chapter is also attentive to acknowledging the study's limitations and potential biases inherent in this level of scholarly work. Finally, it wraps up with a careful consideration of ethical concerns associated with the dissertation, emphasising the importance of ethical research conduct throughout the study. This chapter serves as a bridge, guiding readers through the rationale, design, literature groundwork, limitations, biases, and ethical considerations, offering a holistic perspective on the dissertation's framework.

Chapter 3: Literature Review

Organisation, Strategy, and Justification of the Study

This dissertation aims to investigate the integration of behavioural paradigms, trait theories, how cognitive distortion can interfere with leadership decisions, and personality-based characteristics to comprehend the psychology of effective leadership in a crisis. The introductory chapters set the stage, outlining the research's purpose and establishing the groundwork for the chosen methodology. This chapter delves into a comprehensive analysis of existing literature and studies related to behavioural paradigms, trait theories, and personality characteristics-based theories. By scrutinising these elements, the goal is to identify patterns and connections that contribute to a model explaining the intricate relationship between psychological theories and effective leadership. This in-depth exploration forms a critical step in advancing our understanding of leadership psychology, providing a solid foundation for the subsequent stages of the dissertation.

Leadership

Initially, leadership studies focused on heritable attributes to distinguish effective leaders. Early research, like that of Bass and Avolio (1994) and Blake and Mouton (1964), relied on the trait paradigm. However, subsequent psychological studies shifted focus to personal characteristics, including abilities, skills, demographics, and personality traits, as predictors of leadership effectiveness (Bolden et al., 2003; Cavazotte et al., 2012). Understanding leadership as a psychological process has become crucial, incorporating diverse theoretical perspectives and organisational psychology (Odoardi et al., 2015; Wang et al., 2012). This approach illuminates the evolving landscape of leadership research, considering both inherent traits and psychological processes in the assessment of effective leadership. In essence, contemporary leadership studies

acknowledge the interplay between innate qualities and the dynamic psychological aspects that shape effective leadership in organisational contexts.

Leadership Trait Paradigm

The previous emphasis on leadership effectiveness centered on the trait paradigm faced criticism for its limitations in exclusively focusing on inherent traits (Kafetzopoulos, 2021). This criticism prompted a shift away from a sole emphasis on traits to an exploration of leadership as a behavioral process. Scholars, recognising the importance of leader behaviour, delved into how behavioural patterns influence effectiveness (Bolden et al., 2003; Cavazotte et al., 2012). This shift resulted in the development of the behaviour paradigm, evident in theories like Fiedler's contingency model and Blake and Mouton's managerial grid (Datta, 2015). The behaviour paradigm, along with meta-analytic evidence, not only laid the groundwork for new leadership theories but also reinforced the idea that a leader's behaviours significantly predict effective leadership capacity (Datta, 2015). This paradigm has been integrated into transactional and transformational leadership theories, contributing to the assessment of leadership competence (Vito et al., 2014). Essentially, the evolution from the trait to the behaviour paradigm highlights the critical role of leadership behaviors in understanding and predicting leadership effectiveness.

Psychological Standpoint

In this dissertation, the psychological perspective on leadership effectiveness is dissected into three distinct levels: content, analysis level, and evaluation target. Leadership content pertains to task performance, encompassing both group and individual achievements. Beyond the task-oriented aspects, content also includes relational and affective criteria, delving into factors like satisfaction with leadership and overall leadership judgment (Datta, 2015). Leadership judgment

serves as an integrative measure that combines both relational and task-related elements of leadership effectiveness.

Moving to the analysis level, the dissertation explores conceptualizations of leadership across various dimensions, spanning individual, group, dyadic, and organisational levels (Judge et al., 2002). Examples range from studies focusing on individual leadership effectiveness (Kunze et al., 2013; Quinteiro et al., 2014) to those examining dyadic relationships or group-based performance (Mühlberger & Traut-Mattausch, 2015; Walumbwa et al., 2012).

Lastly, the evaluation target aspect involves scrutinizing leadership effectiveness with the leader as the focal point (Judge et al., 2002). This involves evaluating the leader's competence or other critical outcomes within the leadership effectiveness domain, such as group performance (Judge et al., 2002).

Cognitive Distortion Perspective

The psychological perspective of cognitive distortion in leaders making decisions revolves around understanding how cognitive biases and distortions impact the decision-making process, particularly in a crisis. Cognitive distortions, such as confirmation bias and overgeneralisation, can lead leaders to make flawed judgments, potentially affecting organisational outcomes. Research in this area explores the cognitive mechanisms underlying these distortions and their implications for leadership effectiveness. Three relevant references include Cristofaro & Giardino (2020) examination of leader biases and organisational outcomes, Dror (2020) integrative review on cognitive distortions in leader decision-making, and Luoma and Martela (2020) dual-process framework for understanding cognitive biases in leadership decisions. These studies contribute valuable insights to the psychological understanding of how cognitive distortions influence decision-making dynamics in leadership contexts.

In summary, the dissertation dissects leadership effectiveness into task and relational dimensions, explores different levels of analysis, and considers the leader as a central target for evaluation, whilst understanding how cognitive distortion does influence key leadership decisions, including in a crisis.

Styles of Leadership

In the examination of leadership, the discourse on leadership styles assumes a pivotal role and is scrutinized in the ensuing section. The plethora of studies delving into leadership provides valuable insights, offering varied definitions and classifications of leadership styles, as evidenced by the work of Walumbwa et al. (2011). It is imperative to highlight that effective leadership is not confined to a singular style, as articulated by Colbert et al. (2013) and Wagstaff et al. (2012). On the contrary, effective leaders typically exhibit adaptability, adjusting their approaches and styles in accordance with the nuances of the situational and relational context, as posited by Hassan et al. (2013) and Walumbwa et al. (2011). Consequently, the subsequent discussion will elucidate the array of leadership styles present in the literature, recognizing the dynamic and adaptable nature that characterizes effective leadership.

Group Leadership

In the realm of group leadership, the focus is on directing and guiding a specific group, such as organisational employees, toward common objectives. The leader assumes a central role in guiding and facilitating the participants' task performance, taking accountability for the group's overall outcomes (Hoffman et al., 2011). Group leadership is a crucial aspect of communication, extensively explored across psychology, business, and communication disciplines (Grundig & Ward, 2015; Hansbrough et al., 2015). Various facets of leadership are examined, encompassing theories, the qualities that effective leaders embody, and strategies for fostering leadership

competence. While an official leader may provide direction, the success of the group hinges on the diverse leadership roles undertaken by participating members, ensuring a multifaceted approach to achieving collective goals (Datta, 2015).

Group leadership is intricately tied to a high-status position within the group, a recognition that can be either informally or formally acknowledged by its members (Datta, 2015). This form of leadership is characterised by intricate communication patterns, beliefs, and behaviours influencing group operations and its ability to achieve specific tasks (Helms, 2012; Hoch & Kozlowski, 2014; Pless et al., 2012). Despite holding the position of a group leader, an individual may exhibit poor or no leadership qualities. Conversely, someone not officially recognized as a leader within the group might display exceptional leadership capabilities (Pless et al., 2012). To comprehend leadership effectiveness in the group context, it is crucial to delve into the pathways through which individuals assume leadership roles (Derue et al., 2011).

In the past, leadership often resulted from inheritance or the bestowal of leadership positions. Historical leaders were frequently perceived as possessing divine qualities (Derue et al., 2011). For example, in certain cultures, shamans were considered leaders due to their role in bridging the physical and spiritual realms (Judge et al., 2002). Military leaders, Queens, and Kings were commonly believed to be chosen and sanctioned by divine entities to guide a community. In contrast to historical leadership development, contemporary leaders are typically appointed or elected to specific positions of authority. Today's leaders elicit varying reactions, ranging from high respect to disdain or fear, contingent on their qualities and leadership style as perceived by their followers (Voon, 2011).

The study of group leadership examines designated and emergent leaders to understand the diverse roles and effectiveness within groups. Designated leaders are typically appointed or elected

by group members and formally recognised for their roles (Voon, 2011). The success of designated leaders is often measured by the endorsement and choice of other group members for leadership responsibilities (Goleman et al., 2016; Voon, 2011). In contrast, some individuals actively seek leadership positions driven by a desire to acquire and wield power in group and organisational settings (Grant et al., 2011). Notably, past leadership experiences may not always determine success in these pursuits. When groups lack a designated leader, they face the decision of either electing a leader or allowing one to emerge organically (Grant et al., 2011).

Directive Leadership

Directive leaders take on the crucial role of providing a psychological structure for their followers, offering clear expectations and maintaining a specific agenda and schedule. They guide and direct group members to effectively complete tasks, communicating procedures and rules for group operations. While closely associated with autocratic leadership, directive leadership is noted for its flexibility and nuance, allowing leaders to be directive without adopting an authoritarian stance (Carsten et al., 2010; Hoffman, Woehr, et al., 2011). The emphasis lies on offering direction, guidance, and a framework for task performance, fostering an environment where group members can work cohesively towards shared objectives (Avey et al., 2011).

Directive leadership is deemed effective when groups require clear guidance to initiate shared tasks, especially in time-sensitive situations that demand prompt decision-making (Hassan et al., 2013). However, within groups with a long history, diverse expertise, and extensive skills, this leadership style may be perceived as overly controlling or micromanaging (Jing & Avery, 2011; Landis et al., 2014). In these complex situations, participative leadership, which involves collaboration and shared decision-making, is often considered more suitable (Lian et al., 2012).

Participative Leadership

Participative leaders actively involve group members in decision-making processes, seeking and considering their suggestions and opinions (Lian et al., 2012). This engagement aligns individual goals with organisational or group objectives, enhancing productivity (Bortoluzzi et al., 2013; Ferraris, 2015). Participative leadership is also crucial for fostering socialization among group members, as they feel instrumental in shaping rules and norms for group tasks, contributing to a cohesive working environment (Lam et al., 2015). This approach emphasizes leadership as a psychological process, predicting effectiveness through diverse processes and member socialization.

Supportive Leadership

Supportive leaders prioritize the emotional well-being of their group members, cultivating a positive and friendly group climate (Oostlander et al., 2014; Schaubroeck et al., 2011). These leaders demonstrate effective qualities, such as reducing frustrations and stress within the group, fostering positive feelings toward tasks and fellow members, ultimately contributing to shared group success (McGurk et al., 2014; Shin et al., 2016). Acting as role models, supportive leaders play a pivotal role in creating and maintaining a favorable relational climate for task performance (McGurk et al., 2014). They empower group members to engage in relational role behaviors guided by established group norms, thereby enhancing social cohesion within the group context (Oostlander et al., 2014; Wang et al., 2014).

