



Name of Publisher: GO GREEN RESEARCH AND EDUCATION
Review Type: Double Blind Peer Review
Area of Publication: Business, Management and Accounting (miscellaneous)



Journal of Business and Management Research

Online ISSN

2958-5074

Print ISSN

2958-5066

Vol. 4, issue.1,2025

Cognitive Process and Individual Traits; the Factors Affecting Decision Making Style of Managers

Hasnain Raza Qaim Khani

Dow University of Health Sciences – Karachi. Email: hasnainkk28@gmail.com

Mirza Kashif Baig

Assistant Professor, Institute of Business and Health Management, Dow University of Health Sciences – Karachi. Email: kashif.baig@duhs.edu.pk

ORCID ID: <https://orcid.org/0000-0002-1157-6385>



Abstract

This research examines the relationship between key individual traits—proactivity, self-awareness, relative positioning, adaptability, and prudence—and decision-making styles, offering insights into cognitive processes that influence managerial choices and actions. The primary objective is to assess how these independent variables shape decision-making styles, exploring whether proactive individuals adopt proactive decision-making approaches, whether self-awareness fosters introspection, and whether adaptability leads to flexible decision-making. A quantitative research methodology was employed, utilizing a purposive sampling technique and a cross-sectional time order to target individuals actively engaged in decision-making within their organizations. Structural Equation Modeling (PLS-SEM) was used for data analysis. The findings indicate that proactivity, self-awareness, and relative positioning significantly influence the decision-making styles of Pakistani managers. However, contrary to previous studies, adaptability and prudence did not show a significant impact, highlighting a critical area for further research. These results emphasize the importance of self-awareness, proactivity, and relative positioning in shaping managerial decision-making, offering valuable theoretical and practical implications. The findings suggest that while adaptability and prudence may not be influential in this context, their role in dynamic or high-stakes environments warrants deeper exploration to better understand their potential impact on decision-making processes.

Keyword: Decision making, managers, Cognitive Process, Proactivity, Self-awareness, Relative Positioning, Adaptability, Prudence.

Introduction

Research Background

The decision-making process is a complex and multifaceted phenomenon that plays a central role in various aspects of human life, including personal, professional, and social domains. The factors responsible for making decision may involve a ranged of stimuli from psychology to social factors (Labutina et al. 2024). Understanding the factors that influence decision-making styles is significant, as it provides insights into the cognitive processes and individual traits that guide individuals' choices and actions (Yusif and Hafeez-Baig 2024). It is therefore, imperative to investigate the relationship between certain independent variables and the dependent variables that influence decision-making style of managers in Pakistan. The study provides an

important insight into the corporate decision making in that there is not enough research in Pakistani context that give such an understanding of th managerial phenomenon in the country. Through a literature some important independent variables have been identified in this study that include proactivity, self-awareness, relative positioning, adaptability, and prudence. Each of these independent variables represents distinct psychological and cognitive attributes that are expected to affect how individuals make decisions.

Research Objectives and Questions

This research aims at investigating the impact of proactivity on individuals' decision-making styles. This includes assessing whether individuals with higher levels of proactivity tend to exhibit decision-making styles that align with their proactive nature. It is also intended to study the role of self-awareness in shaping decision-making styles. This involves analysing whether individuals with greater self-awareness tend to adopt decision-making styles characterized by introspection and self-reflection. The pertinent questions to answer are involved whether relative positioning influences decision-making styles. This includes examining whether individuals who consider their position, adaptability, and prudence relative to others when making decisions demonstrate distinct decision-making styles.

Justification of the Study

Decision-making is a fundamental aspect of human behaviour that influences personal and professional life. Understanding the factors that shape decision-making styles can provide insights into how individuals make choices and can lead to improvements in decision-making processes in organizations of developing countries, like Pakistan. Knowledge of the factors influencing decision-making styles can be beneficial for individuals seeking personal growth and self-improvement. Recognizing one's own tendencies and the impact of specific traits can empower individuals to make more informed and effective decisions. By identifying the factors that contribute to different decision-making styles, organizations and individuals can optimize their decision-making processes. This can lead to more effective and efficient choices that align with objectives and values. While individual traits like proactivity and self-awareness have been studied in relation to decision-making, the holistic examination of these factors, along with relative positioning, adaptability, and prudence, remains limited. This study addresses a gap in the existing literature by examining these variables together. The findings of this research are expected to have relevance across various domains,

including personal life, leadership, management, and beyond. The potential for cross-domain applicability enhances the study's significance.