A supportive leadership approach is particularly crucial in groups that prioritize relationships over tasks (Hoffman, Bynum, et al., 2011). While maintaining positive group relationships is essential for relational-oriented groups, task-oriented groups often require more focus on tasks than social relations to perform optimally (Oostlander et al., 2014; Wang et al.,

2014). In task-oriented groups led by competent participative or directive leaders, incorporating a supportive leadership style becomes necessary to address emotional stress among members, preventing it from negatively impacting group cohesion and climate (McGurk et al., 2014; Shin et al., 2016).

Achievement-oriented Leadership

Achievement-oriented leaders prioritize excellence by setting and pursuing challenging group goals (Shoss et al., 2015). This leadership style involves persistent monitoring of group progress with the aim of achieving maximum improvement (Colbert et al., 2012). Leaders exhibiting achievement-oriented qualities express confidence in their members' ability to meet high expectations in task performance. They employ a systematic approach to social comparison and stay informed about the success of other high-performing groups (Stentz et al., 2012; Ulrich et al., 2013). Considered a form of visionary or transformational leadership, achievement-oriented leadership is associated with increased levels of organisational success (Ulrich et al., 2013).

The effectiveness of achievement-oriented leadership hinges on group dynamics, particularly in groups intentionally formed to achieve specific objectives (Ulrich et al., 2013). Such groups typically consist of members with specific skills and competencies related to the group tasks, and leaders are chosen based on their required expertise and reputation (Colbert et al., 2012). Even if group members haven't previously worked with the leader, mutual respect is expected to exist between them (Shoss et al., 2015; Ulrich et al., 2013). In this context, achievement-oriented leadership thrives when there is a shared commitment to excellence and a recognition of individual and collective capabilities within the group.

Servant Leadership

Robert Greenleaf introduced servant leadership in 1970, emphasising a philosophy of serving first and then leading (Doraiswamy, 2012; Pawar et al., 2020). A servant leader stands out for prioritizing the needs of others (Doraiswamy, 2012). Key characteristics include active listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of others, and community building (Jones, 2012). In essence, servant leadership focuses on selfless service and the well-being of those being led.

Servant leadership is characterized by a supportive and friendly approach, demonstrating concern for the needs of staff members (Zhang & Lin, 2012). Leaders embracing this style exhibit their traits through interactions with followers and other leaders in the organisation, emphasising the commitment to the growth of people, stewardship, and community building. This leadership approach is considered more effective as it reflects a responsible use of a leader's power (Zhang & Lin, 2012). A distinctive aspect of servant leadership is the belief that serving is more important than occupying a formal leadership position, with leaders prioritizing the success of their followers over personal motivations. In this model, leaders meet the desires of followers rather than followers serving the desires of the leader (Mittal & Dorfman, 2012). Exemplary figures of servant leadership include Mother Teresa, Mohandas Gandhi, Moses, and Jesus Christ (Parris & Peachy, 2012). Servant leadership proves effective in inspiring followers to achieve organisational goals (Boone & Makhani, 2012).

Emotional Intelligence for Effective Leadership

Effective leaders need to demonstrate emotional intelligence, which involves understanding and managing both their own emotions and those of their followers (Goleman et al., 2013). Emotional intelligence plays a crucial role in leadership effectiveness by assessing

competencies like social intelligence to understand the significance of interpersonal behaviors in adapting to effective leadership (Goleman et al., 2013). This capability allows leaders to perceive, evaluate, and express emotions appropriately in various situations, contributing to intellectual growth and the development of emotional knowledge (Goleman et al., 2013). In summary, emotional intelligence enhances leaders' ability to navigate and respond to emotions effectively in leadership practice.

The contemporary leadership landscape requires leaders to possess emotional intelligence due to the evolving demands they face. Leaders are now tasked with leading and managing empowered groups of followers, necessitating leadership practices beyond traditional cooperative, consultative, and democratic styles (Goleman et al., 2013). Modern leadership expectations involve engaging followers through effective communication of a compelling purpose and vision, fostering follower freedom and autonomy, and taking responsibility for all outcomes, including failures (Cavazotte et al., 2012). In essence, emotional intelligence is crucial for leaders to navigate and excel in the complex and dynamic challenges of contemporary leadership roles.

Contemporary leadership requirements emphasize the creation of opportunities for growth, glory, and challenge, highlighting the need for leaders to mentor and coach followers to reach their optimal potential (Cavazotte et al., 2012). Leaders are also tasked with fostering team spirit and inclusion while simultaneously enhancing individual acknowledgement and recognition for higher performance. These multifaceted leadership demands underscore the pivotal role of emotional intelligence in ensuring leaders' effectiveness in their day-to-day activities (Goleman et al., 2013). Emotional intelligence equips leaders with competency in five crucial areas: self-awareness, self-regulation, self-motivation, empathy, and social skills.

Self-awareness

The first component of emotional intelligence, self-awareness, involves leaders having a clear understanding of their own emotions and the impact of those emotions and actions on their followers (Lam & O'Higgins, 2012; Ramchunder & Martins, 2014). Self-awareness is crucial for effective leadership as it enables leaders to identify their strengths and weaknesses. Having an accurate understanding of personal strengths and limitations contributes to leaders' ability to demonstrate humility, allowing them to acknowledge their shortcomings and pursue self-improvement (Lam & O'Higgins, 2012; Ramchunder & Martins, 2014).

Self-regulation

The second aspect of emotional intelligence, self-regulation, involves leaders having the ability to manage their emotions and actions effectively. Through self-regulation, leaders can refrain from making impulsive and emotionally driven decisions (Cavazotte et al., 2012; Goleman et al., 2013; Sadri, 2012). Additionally, self-regulation enables leaders to avoid stereotyping and engaging in verbal attacks against their followers. Leaders who excel in self-regulation demonstrate the capability to align their behavior with their values, exercising optimal control in various situations. Furthermore, self-regulation is evidenced through leadership flexibility and the ability to maintain a commitment to individual accountability (Goleman et al., 2013; Lam & O'Higgins, 2012; Sadri, 2012).

Self-motivation

The third competency area of emotional intelligence, self-motivation, is crucial for effective leadership (Goleman et al., 2013). Leaders who are self-motivated set high standards for quality work and contribute to improved follower productivity, enhancing overall success (Sadri, 2012). To enhance self-motivation, leaders should re-examine the reasons for pursuing a particular

job, reflecting on their initial goals and motivations (Lam & O'Higgins, 2012). This self-reflection helps leaders maintain enthusiasm and drive in their roles, fostering a positive and productive work environment.

Empathy

Empathy, the fourth competency in emotional intelligence, is crucial for effective leadership (Cavazotte et al., 2012; Ramchunder & Martins, 2014). Demonstrating empathy allows leaders to manage teams effectively, develop followers, and foster fair engagement. Empathetic leaders listen to their followers, offer constructive feedback, and inspire loyalty and respect (Lam & O'Higgins, 2012; Ramchunder & Martins, 2014). This empathic approach enhances leadership effectiveness by creating a positive and supportive environment within the team or organisation.

Social skills

The final competency in emotional intelligence for effective leadership is social skills (Ramchunder & Martins, 2014; Sadri, 2012). Leaders with strong social skills excel in communication, allowing them to receive and process information effectively. They leverage their expertise to garner support from followers and demonstrate proficiency in change management and conflict resolution (Sadri, 2012). These social skills contribute to leadership effectiveness, fostering positive relationships and successful team dynamics.

Essential Qualities of Leaders

Having explored leadership, leadership styles, and emotional intelligence, the review now delves into the essential qualities of effective leaders. Key criteria include honesty, integrity, delegation skills, accountability, creativity, effective communication, attentive listening, strong relational skills, and motivational prowess. Leaders lacking these traits may face obstacles in their

effectiveness. The section also examines how inherent attributes and demographic factors can influence effective leadership.

Accountability

With accountability, there is a need for leaders to accept and take responsibility for their own actions (Andrews & Boyne, 2010; Giessner, van Knippenberg, van Ginkel, & Sleebos, 2013). When a leader demonstrates accountability, this assists in determining how effective leadership is required by leaders to avoid making excuses for the outcomes of their teams or organisations (Andrews & Boyne, 2010; Cranston, 2013; Giessner et al., 2013). When a leader accepts liability of undesirable outcomes, the leader is then able to undertake corrective measures to address the main concern, rather than symptoms. The result, accountability is attended by effective problem-solving strategies which are aimed at restoring the organisational or teams capacity working towards achieving goals (Grant et al., 2011; Grundig & Ward, 2015). From a political science perspective, there is an underscore of the importance of leaders, whether in government or business, being accountable for their actions, particularly regarding the utilization of public and natural resources (Andrews & Boyne, 2010; Hoch & Kozlowski, 2014). This perspective emphasises the need for transparency, responsibility, and ethical governance in managing and allocating resources to ensure public trust and sustainable practices.

Honesty and Integrity

An effective leader exemplifies outstanding character, fostering trust and reliability in leadership (Boies et al., 2015; Goleman et al., 2013). Honesty and ethical conduct are crucial for taking responsibility, building goodwill, and inspiring followers to reach their fullest potential (Hassan et al., 2013; Mahsud et al., 2010).

Effective leaders, instead of adopting a position of superiority, lead by example (Cho & Dansereau, 2010; Dabke, 2016; Ewan et al., 2013). For instance, if leaders expect integrity from their followers, they must embody integrity themselves, focusing on shared strategic goals (Cho & Dansereau, 2010; Ewan et al., 2013). Maintaining values like integrity and honesty allows leaders to serve as role models and gain trust (Vito et al., 2014). These qualities are crucial for effective leadership and are tied to political science, representing the need for trustworthy leaders in public representation (Cho & Dansereau, 2010).

Delegation

Leadership involves trusting team members with the organisational vision (Van Knippenberg, 2011). This ability showcases leadership strength, not weakness. Effective leaders delegate tasks to appropriate teams or departments for organisational growth, ensuring timely task completion (Houghton et al., 2015; Jayakody Gamage, 2015). Delegation is a key factor in leadership effectiveness, preventing delays associated with task accumulation (Van Knippenberg, 2011).

Delegation involves recognizing and leveraging the team's strengths for the desired goal (Choy, McCormack, & Djurkovic, 2016). Leaders assign tasks based on members' interests and abilities, leading to increased efficiency and success rates (Choy et al., 2016). Through delegation, leaders gain extra time for higher-level tasks, enhancing organisational productivity (Ulrich et al., 2013; Van Knippenberg, 2011). In summary, effective leaders establish a culture of delegation to enhance overall organisational productivity (Choy et al., 2016; Ulrich et al., 2013).

Communication

Effective leaders regularly communicate their vision and mission to maintain focus among their followers (Mahsud et al., 2010; Mayfield & Mayfield, 2017). While written communication

is common, effective leaders also prioritize face-to-face interactions with team members. This approach ensures that followers are well-informed about organisational activities and desired success levels (Men, 2014; Ruben & Gigliotti, 2016). Effective communication allows leaders to distinguish truth from fiction, improving team efficiency, and provides opportunities for career counseling and mentorship to foster leadership development (Mahsud et al., 2010; Men, 2014; Ruben & Gigliotti, 2016).

Creativity

Effective leaders possess the ability to explore diverse strategies for making informed decisions, particularly in the face of significant challenges related to task performance (Nixon et al., 2012; Wilson, 2012). These leaders acknowledge their crucial role in providing guidance to the team to overcome obstacles and achieve common goals efficiently. When confronted with major challenges, effective leaders quickly evaluate available alternatives, make thoughtful decisions, and may seek input from team members to arrive at suitable conclusions (Mathisen et al., 2012; Nixon et al., 2012; Oliver & Ashley, 2012; Wilson, 2012).

Motivational Traits

Motivational traits were identified as critical attributes of highly committed and effective leaders in the study. Motivated leaders have the capacity to control their actions in various situations while focusing on maintaining self-efficacy, energy, and self-regulation (Colbert et al., 2014). Energy, in particular, is a crucial predictor of leadership effectiveness, enabling leaders to develop passion and persistence in their tasks (Colbert et al., 2014). This form of energy contributes to organisational commitment among team members, enhancing productivity. Leaders without such energy may struggle to serve as effective role models for their followers. On the other hand, self-efficacy was recognized as a vital attribute that enables leaders to stay prepared to face

emerging challenges (Datta, 2015; Grundig & Ward, 2015). While some leadership challenges are difficult to address, self-efficacy empowers leaders to demonstrate the determination, confidence, and character needed to take risks and tackle uncertainties.

Listening

Effective leaders prioritise listening as a key aspect of communication, demonstrating the ability to consider diverse ideas and articulate why certain concepts may not be accepted (Caligiuri & Tarique, 2012; Colwell, 2013). This practice fosters an environment where new ideas can be generated and sustained, reflecting the qualities of exceptional leadership (Caligiuri & Tarique, 2012). The emphasis on listening contributes to clear and open communication lines, highlighting the psychological factors that play a crucial role in the development of effective leaders.

Sincerity is a crucial quality that effective leaders must embody in their interpersonal relationships. This entails genuinely caring about other people, where a leader's actions and words consistently convey sincerity (Andrews & Boyne, 2010; Jones, 2012). When team members encounter challenges, an effective leader conducts thorough research to understand the extent of the issues. This information is pivotal for identifying appropriate solutions, ensuring followers remain productive despite potential obstacles (Andrews & Boyne, 2010).

Furthermore, effective leaders must possess the ability to address emerging conflicts that could impede the achievement of shared objectives. Leaders should be attentive to the various conflicts that arise within teams comprising diverse members (Avey et al., 2011). Addressing these conflicts comprehensively is crucial for enhancing cohesion and coordination, thereby sustaining high productivity (Datta, 2015; Grundig & Ward, 2015). Through the adoption of effective interpersonal skills responsive to the diverse needs of followers, leaders can fulfill their roles effectively, contributing to improved performance and success (Avey et al., 2011).

Relational Skills

Relational skills are essential predictors of leadership effectiveness as they allow leaders to address the issues of organisational conflict, unpredictable change, and unexpected opportunities (Colbert et al., 2014). For instance, with personality traits that enhance relational skills, leaders can use emotional appeal among their followers to promote the capacity to attain a particular vision (Colbert et al., 2014). Additionally, according to the study findings, leaders must develop elaborate relational skills, such as social astuteness, empathy, and the ability to create (Andrews & Boyne, 2010; Cranston, 2013; Giessner et al., 2013). Nonetheless, leaders must possess adequate motivational skills, such as self-efficacy, to ensure their capacity to apply relational skills in attaining leadership effectiveness (Giessner et al., 2013).

Purpose

Leadership and purpose are interconnected concepts that underpin meaningful organisational endeavours. Leadership entails guiding and influencing individuals toward shared goals, while purpose defines the organisation's reason for existence, providing direction and meaning. Effective leadership is aligned with a clear sense of purpose, fostering a shared vision that inspires and motivates team members. Leaders who articulate and embody a compelling purpose instill a sense of direction and significance, guiding their teams toward common objectives (Dempster, 2019).

Research underscores the significance of purpose-driven leadership in improving organisational performance and employee engagement (Lips-Wiersma & Morris, 2009). When leaders align their actions with a broader purpose, it cultivates a sense of meaning and fulfillment in the workplace, fostering higher levels of commitment and productivity among team members (Dempster, 2019; Lips-Wiersma & Morris, 2009).

Moreover, purpose-driven leadership is instrumental in steering through challenges and uncertainties. A clearly defined purpose acts as a compass during decision-making, aiding leaders and teams in maintaining focus on their overarching goals (Collins & Porras, 1996). The notion of being "built to last" implies that enduring organisations are guided by a strong sense of purpose, contributing to sustained success (Collins & Porras, 1996).

In summary, effective leadership, intertwined with a clear sense of purpose, creates a powerful synergy within organisations. The references cited, including works by Dempster (2019), Lips-Wiersma and Morris (2009), and Collins and Porras (1996), illustrate the significance of purpose-driven leadership in fostering motivation, engagement, and long-term success.

Intrinsic Attributes of Authentic Leaders

Intrinsic attributes are a critical psychological aspect used to explain leadership effectiveness (Hassan et al., 2013; Kunze et al., 2016; López-Domínguez et al., 2013). Leaders like U.S. President Dwight D. Eisenhower are considered to have distinctive leadership qualities that were optimal when the leader took a position of power. The inherent leadership abilities are shaped mainly by characteristics such as charisma, compassion, and steadiness in stressful situations (Hansbrough et al., 2015). Charisma allows leaders to inspire others, compassion enables them to understand the needs of individuals, and steadiness, or level-headedness, helps leaders avoid emotional influence on decision-making (Hansbrough et al., 2015).

Besides the distinctive qualities that inspire leadership practice, cultured qualities have a significant role in defining leadership effectiveness. These qualities are acquired through practices and conventional learning processes (Hansbrough et al., 2015; Mayfield & Mayfield, 2017; Piccolo et al., 2012). Learned qualities include effective communication, the capacity to motivate followers, and confidence (Piccolo et al., 2012). With these skills, leaders can influence their

followers effectively toward attaining specific, shared goals (Yukl, 2012). Researchers argue that leaders are born with certain inherent qualities that are then nurtured through learning for use in leadership roles (Yukl, 2012).

Inherent leadership qualities are crucial components of effective leadership across diverse sectors of society, including governmental, educational, professional, business, and military organisations (Yukl, 2012). Studies show that not all leaders exercise effective leadership, but those who do typically possess a particular set of skills and qualities that enable them to direct the activities of their followers and achieve goals or solve problems (Yukl, 2012). Some qualities observed in effective leaders include self-confidence, intelligence, motivation, achievement orientation, social acuity, inspiration, flexibility, and a good understanding of the risks associated with current tasks (Derue et al., 2011). These six core theories are investigated and compared to identify elements that can predict effective leadership.

Demographic Factors

The examination of non-theoretical factors crucial for effective leadership concludes with a focus on demographic factors. These factors, encompassing race, gender, age, income, marital status, and educational achievement, serve to characterize individuals or populations. The inclusion of these factors in the literature review stems from viewing them as a set of traits or behaviours that can contribute to understanding effective leadership. Unfortunately, the limited number of studies within demographic factors primarily centered on the relationship between gender and emotional intelligence in leadership studies (ElKhouly et al., 2014). Despite findings suggesting comparable leadership effectiveness between men and women, with variations in leadership styles, concerns have been raised regarding the accuracy of gender as a predictor of effective leadership (Grant et al., 2011; Jackson et al., 2014; Paustian-Underdahl et al., 2014).

Although research on demographic factors in this field is sparse, recognizing the role of gender as a characteristic is crucial in the context of identifying effective leadership. The subsequent focus of the review will delve into major theoretical approaches within the psychology of leadership.

Trait Leadership Theoretical Approach

The theoretical examination begins with trait leadership, emphasising the necessity of integrating leadership traits and behaviours for predicting effectiveness (Derue et al., 2011). Despite the acknowledgment of this integration, prior research lacks clarity on whether leadership traits and behaviours are supplementary or complementary (Smith & Chenoweth, 2015; Yukl, 2012). This gap poses a challenge in developing an efficient model for determining leadership effectiveness. Broad literature reviews categorize leadership-related traits into demographics, task performance traits, and interpersonal attributes, while leadership behaviours encompass task processes, change, and relational dynamics (Nichols, 2016; Derue et al., 2011).

Demographic traits in leadership encompass elements like gender, education, experience, and physical attributes, examined to gauge their impact on leadership effectiveness (Grant, Francesca, & Hofmann, 2011; Paustian-Underdahl et al., 2014). Among these, gender has received extensive scrutiny in leadership studies (ElKhouly et al., 2014; Paustian-Underdahl et al., 2014; Singh et al., 2012). A meta-analysis by Borgmann, Rowold, & Bormann (2016) indicates that men and women exhibit comparable leadership effectiveness, though with variations in leadership styles. This challenges the use of gender as a precise predictor of effective leadership (Grant et al., 2011; Jackson et al., 2014).

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In addition to intelligence, conscientiousness, a leader's emotional stability, and readiness for new leadership experiences are crucial elements describing a leader's approaches and reactions to organisational work (Datta, 2015). Conscientiousness measures a leader's dependability, dutifulness, and achievement orientation (Shoss et al., 2015; Walumbwa et al., 2012), reflecting thoughtful planning and structure in leadership. The leader's readiness for new experiences involves attributes like curiosity, creativity, and open-mindedness to novel approaches (Hartnell et al., 2011; Hassan et al., 2013). Emotional stability, another critical trait, signifies a leader's ability to maintain calmness and avoid emotional distress when confronting challenging issues and tasks (Datta, 2015; Hartnell et al., 2011). These task performance-related traits are pivotal for predicting effective leadership.

On the contrary, interpersonal attributes constitute a crucial category of leadership traits influencing leadership effectiveness by shaping leaders' approaches to various social and interactive situations (Le Fevre & Robinson, 2015; Mencl et al., 2016). This category includes personality traits such as agreeableness and extraversion. Additionally, interpersonal attributes encompass social functioning skills, particularly communication skills essential for effective leadership (Hoffman, Woehr, et al., 2011). Agreeableness and extraversion are extensively studied interpersonal attributes, showing positive correlations with effective leadership (Hoffman, Woehr, et al., 2011).

Cognitive Theoretical Approaches to Effective Leadership

The second theoretical approach discussed is cognitive approaches to leadership, a major component explored broadly in contemporary leadership research (Mumford et al., 2017; Neck et al., 2013). Cognitive theories emphasize the importance of cognitive mediation and thought processes in predicting effective leadership (Kerwin & Bopp, 2014; Schaubroeck et al., 2011). These theories highlight the role of cognitive approaches in developing and regulating functional relations among leaders and followers (Schaubroeck et al., 2011). Individuals' conscious experiences are shaped by biases related to their assumptions, perceptions, and beliefs about the world, influencing interpersonal practices and judgments in organisational interactions (Mumford et al., 2017; Neck et al., 2013; Bhansing et al., 2012).

The cognitive psychology perspective has been central in recent studies of managerial skills and task performance (Yukl, 2012). Terms like knowledge structures, schemata, and scripts have emerged from cognitive psychology to explain the fundamental factors influencing leaders' capacity to interpret and adapt to external and internal stimuli (Kauppila & Tempelaar, 2016; Tu, Lu, & Yu, 2017). Knowledge structures and schemata play a major role in determining organisational leaders' capacity to transform information into the action necessary for improved task performance (Mumford et al., 2017; Neck et al., 2013).

Based on the cognitive psychology perspective, leadership practices, including reality-oriented and constructive approaches to problem-solving, are considered critical predictors of leadership effectiveness (Sadeghi & Pihie, 2012). Cognitive-based adaptive responses are important competencies underlying effective leadership and management practices. With adaptive coping responses, leaders regulate cognitive expectations, beliefs, intentions, and emotional reactions, impacting leadership effectiveness (Sadeghi & Pihie, 2012; Neck et al., 2013; Yukl,

2012). Cognitive theories evaluate leadership as a psychological process, recognizing psychological attributes influencing a leader's effectiveness in various organisational settings (Bhansing et al., 2012; Sadeghi & Pihie, 2012; Schaubroeck et al., 2011; Yukl, 2012).

Fiedler's Contingency Theory

Another theoretical approach discussed is Fiedler's contingency theory (1967), suggesting no specific leadership style is universally best across all situations. The theory posits that situations prompt leaders to adopt approaches suited to specific factors in each situation (Walumbwa et al., 2011). For instance, in routine task situations, a directive leadership approach may be most effective, promoting optimal employee performance (Meirovich & Gu, 2015). In dynamic organisational settings, the participative approach, fostering maximum interactions between leaders and employees, is deemed most suitable (Walumbwa et al., 2011; Waters, 2013).

Contingency theory examines three situations that significantly shape leadership practices, portraying leadership as a psychological process crucial for predicting effectiveness (Voon, 2011). The first situation is leader-member relations, indicating the positive interaction between leaders and managers to enhance task performance (Voon, 2011; Walumbwa et al., 2011; Waters, 2013). The second situation involves task structure, where job performance depends on the level of job structure, varying from highly structured to minimally structured (Voon, 2011; Walumbwa et al., 2011; Waters, 2013). Lastly, position power influences leadership effectiveness by indicating the leader's authority level (Voon, 2011; Walumbwa et al., 2011; Waters, 2013).

According to the contingency-situational theory, managers exhibit high leadership effectiveness in situations characterized by favourable leader-follower relationships, either strong or weak position power, and structured jobs (Walumbwa et al., 2011; Yukl, 2012). Similarly, organisational leaders tend to be highly effective in situations with unstructured jobs but strong

position power (Yukl, 2012). Situations with moderate group member relations and unstructured tasks also provide a conducive environment for effective leadership (Van Knippenberg, 2011). Thus, evaluating leadership activities as components of psychological processes in diverse organisational situations aids in predicting leadership effectiveness based on each unique context.

In the contingency theory, task structure, leader-follower relations, and position power are crucial predictors of effective leadership, influencing a leader's ability to exert control over organisational or workplace situations (Hoffman et al., 2011). Leader-follower relations encompass elements such as dependability, loyalty, and the support leaders receive from their followers (Mencl et al., 2016; Michaelis et al., 2010). Favourable leader-follower relations enable leaders to structure organisational tasks, establishing mechanisms for rewarding or punishing followers based on performance (Müller & Turner, 2010; Nixon et al., 2012). Conversely, unfavourable leader-follower relations, combined with unstructured tasks, undermine the leader's authority, impeding effective leadership (Hoffman et al., 2011).

Task-motivated leaders derive satisfaction and pride from successfully accomplishing organisational tasks (Piccolo et al., 2012; Popper, 2013). Conversely, relationship-motivated leaders focus on building strong interpersonal relations and fostering effective team development for the entire organisation (Hassan et al., 2013). The theory suggests that organisational leadership styles cannot be universally classified as either good or bad, as leaders tend to prefer specific styles (Hassan et al., 2013; Sadeghi & Zaidatol, 2012). For instance, task-motivated leaders are deemed effective for achieving major success in task performance, such as gaining a competitive organisational advantage or successful sales promotion. In contrast, relationship-motivated leaders are considered effective after achieving increased levels of customer satisfaction and a positive organisational image across the market (Stentz et al., 2012). Therefore, applying the contingency

theory to describe leadership as a psychological process provides insights into the diverse personality attributes that shape leadership effectiveness in organisations and groups (Hassan et al., 2013).

The 5-Factor Model of Personality

The five-factor model of personality (FFM), also known as 'the Big Five,' is a personality model included in this review (Weiss et al., 1967). FFM identifies five broad and relatively independent dimensions of personality: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Two approaches, the lexical approach and the personality questionnaires approach, have been employed in studying personality within this model (Tett et al., 1991). The lexical approach involves using ordinary language trait terms to agree on the five factors. For instance, Cattell (1946) systematically categorised personality terms into synonym groups and constructed rating scales, leading to the identification of factors such as urgency, agreeableness, dependability, emotional stability, and culture by Tupes and Christal (1961). This discovery sparked significant interest in the five-factor model among researchers at the time (Digman, 1990).

The personality questionnaires approach, which played a significant role in the history of personality research, involves measuring personality through questionnaires with scales designed for practical applications or evaluating constructs derived from personality theory (Goldberg, 1971). Initially, the focus was on two factors, neuroticism and extraversion (Eysenck & Eysenck, 1964; 1976). Later, openness to experience and conscientiousness were proposed (Costa & McCrae, 1976; 1980; Tellegen & Atkinson, 1974). The fifth dimension, agreeableness, emerged in Leary's (1957) analyses. While the questionnaire approach examined characteristics of theoretical

interest to personality psychologists, the significance of the five factors was not revisited until the 1980s.

In a comprehensive review, Digman (1990) examined the theoretical structure of personality and found a convergence of views for the five identified factors underlying a multitude of personality scales. His work revealed how the five-factor model explained Cattell's extensively studied trait variables. For example, Norman (1963) reported that these five major factors were adequate to account for a large number of personality traits, or Digman and Takemoto-Chock (1981) concluded that the five factors represented an impressive theoretical structure. In the same year, Goldberg (1990) conducted three studies examining the generality of the five-factor structure. College students were asked to describe themselves or their peers using anywhere from 339 to 1,431 trait adjectives. The results provided sufficient evidence that the five-factor structure was consistently recovered whether self or peer descriptions were used. In general, the results of both Digman and Goldberg's studies suggested that the five-factor model has offered a valuable set of very broad dimensions that represent individual differences, and these five factors could be measured with high reliability and remarkable validity.

In summary, personality theorists have employed both ordinary language adjectives and personality questionnaires to identify essential factors of personality. While the lexical approach focused on the analysis of personality traits, the questionnaires approach confirmed, enhanced, or qualified the personality structure. The FFM represents five broad dimensions, with each dimension consisting of specific traits. It is important to note that the model does not imply that individual differences can be reduced to five dimensions but rather provides a general set of personality traits.

Extraversion

As outlined by Depue and Collins (1999), one of the central characteristics of extraversion is interpersonal engagement, encompassing traits like sociability and agency. Sociability involves valuing close interpersonal relationships, expressing warmth, and being affectionate. On the other hand, agency reflects social dominance, assertiveness, and a drive to achieve goals. Empirical evidence indicates a significant correlation between extraversion traits and positive affectivity, such as experiencing rewards (Costa & McCrae, 1980). Additionally, extraverts tend to emphasize the importance of intrinsic factors in the work environment, while also acknowledging the value of certain extrinsic factors (et al., 2002).

Neuroticism

While extraversion is linked to positive affectivity, neuroticism is associated with negative affectivity. As defined by Costa and McCrae (1992), neuroticism is a significant aspect of personality that contrasts the adjustment of emotional stability with the maladjustment of negative emotionality. Regarding job satisfaction, neuroticism has been identified as the strongest and most consistent predictor, showing a negative relationship (Judge et al., 2002). This aligns with Moyle's (1995) suggestion that individuals scoring high on negative affectivity tend to perceive work negatively, leading to low job satisfaction. The negative relationship implies that an increase in job satisfaction corresponds to a decrease in neuroticism.

Conscientiousness

Conscientiousness refers to an individual's tendency to be achievement-oriented and responsible. This trait encompasses qualities such as competence, self-discipline, deliberation, and adherence to rules (Costa et al., 1991). Individuals with high conscientiousness are inclined to set and commit to goals. Research has demonstrated that conscientiousness is not only the best

predictor of job performance (Barrick & Mount, 1991) but is also significantly associated with both intrinsic and extrinsic job satisfaction factors (et al., 2002).

Agreeableness

Agreeableness pertains to how individuals vary in their orientations toward interpersonal relationships. Unlike the extraversion trait, which reflects social influence, agreeableness focuses on maintaining positive interpersonal bonds with others. Moreover, agreeableness exhibits the strongest connection not only to overall job satisfaction but also across various job satisfaction facets, whereas extraversion and conscientiousness are correlated with only certain aspects of satisfaction (Franek & Vecera, 2008). Essentially, individuals with agreeable traits tend to be cooperative, unselfish, straightforward, and modest (Costa et al., 1991). Consequently, these individuals are more likely to experience higher levels of satisfaction due to their ability to get along well with others.

Openness to Experience

Openness to experience reflects individuals' willingness to adjust their attitudes and behaviours when exposed to new ideas or situations (Digman, 1990). Compared to the other four personality traits, openness has the weakest association with job satisfaction. Additionally, when controlling for other traits, openness is negatively correlated with job satisfaction (Zimmerman, 2008). This implies that individuals with high openness may be less satisfied with their job. This observation can be explained by Maertz and Griffeth's (2004) theory, which suggests that individuals with high openness may lose interest in their current job and begin seeking new positions.

Wisdom, Intelligence & Creativity Synthesized

The five-factor model provided the first framework for leadership studies this discussion explored; the Wisdom, Intelligence & Creativity Synthesized (WISC) framework explores diverse leadership aspects, such as problem-solving, generation of ideas, and accurate judgment and their importance toward predicting effective leadership. Additionally, the big five personality framework serves an essential role in predicting leadership effectiveness by indicating the diverse personality traits and their effects on leadership behavior (Eberly et al., 2013; Endres & Weibler, 2017).

Moreover, findings from the leadership effectiveness study demonstrate the importance of the cluster of skills frameworks in defining the important types of leadership styles required at diverse organisational contexts. These leadership styles are identified based on the leader's specific skill sets, thereby indicating the predictability of leadership effectiveness based on psychological attributes (Eberly et al., 2013). The last leadership effectiveness prediction framework explored in the study involves the strataplex framework, which elaborates the cluster of skills frameworks with the aim of specifying the abilities required by leaders at different levels to ensure their effectiveness in meeting daily obligations (Eberly et al., 2013).

The four identified leadership frameworks were explored in line with leadership theories to determine their centrality in the prediction of leadership effectiveness. From the results obtained from the study, the WICS framework presented diverse components indicating the importance of psychological attributes in leadership effectiveness prediction (Eberly et al., 2013). Such components include the leaders' factual knowledge developed through studying, the experiential knowledge attributed to the leader's lifespan, and the procedural knowledge with which to address

life events (Eberly et al., 2013). Other components include the relativistic knowledge linked to goals, values, life priorities, and the capacity to manage uncertainty in leadership.

The learning findings indicate that intelligence is an important factor in the prediction of leadership effectiveness as it allows leaders to identify and implement creative solutions to diverse problems (Antonakis & House, 2014). Equally, creativity covers the leader's capacity to develop quality and new ideas relating to specific situations. As a result, creativity attributed to leaders' traits predicts leadership effectiveness by allowing leaders to develop important skills necessary to manage ideas aimed at influencing followers to perform their duties effectively (Antonakis & House, 2014). The underlying skills needed for creativity include problem solving abilities, problem redefinition, creation of a stimulating environment, willingness to engage in intellectual growth, risk-taking capabilities, and tolerance for uncertainty and ambiguity are attributed to the personality qualities necessary to predict leadership effectiveness.

The Behavioural School to Leadership Effectiveness

The literature review explores two prominent schools of the psychology of leadership, commencing with the behavioural school. In the context of studying leadership behaviours as integral psychological components for predicting leadership effectiveness, the study considers four distinct groups of leader behaviours. These groups encompass task-oriented, relational-oriented, change-based, and passive leadership behaviours (Hu & Liden, 2011).

In addition to dissecting the role of each of these leader behaviours, ongoing evaluations have sought to understand how they intersect and influence leadership collectively. The examination of their interplay aims to identify predictors of effective leadership (Dabke, 2016; Hu & Liden, 2011; Park, Miao, & Kim, 2015). In essence, the literature scrutinizes the multifaceted nature of these leadership behaviours and their combined impact on effective leadership.

Task-oriented behaviour constitutes the initial category of leadership behaviours, encompassing the initiation of leadership structure and the adoption of transactional leader behaviours, specifically contingent reward and management by exception-active (MBEA) (Derue et al., 2011). The initiation of leadership structure involves the identification and delineation of behaviours associated with managing relationships among group members. This includes the coordination of group members' actions, the establishment of standards for task performance, and the encouragement of group members to fulfill their tasks according to the established standards (Jing & Avery, 2011).

Leaders who effectively initiate both the leadership structure and contingent rewards contribute to a comprehensive understanding of task performance expectations and standards. These established performance standards and expectations, in turn, serve as tools to influence followers' motivation, commitment, and behaviour. Additionally, the leadership structure and the application of MBEA enable leaders to address deviations from performance expectations through established routines (Avolio & Yammarino, 2013). In summary, task-oriented behaviour involves the systematic initiation of leadership structures and the implementation of transactional leader behaviours to guide and influence followers in meeting performance expectations.

Relational-oriented behaviours form the second category of leadership behaviours, encompassing a leader's consideration behaviours and their impact on leadership effectiveness in engaging with followers (Houghton et al., 2015; Hoffman, Woehr, et al., 2011). Leaders exhibiting a higher level of consideration typically demonstrate respect and concern for group or organisational members. They are approachable, friendly to followers, open-minded, and receptive to new ideas from others, treating each member fairly and equally (Hoffman, Woehr, et al., 2011; Mahsud et al., 2010).

Relational-oriented leadership behaviours are often explored in studies on participative, empowering, and democratic leadership styles (Endres & Weibler, 2017; Gilbert et al., 2015; Hoffman, Woehr, et al., 2011). A central theme across relational-oriented behaviours involves leadership actions that foster the growth of followers' respect while encouraging a focus on the common well-being of the group (Bolden et al., 2003). Consequently, relational leadership orientation shares elements with transformational leadership behaviours found in transformational theory, particularly individualized consideration for followers. Despite this, transformational leadership theory, in general, entails a set of leadership behaviours aimed at fostering and enhancing organisational change (Jayakody & Gamage, 2015; Hoffman, Bynum, et al., 2011; Bolden et al., 2003). In summary, relational-oriented behaviours center around considerate leadership actions that promote follower respect and a collective focus on group well-being, resembling elements of transformational leadership theory.

Change-oriented leadership behaviours represent the third category of leader behaviours, playing a central role in initiating and executing change within groups and organisations. These behaviours encompass a leader's ability to articulate and communicate a clear vision for achieving organisational change (Sirén et al., 2016; López-Domínguez et al., 2013). Additionally, change-oriented behaviours involve empowering followers to engage in innovative task performance and take risks (Judge et al., 2002).

In the context of predicting effective leadership, change-oriented leadership behaviours align with transformational theory. Leaders, drawing from this theory, employ inspirational motivation when communicating the organisational vision for future success (López-Domínguez et al., 2013; Judge et al., 2002). Moreover, change-oriented behaviours are crucial for fostering intellectual stimulation within transformational leaders and their followers, a key component of

transformational theory contributing to effective leadership. Intellectual stimulation enhances a leader's capacity to seek diverse perspectives, take risks, and challenge assumptions within the group or organisational context (Vigoda-Gadot & Beerli, 2012; Bolden et al., 2003). In summary, change-oriented leadership behaviours are instrumental in initiating and facilitating organisational change, involving the communication of a compelling vision, empowering followers, and fostering intellectual stimulation.

Exploring passive leadership behaviours is the final aspect in determining its significance in predicting leadership effectiveness. Passive leadership involves leaders' inaction, which impacts task performance among followers (Lian et al., 2012). For instance, within the transactional leadership theory, passive leaders typically interact with their group members only when addressing challenges and problems arising in the context of task performance (Chênevert et al., 2015; Bogler et al., 2013). Consequently, in the absence of apparent problems, these leaders do not actively engage with their followers.

Passive leadership behaviours are akin to the laissez-faire leadership style, indicating the absence of specific leadership-related behaviours (Chênevert et al., 2015; Lian et al., 2012). In essence, passive leadership highlights a lack of proactive involvement by leaders, particularly in the absence of evident challenges or issues, which can impact the overall performance of their followers.

The Situational-Contingency School

The second school of thought examined in this chapter is the situational-contingency school. According to Hanson (1979), contingency theory stands out as a significant trend in the study of both public and private management. At the heart of this theory lies the recognition that understanding the "situational" characteristics of organisational makeup is crucial for

comprehending the relationships between environmental factors, management dynamics, and performance variables (Hanson, 1979).

While trait and behavioural approaches are vital for shaping suitable leadership behaviours, they offer limited insights into the components of effective leadership in diverse situations (Van Knippenberg, 2011). Numerous contemporary studies highlight that there is no one-size-fits-all leadership style applicable to all circumstances (Dinh et al., 2014; Landis et al., 2014). Consequently, contingency-situational theories play a pivotal role in evaluating leadership as a psychological process for predicting effective leadership across various organisational situations (Van Knippenberg, 2011).

From the contingency-situational perspective, effective leadership styles hinge on various situational factors, including the tasks at hand, the individuals involved, the organisational context, and other environmental considerations (Northouse, 2016). The examination of several contingency-situational theories aims to ascertain their relevance in predicting leadership effectiveness across different organisational contexts. In summary, the situational-contingency school emphasizes the importance of considering specific situational factors in determining effective leadership styles, acknowledging that no one style suits all circumstances.

Organisational Psychology

In addition to various theoretical approaches employed to scrutinize leadership as a psychological process for predicting effective leadership, the role of organisational psychology is explored as a predictor of leadership effectiveness (Colbert et al., 2014; Kunze et al., 2016). Organisational psychology involves the scientific study of behaviour within organisational and workplace settings (Wagstaff et al., 2012). Transactional leadership, a theory that aligns with organisational psychology, is particularly relevant.

The theory of transactional leadership, initially outlined by Max Weber in 1947 and further expanded by Bernard Bass in 1981, places emphasis on supervision and group performance (Derue et al., 2011; Oreg & Berson, 2015). In transactional leadership, leaders typically focus on ensuring follower compliance through a system of rewards and penalties or punishments, maintaining the status quo (Derue et al., 2011; Oreg & Berson, 2015).

Organisational psychology, aligned with transactional leadership principles, seeks to develop an understanding of organisational, individual, and group behaviours. The knowledge gained from organisational psychology is intended for solving diverse organisational problems (Wang et al., 2014). In summary, organisational psychology serves as a valuable perspective in comprehending leadership effectiveness, with transactional leadership theory providing insights into how leaders can manage and motivate followers within organisational contexts.

Utilizing an organisational psychology approach to assess leadership effectiveness involves a comprehensive examination of organisational development and change, attitudes, employee development, decision-making models, and task performance elements (Pierro et al., 2013; Wang et al., 2014). Organisational psychology encompasses a broad spectrum, including areas such as performance, consumer behaviour, job analysis, decision-making, employee assessment, organisational development, and employees' training and development.

This approach underscores the importance of leaders acquiring and applying knowledge in ethical considerations that impact relationships and task performance across the organisation (Colbert et al., 2014). In other words, organisational psychology provides a lens through which leaders can understand and address various aspects of organisational dynamics, human behaviour, and decision-making processes, contributing to effective leadership within the complex and multifaceted context of an organisation.

Summary

This chapter conducted a thorough survey of literature in the field of leadership studies, incorporating books, scholarly articles, and research findings. To ensure a comprehensive literature review, the chapter provided descriptions, summaries, and evaluations of major research contributions. The exploration began by examining various leadership styles, encompassing topics such as emotional intelligence, essential qualities of leaders, and demographic factors. Subsequently, the review delved into several theoretical approaches to leadership, with examples drawn from trait and cognitive theories.

The concluding sections of the literature review centered on a discussion and comparison of three major schools of leadership thought: The Behavioural School of Leadership, The Situational-Contingency School, and The Organisational Psychology School. Each of these schools was scrutinized for its unique perspectives and contributions to the understanding of leadership effectiveness.

The information presented in this chapter serves as the foundation for the forthcoming discussion on effective leadership in Chapter 4. By synthesizing and analysing diverse sources, the chapter aims to provide a comprehensive understanding of the current state of leadership research and lay the groundwork for further exploration of effective leadership practices.

Chapter 4: Discussion of Effective Leadership

The aim of this dissertation was to investigate the impact of cognitive distortions on leaders' decision-making during a crisis. The study aimed to draw on major leadership theories and psychological processes to enhance our understanding of effective leadership in crisis situations (Dinh et al., 2014; Northouse, 2016). The literature review delved into leadership as a psychological process, aiming to develop an understanding of the diverse attributes and factors that can predict effective leadership.

Several theoretical perspectives were evaluated, including the trait and behavioural schools, which have been instrumental in describing effective leadership. The review also delved into organisational psychology to identify the issues leaders must address to create a positive workplace climate for all employees. Additionally, the dissertation covered other theoretical perspectives such as contingency, situational, group leadership, and servant leadership, emphasising that leaders across various group and organisational contexts must comprehend the diverse qualities and attributes necessary for effective leadership.

Effective leadership plays a crucial role in promoting optimal productivity among followers. Therefore, the dissertation followed the parameters set by research related to the behavioural paradigm and sought to synthesize trait theories and theories based on personal characteristics as tools to explore leadership as a psychological process that can predict effective leadership. In essence, the study aimed to contribute to the understanding of how cognitive distortions impact leaders' decision-making during crises and how effective leadership can be achieved across different contexts.

Effective leadership is pivotal for achieving success in organisations, teams, and groups (Andrews & Boyne, 2010). Researchers such as Avolio et al. (2010), Boehm et al. (2015), Brouer

et al. (2013), Burns (2010), Caligiuri and Tarique (2012), Dempster (2019), Hoffman, Bynum, et al. (2011), Michaelis et al. (2010), Oreg and Berson (2015), Piccolo et al. (2012), Ramchunder and Martins (2014), and Uhl-Bien et al. (2014) have identified various attributes of effective leaders.

Effective leaders demonstrate the ability to manage interpersonal dynamics that impact their followers' efficiency in task performance (Avolio et al., 2010; Boehm et al., 2015). They possess the capacity to bring together diverse individuals, positively influencing them to achieve shared and purposeful tasks (Brouer et al., 2013; Caligiuri & Tarique, 2012). Furthermore, effective leaders empower their followers without resorting to manipulation or coercion, allowing individuals to leverage their potential for collective goal accomplishment (Burns, 2010; Michaelis et al., 2010).

In the pursuit of effective leadership, leaders adeptly develop plans, acquire resources, and allocate them efficiently to fulfill the intended purpose (Michaelis et al., 2010; Oreg & Berson, 2015). This involves designing credible plans based on the existing circumstances, gathering suitable resources, and utilizing them effectively. Effective leaders view their followers as essential assets for plan execution, inspiring action and supporting efficient work (Oreg & Berson, 2015; Piccolo et al., 2012). Additionally, when allocating resources, effective leaders proactively address potential deficiencies to prevent issues that may impede their teams from achieving desired success levels (Hoffman, Bynum, et al., 2011; Ramchunder & Martins, 2014).

In this chapter, the discussion commences with an analysis of the identified criteria for effective leaders. In other words, the chapter explores the key attributes and behaviours that researchers have recognized as central to effective leadership.

Criteria for Leadership Effectiveness

The criteria used to evaluate leadership effectiveness encompass planning, organisation, directing, and monitoring. In the context of planning, leaders are tasked with identifying organisational needs and determining the specific actions required to address them (Aladwan & Forrester, 2016; Borgmann et al., 2016). Effective planning involves designing a course of action to guide task performance based on a thorough understanding of the capabilities needed to achieve set goals with minimal time, financial cost, labour, and resources (Decuyper et al., 2010).

Efficient planning goes beyond just meeting objectives; it also demands that leaders achieve these goals while upholding ethical and legal standards (Decuyper et al., 2010; Hassan et al., 2013). In other words, effective leadership planning involves a strategic and ethical approach to identifying organisational needs, formulating actions, and ensuring the responsible allocation of resources for goal attainment.

Additionally, effective leadership is characterized by efficient organisational capabilities, crucial for fostering suitable behavioural patterns essential for the effective utilization of acquired resources (Borgmann et al., 2016; Hoffman, Woehr, et al., 2011). An effective leader is tasked with developing strategies for the optimal utilization of resources such as human labour, cash, and equipment. Leadership effectiveness, in this context, plays a pivotal role in selecting the right resources, including necessary personnel, and establishing processes for their efficient and effective use (Hoffman, Woehr, et al., 2011; Lam et al., 2015). In other words, effective leadership extends beyond planning and includes the ability to organize and optimize available resources to achieve organisational goals.

Directing serves as the third criterion for determining effective leadership. Recognized as the most visible and identifiable leadership role, directing is crucial for delineating the

requirements necessary to achieve an organisation's objectives (Piccolo et al., 2012; Sadeghi & Pihie, 2012). Effective directing capabilities allow leaders to organize resources efficiently for the execution of organisational tasks (Le Fevre & Robinson, 2015; Shin et al., 2016; Shoss et al., 2015).

Leadership effectiveness is pivotal in comprehending the existing organisational circumstances with minimal errors. This understanding is accompanied by a clear definition of the actions required to advance organisational goals and objectives (Piccolo et al., 2012). Moreover, to achieve effective directing of organisational processes and tasks, leaders must motivate their teams to enhance performance (Shin et al., 2016; Shoss et al., 2015). In other words, effective leadership involves not only setting the direction for organisational aims but also motivating and guiding teams to efficiently execute tasks and processes in alignment with those aims.

Efficient monitoring of organisational and team performance is another crucial criterion for determining leadership effectiveness (Yukl & Mahsud, 2010). Monitoring enables leaders to design relevant measures to evaluate organisational performance, including the identification and remediation of errors that could impede the organisation's success (Le Fevre & Robinson, 2015; Mahsud et al., 2010; Yukl & Mahsud, 2010). Effective leaders proactively seek out deficiencies in their teams and test organisational processes to address issues that may contribute to errors and problems (Gilbert et al., 2015; Grant et al., 2011; Yukl & Mahsud, 2010).

With proper monitoring strategies, effective leaders can coordinate the activities of their teams to ensure organisational efficiency (Yukl & Mahsud, 2010). In other words, leadership effectiveness is demonstrated by the ability to actively and systematically monitor performance, identify areas for improvement, and implement corrective actions to enhance overall organisational and team effectiveness.

Qualities of Effective Leaders

In addition to the specified criteria for determining effective leadership, leaders must possess certain qualities that contribute to higher levels of organisational efficiency. The literature highlights several essential leadership qualities that characterize effective leaders. These qualities include honesty and integrity, delegation, accountability, creativity, communication, listening, relational skills, and motivational traits, all of which were thoroughly discussed in the literature review section of this study. In other words, effective leaders are characterized by a combination of these qualities, demonstrating their commitment to ethical conduct, strategic delegation, accountability, innovative thinking, effective communication, attentive listening, strong interpersonal skills, and the ability to motivate others.

Various qualities are employed to predict leadership effectiveness across different situations. Attributes such as integrity and honesty contribute to predicting leadership effectiveness by establishing trustworthiness (Zhang et al., 2015). Furthermore, the ability of leaders to lead by example is essential in ensuring effectiveness in their leadership roles. Through ethical conduct, leaders can serve as appropriate role models for their followers, thereby enhancing leadership effectiveness (Houghton et al., 2015). In other words, qualities such as integrity and the ability to lead by example are indicative of effective leadership, fostering trust and providing a positive influence on followers.

Effective leaders are willing to delegate some of their leadership responsibilities to their followers. Delegating leadership roles to certain team members signifies trust, inspiring the team to achieve the established objectives (Boehm et al., 2015). When delegating, leaders must identify and leverage the strengths of the team, influencing higher levels of task performance (Boehm et al., 2015). Effective leaders must also demonstrate accountability, wherein they accept

responsibility for their conduct and that of the team. Accountability empowers leaders and their followers to take corrective measures to address situations rather than shifting blame to others (Boehm et al., 2015). In other words, effective leadership involves not only delegation but also accountability, fostering a collaborative and responsible team environment.

Creativity is also employed as a predictor of leadership effectiveness. Effective leaders must be able to recognize different approaches to addressing challenges and making decisions (Houghton et al., 2015). Similarly, possessing effective interpersonal skills, such as communication, sincerity, listening, and efficient dispute resolution, is necessary for influencing effective leadership. With such qualities, leaders can maintain focus in their teams of followers, thereby fostering success (Houghton et al., 2015). Additionally, interpersonal skills are essential for enhancing leadership effectiveness characterized by effective problem-solving with the aim of maintaining team cohesion and coordination (Houghton et al., 2015). In the discussion of effective leadership, the political science perspective indicates that leadership effectiveness is characterized by the leadership strategies that leaders use to collect and allocate resources toward obtaining important goals and objectives (Zhang et al., 2015). This approach can be very creative in design and implementation. In other words, creativity, along with effective interpersonal skills, contributes to effective leadership by enabling leaders to address challenges innovatively and maintain cohesive and coordinated teams.

Flexibility is another essential component of leadership effectiveness for political leaders. Flexible leaders employ the give-and-take strategy to address diverse problems. Additionally, a positive mental attitude is an important determinant of leadership effectiveness. A positive mental attitude enables leaders and their followers to approach and address challenging issues effectively, with a focus on achieving the desired levels of success (Yukl, 2012). Effective leadership practices

in the political context must also be characterized by a commitment to realizing common goals and aims (Yukl, 2012). In other words, flexibility and a positive mental attitude are integral aspects of effective political leadership, enabling leaders to adapt to challenges and maintain a constructive approach in pursuit of shared objectives.

Moreover, with ethical conduct, leaders are able to uphold ethical standards when performing their responsibilities, thereby ensuring that the team follows a work ethic to maintain moral values, such as diligence (Oreg & Berson, 2015). Ethical conduct also enhances fairness and justice for the followers. The capacity to develop followers' potential talent is also a crucial leadership effectiveness skill that fosters productivity and success (Oreg & Berson, 2015). For instance, leaders must identify appropriate opportunities for promoting the followers' optimal growth necessary for assuming different leadership roles (Oreg & Berson, 2015). While these skills are important in ascertaining effective leadership, this dissertation also focuses on frameworks that help explain the types of personalities best suited for leadership effectiveness. In other words, ethical conduct, fairness, and talent development are key aspects of effective leadership, contributing to a positive work environment and fostering the growth and success of individuals within the team.

Personality Framework

The study's results highlight the significance of the big five personality framework in identifying crucial psychological attributes for predicting leadership effectiveness (Uhl-Bien et al., 2014). For instance, the findings emphasize individual traits as important interpersonal attributes used to determine leaders' approaches in fostering social interactions. Consequently, the big five personality framework plays a vital role in studying the relationship between leadership behaviour and leader traits (Uhl-Bien et al., 2014). The five components of the framework involve

conscientiousness, openness, agreeableness, extraversion, and neuroticism (Uhl-Bien et al., 2014). Leaders' ability to manage these identified five components is critical for predicting leadership effectiveness. In other words, the big five personality framework provides valuable insights into the psychological attributes that contribute to effective leadership.

The leaders' ability to effectively control these different personality traits played a crucial role in determining leadership effectiveness (Grundig & Ward, 2015). Motivational characteristics were identified in the study as being pivotal for predicting leadership effectiveness (Derue et al., 2011; Hartnell et al., 2011). In this study, such motivational characteristics were identified through personality assessment and standard measurements of individual traits (Derue et al., 2011). From this personality assessment, achievement emerged as a key attribute for leadership effectiveness, indicating the leaders' desire to attain optimal success in meeting their goals (Hoffman, Bynum et al., 2011). Similarly, dominance was identified as a critical component indicating the leader's potential to exercise power in influencing followers effectively (Derue et al., 2011). Furthermore, cognitive skills were identified in the study as important predictors of leadership effectiveness. Such cognitive predictors include critical thinking, effective planning skills, openness to new information and ideas, creation of new ideas, and the potential to revise such ideas (Kunze et al., 2016; Lam et al., 2015). Additionally, the study findings provided important information indicating how critical writing skills and verbal reasoning contribute to the prediction of leadership effectiveness. The clusters of skills identified as critical to predicting leadership effectiveness include thoughtful innovators, in which highly motivated thinkers usually emerge as effective leaders (Ewen et al., 2013). In such thoughtful innovator skills, leaders who scored highly in achievement, intuition, thinking, openness, dominance, planning, verbal reasoning, and creation of ideas emerged as effective (Houghton et al., 2015; Jing & Avery, 2011). In other words, the

study underscores the importance of leaders' abilities to manage motivational characteristics and cognitive skills, including critical thinking and effective planning, in predicting leadership effectiveness.

Leaders who are motivated communicators are deemed effective in dominating and influencing their followers (Ewen et al., 2013). Although such leaders scored highly in extroversion, achievement, and responsibility, they scored low in perception and intuition. The results indicate that social adaptor skills are other important aspects used to predict leadership effectiveness (Lam & O'Higgins, 2012; López-Domínguez et al., 2012). For instance, leaders who score highly in relational skills, extroversion, openness, and perception are likely to positively influence their followers, often occupying senior leadership positions in organisations (Mittal & Dorfman, 2012). Other leadership skills identified as predictors of effective leaders include concrete achiever skills, disengaged introverts, and limited defensives. The leaders' ability to control these skills is important in indicating their effectiveness (Ewen et al., 2013). To address the psychological component of leadership effectiveness, it is essential to revisit the six major leadership theories.

Six Leadership Theories

The field of psychology encompasses six major leadership theories: trait, behavioural, contingency, transformational, transactional, and integrated. In the literature review, these theories were identified as essential frameworks for understanding effective leadership. The analysis of leadership as a psychological process aimed to explore these theories to determine the psychological aspects defining effective leaders. Investigating the impact of psychological attributes on leadership practice is crucial for predicting leadership effectiveness. A comprehensive definition of leadership includes various elements such as skills, qualities, traits, and characteristics

influencing leadership behaviour (Derue et al., 2011). Additionally, the examination of inherent and learned attributes in leadership practice was conducted to determine whether leaders are born or made. Leaders are defined as individuals with specific innate attributes predisposing them to fulfill certain leadership duties (Derue et al., 2011). However, it is acknowledged that these leaders must acquire experiences and lessons to enhance their ability to perform leadership responsibilities more effectively. The following section provides a detailed discussion of these key theories, starting with trait theory.

Trait Theory

The initial theory, known as trait theory, originated from the Great Man theory in the nineteenth century (Oreg & Berson, 2015). It was initially applied to the study of leadership traits among social and military leaders, identifying common traits and attributes deemed essential for effective leadership. Early studies under the trait theory considered personal, physical, and social attributes as influential factors in leadership. Effective leaders were found to share traits like honesty, integrity, a desire to lead, intelligence, confidence, and knowledge (Oreg & Berson, 2015). Over time, the exploration of effective leadership traits has expanded to include additional attributes such as extroversion, insight, tolerance, and dominance. These diverse leadership traits and attributes play a central role in determining leadership success and, consequently, in predicting effective leadership.

Behavioral Theory of Leadership

The second foundational theory employed to predict leadership effectiveness is the behavioural theory of leadership. Diverging from the trait theory, behavioural theory shifts its focus from leaders' inherent traits to their actions (Bolden et al., 2003; Cavazotte et al., 2012; Houghton et al., 2015). This theory underscores the significance of specific leadership behaviours

in determining and predicting effectiveness. According to behavioural theory, leaders can be categorized as either task-oriented or people-oriented (Datta, 2015; Houghton et al., 2015). Task-oriented leaders concentrate on enhancing followers' task performance, while people-oriented leaders prioritize building positive relationships and trust with their followers (Datta, 2015; Houghton et al., 2015).

Leadership behaviours give rise to three discernible leadership styles: autocratic, democratic, and laissez-faire. Autocratic leaders make decisions without involving or consulting their followers (Boehm et al., 2015; Hoffman, Woehr et al., 2011). In contrast, democratic leaders seek input from their followers in the decision-making process, while laissez-faire leaders grant followers the autonomy to make decisions without interference (Chênevert et al., 2015; Lian et al., 2012).

Contingency Leadership Theory

The third significant theory used to elucidate leadership is the contingency leadership theory. This theory emphasizes the importance of leaders recognizing environmental cues and adapting their behaviours and actions to address the needs of followers and the specific situation (Fiedler, 2015). Contingency theory posits that the impact of a single variable, such as behaviour, trait, or situation, depends on other variables. Sub-theories within contingency theory include Robert House's Path-Goal Contingency theory, Fred Fiedler's Contingency theory, and Hersey and Blanchard's Situational theory (Fiedler, 2015).

Robert House's theory highlights the importance of the relationship between followers, shared goals, and the leader. In contrast, Fiedler's theory suggests that leadership effectiveness is contingent on the favourability of the situation. Finally, the Hersey-Blanchard situational perspective underscores the necessity of tailoring leadership to the maturity of followers (Oreg &

Berson, 2015). It emphasizes that a single leadership style cannot be universally applied across all situations; instead, it should align with the specific needs of the followers.

Transformational Theory

The fourth core leadership theory examined for predicting leadership effectiveness is the transformational theory. This theory posits that transformational leaders concentrate on their followers, providing them with intellectual stimulation, an inspiring vision, and motivation to achieve a shared goal (Vito et al., 2014; Sadeghi & Pihie, 2012). Transformational leadership theory underscores positive relationships between leaders and followers, with leaders focusing on enabling followers to reach their potential (Bass Riggs, 2006). In addition to fostering follower growth, transformative leaders allow their followers to develop a sense of collective identity, serving as role models and challenging followers to take ownership of their task performance (Sadeghi & Pihie, 2012).

Transactional Theory

The fifth core theory explaining leadership practice is the transactional leadership theory. This type of leadership is suitable in emergency and crisis situations, where tasks need to be executed according to specific guidelines. Effective task performance is rewarded, while poor performance is punished (Oreg & Berson, 2015).

Integrated Psychological Theory

The final core theory used to explore leadership effectiveness is the integrated psychological theory, also known as the integrated leadership theory (Boehm et al., 2015). This theory addresses the limitations of previous theories and introduces a new element that requires leaders to nurture their leadership attitude, presence, and behavioural flexibility based on psychological mastery (Boehm et al., 2015). Leaders are expected to exercise effective leadership

practice on three parallel levels: private, public, and personal. Private and public leadership focus on influencing people at both the collective and individual levels, while personal leadership emphasizes developing significant leadership presence, skill, and knowledge critical for enhancing trust-based relationships (Boehm et al., 2015).

While behavioural theories are crucial in explaining the actions that indicate leadership effectiveness, trait theories help in identifying the specific personality characteristics that can define effective leaders (Boies et al., 2015). Behavioural theory also indicates that leadership can be learned while trait theory explains leadership as being based on a leader's innate attributes, thereby lacking the flexibility associated with determining the role of environmental factors (Boies et al., 2015). The contingency theory builds on both the behavioural and trait theories, indicating the need for a situational leadership approach. In contrast, the transformative, transactional, and integrated leadership theories emphasize the importance of leader-follower relationships (Boies et al., 2015). The six theories explored are examined closely for their similarities and differences, which can be used to describe leadership effectiveness (Boies et al., 2015).

Summary

This chapter integrated the literature review and the thesis for this dissertation by examining the major leadership theories as psychological processes to determine whether such analyses can contribute to a prediction of effective leadership. The chapter began with a review of the criteria and qualities of being an effective leader. The discussion continued with an examination of the personality framework and expanded on the literature review discussion from chapter 3 of trait, behavioral, contingency, transformational, and integrated psychology theories of leadership. The final chapter will integrate the work from the literature review and this discussion chapter with conclusions and recommendations from this dissertation.

Chapter 5: Conclusion

In this dissertation, I examined when in a crisis, can a leader make effective decisions without cognitive distortions. I synthesized both trait theories and theories based on personal characteristics to explore leadership as a psychological process and showed that they can be used to predict effective leadership. An exploration of leadership as a psychological process demonstrated a significant role in determining how organisational psychology and different theoretical perspectives can be used to predict effective leadership. The study of major leadership theories and psychological concepts that can be used to predict leadership effectiveness has led researchers to realize several important findings. The core results obtained indicate that leadership effectiveness is dependent on an individual's capacity to demonstrate specific behaviours, traits, and attributes (Bolden et al., 2003; Brouer et al., 2013; Cavazotte et al., 2012; Derue et al., 2011). Such behaviours serve an important role in determining the leadership styles used to improve performance, thereby emerging as predictors of leadership effectiveness (Datta, 2015; Mühlberger & Traut-Mattausch, 2015; Walumbwa et al., 2012). Some of these valuable and important traits that effective leaders must possess include: capacity to manage the interpersonal dynamics (Avolio et al., 2010; Boehm et al., 2015), ability to bring together diverse individuals tasks (Brouer et al., 2013; Caligiuri & Tarique, 2012), empower followers to perform tasks without manipulation or coercion (Burns, 2010; Michaelis et al., 2010), and consider their followers as an essential asset required for the execution of the developed plans (Oreg & Berson, 2015; Piccolo et al., 2012) among others. Furthermore, there are several skills that are linked to effective leader development. Such skills include self-awareness skills, such as emotional awareness abilities; self-regulation capabilities, such as self-control; and the capacity for self-motivation, including optimism (Brouer et al., 2013; Colbert et al., 2012).

Other than skills and attributes, previous research indicated that demographics of leaders also influence their effectiveness as leaders. The trait paradigm posited that factors such as gender, personality, education, experience, and intelligence may influence leadership effectiveness (Hartnell et al., 2011). These demographics have been investigated in studies to determine whether they have any measurable effect on leadership effectiveness (Grant et al., 2011; Paustian-Underdahl et al., 2014). Meanwhile, emotional intelligence emerged as being twice as essential as technical and cognitive skills in predicting leadership performance (Dinh et al., 2014; Goleman et al., 2013). Emotional intelligence components explored in the study include self-awareness, motivation, and self-regulation (Dabke, 2016; Goleman & McKee, 2013). These three components form the self-management capabilities necessary to ensure effective leadership (Jayakody & Gamage, 2015; Lam & O'Higgins, 2012; Ramchunder & Martins, 2014).

Besides the several qualities of leadership explored above, leadership effectiveness can be predicted using emotional intelligence (Houghton et al., 2015). Emotional intelligence is an important aspect of leadership practice as it allows leaders to manage and control their own emotions and their followers' emotions (Houghton et al., 2015). In line with emotional intelligence, social intelligence is considered an important aspect that indicates the role of interpersonal behaviors in fostering effective leadership. With emotional intelligence, effective leaders can perceive, assess, and demonstrate appropriate emotions depending on situations (Houghton et al., 2015).

Leaders require emotional intelligence to address the emerging demands in their leadership practices. For instance, leaders need emotional intelligence to manage and foster change (Houghton et al., 2015). To demonstrate emotional intelligence, leaders need to develop competencies in five important areas. The first area entails self-awareness, which allows them to understand the influence of their emotions on their followers' actions (Houghton et al., 2015).

With self-awareness, leaders can avoid emotional instabilities related to anger, thereby ensuring positive relationships with followers (Houghton et al., 2015).

Effective leaders must also demonstrate the second competency of self-regulation. Self-regulation allows leaders to maintain objectivity by avoiding rushed decision-making processes (Yukl, 2012). Thirdly, leaders must demonstrate knowledge in the competency area relating to self-motivation (Yukl, 2012). Self-motivation allows leaders to focus toward realizing their goals based on quality task performance (Yukl, 2012).

The fourth competency area that leaders must demonstrate involves empathy. Empathy allows leaders to ensure effective practice by listening and helping their followers to perform their roles effectively (Yukl, 2012). Lastly, leaders must demonstrate appropriate social skills for effective leadership practice (Yukl, 2012). For instance, social skills such as communication and conflict resolution are essential aspects of predicting leadership effectiveness. Therefore, the exploration of leadership as a psychological process has led to the analysis of several core leadership theories, qualities, and attributes that can be used to predict effective leadership.

In the crucible of a crisis like the Covid-19 pandemic, leaders are subjected to immense pressure, making decisions that have far-reaching consequences for their organisations and stakeholders. The psychological impact of such high-stakes decision-making cannot be understated, and cognitive distortions emerge as influential factors affecting leaders in these situations. The administration of a carefully crafted 10 question survey aimed to illuminate the prevalence and impact of cognitive distortions among leaders navigating the challenges posed by the pandemic.

The survey results provided a comprehensive view of how cognitive distortions indeed affect leaders when making critical decisions during a crisis. One of the key cognitive distortions

identified was 'All-or-Nothing Thinking'. Leaders, under the strain of the pandemic, exhibited a tendency to view situations in binary terms, a phenomenon evident in their decisions that often leaned towards extremes. This cognitive distortion reflects a lack of nuanced thinking, potentially hindering the exploration of balanced and adaptive solutions.

'Catastrophising' emerged as another significant cognitive distortion among leaders surveyed. The fear and uncertainty associated with the pandemic led many leaders to envision worst-case scenarios, often exaggerating the potential negative outcomes of their decisions. This tendency to catastrophize can contribute to heightened stress levels and impact the leader's ability to objectively assess the situation.

Leaders may grapple with cognitive distortions that significantly impact their decision-making processes. These distortions, rooted in irrational thought patterns, can compromise the quality of leadership decisions. For instance, demonstrated from the data, catastrophising may lead leaders to magnify potential negative outcomes, fostering unnecessary anxiety and overly conservative choices. Confirmation bias can result in a narrowed focus on information that aligns with pre-existing beliefs, neglecting crucial perspectives that challenge those viewpoints. Overcoming these cognitive distortions requires self-awareness, a commitment to seeking diverse input, and fostering an environment that encourages open dialogue and flexibility in decision-making. Leaders who navigate these distortions more effectively are better positioned to make sound, well-informed decisions that align with organisational goals.

The survey shed light on the prevalence of 'Emotional Reasoning' among leaders wrestling with the complexities of crisis management. The emotional toll of the pandemic influenced decision-making processes, with leaders acknowledging that their choices were influenced by feelings rather than a purely rational evaluation of circumstances. This insight underscores the

emotional challenges leaders face and emphasizes the need for strategies to integrate emotions constructively into decision-making.

‘Mind Reading’ also surfaced as a cognitive distortion affecting leaders during the pandemic. Some leaders believed they could accurately predict the thoughts and reactions of others, potentially leading to misinterpretations and misguided assumptions about stakeholders' perspectives. This distortion highlights the importance of effective communication and feedback mechanisms to mitigate misunderstandings.

In essence, the 10-question survey effectively demonstrated that cognitive distortions are prevalent and impactful in the decision-making processes of leaders during a crisis such as the Covid-19 pandemic. The survey's findings emphasise the need for leadership development programs that address cognitive biases, promoting a more nuanced, balanced, and evidence-based approach to decision-making. As organisations continue to navigate the complexities of crises, understanding and mitigating cognitive distortions become imperative for fostering resilient and effective leadership.

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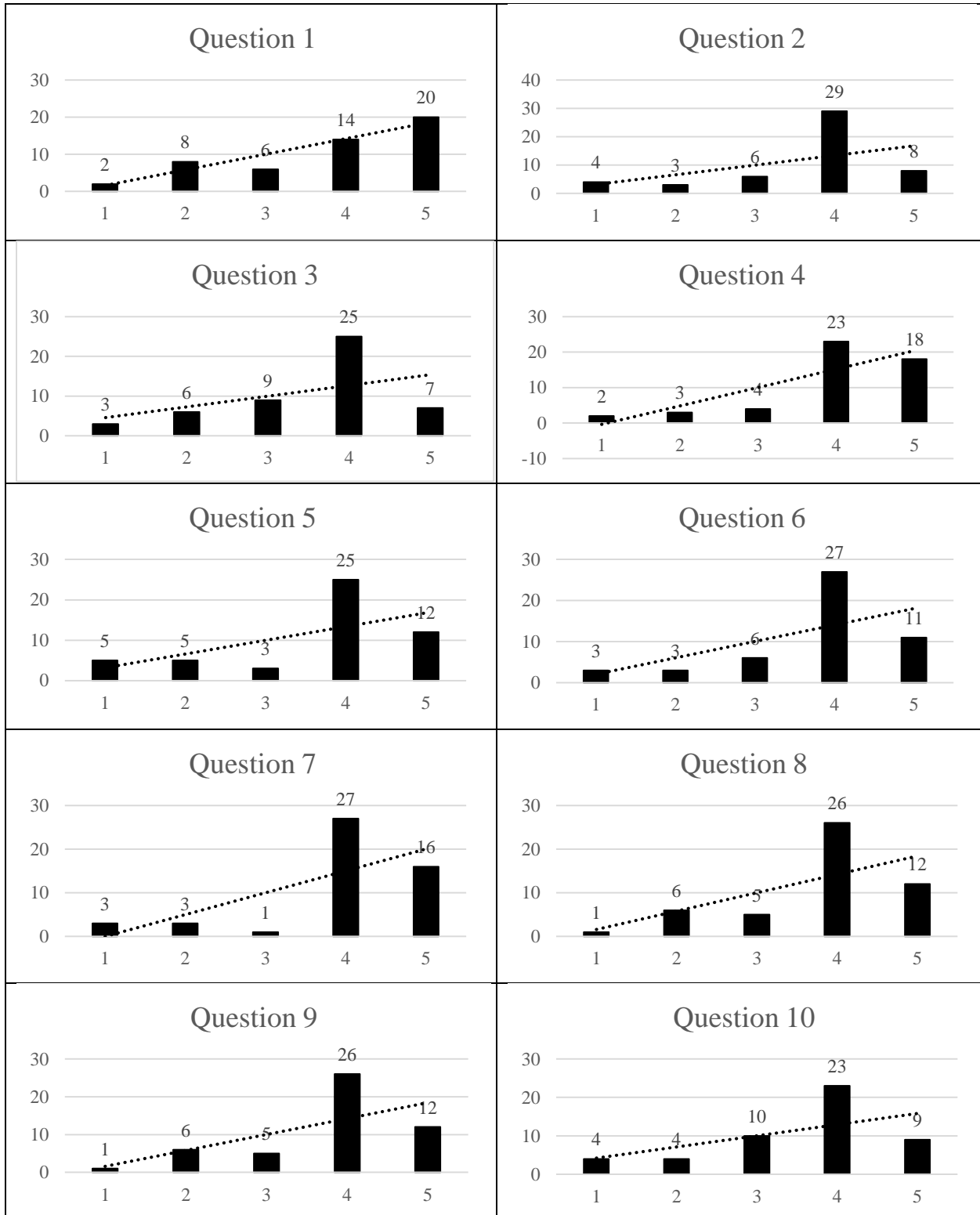
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Annexure A - Bar Charts with trendlines for Survey Results



Based on the raw data referred to in Table 3, the bar charts have been developed. It is clearly evident from the trend lines on the bar charts, together with the bar charts themselves, there is overwhelming evidence from the 50 participants that demonstrated various cognitive distortions.