Literature Review

Decision Making Style

Decision-making styles are characterized as stable, trait-like patterns of approaching decision-making situations (Driver 1979; Harren 1979) . These styles are akin to personality traits and are not perfectly predictive but indicate the likelihood of certain behaviours across diverse situations and contexts. Decision-making styles exhibit trait-like stability, similar to personality traits, implying consistency in behavioural tendencies across situations (Driver 1979; Harren 1979) . Individuals with specific decision-making styles, such as Spontaneity, are inclined to exhibit spontaneous behaviour more frequently than deliberate and thoughtful decision-making approaches (Leykin and Derubeis 2010). Decision-making styles do not possess perfect predictive power; rather, they offer insights into the probabilities of certain behaviors in decision-making situations (Leykin and Derubeis 2010) . For instance, individuals scoring high on particular decision-making styles are expected to demonstrate corresponding behaviours more frequently across various domains and situations.

There were common group decision-making styles related to group and social factors (Yousef 1998) and four decision-making styles:

- Autocratic style: the leader makes decisions based on the information available to him, without considering others in the group.
- Participatory style: The group gathers information, evaluates alternatives and makes a majority decision.
- Participative style: Decisions are made by the leader after consulting the group members. Decisions may or may not reflect group influence.
- Delegator style: The leader delegates other team members to make decisions themselves.

The conflict theory of decision making (Janis and Mann 1977) aims to characterize the decision maker according to: (a) belief in the decision, (b) coping strategies used to deal with the internal conflict of the decision and the most adaptive solution. An individual's most visible decision-making style is the one that reflects the default coping strategy used during important decisions.

Proactivity

Proactivity in decision-making involves anticipating future circumstances and taking action accordingly (Grant and Ashford 2008). It reflects a forward-thinking mindset, where individuals consider potential outcomes before they occur, emphasizing foresight and risk mitigation (Frese and Fay 2001). This proactive stance includes self-initiated actions aimed at creating positive change and improvement in oneself or the environment (Parker, Williams, and Turner 2006). Proactive behavior supports workplace success, promoting job performance, career advancement, and organizational growth (Grant and Ashford 2008). Effective decision-making depends on the quality of available options, with proactivity positively influencing outcomes such as life satisfaction and career progression (Thompson 2005).

Self-Awareness

self-awareness has been defined as possessing attributes that encompass characteristics of both temporary states and enduring traits. To illustrate, it has been delineated as the perception of "becoming the subject of one's own focus, (Morin 2011) a description aligning with temporary or state-like experiences. Conversely, it has also been expounded as an individual's ability to recognize, process, and retain self-relevant information, which predominantly reflects a persistent trait. This dual interpretation of self-awareness is elucidated by (Morin 2011)

Moreover, borderline personality disorder (BPD) is a condition characterized by an unstable self-concept and pronounced deficits in comprehending one's own identity and self-knowledge. The classification of BPD as a personality disorder, as opposed to a mood disorder, underscores the notion that this deficiency in self-awareness is long-lasting and akin to a trait rather than fleeting and akin to a temporary state. This perspective is underscored in the research conducted by Rudge, Feigenbaum, and Fonagy (2020) when considering self-awareness, one must take into account the professional development of the individual's experiences, the system in which the person exists (i.e. academic environment, work environment, work responsibilities and culture, beliefs and value systems Ethical practice, personal counselling, and regardless of Training programs of self- counsellor, developed growth experiences to increase self-awareness are often recommended. Counsellor self-esteem is important in determining this, how personal values are managed with clients and their issues. Ethical dilemma, counsellors decide how to communicate. and what to recommend to the client (Evans, Heller Levitt, and Henning 2012)

It is acceptable to include the concept of self-awareness in mindfulness (Gu et al. 2015) our concept of self-awareness refers to the awareness of one's strength and weakness. We thank an anonymous reviewer for raising this issue. (Ding, Fung, and Zhang 2023).

Relative Positioning

The relative positioning has received potential significance in influencing decision-making (Alhazmi 2016) . It involves the situation when you Know the challenges and environmental status and the action is based on your resources, which allow you to take advantage of the support and limits of the environment (Ding et al. 2023) . The relational positioning mindset considers where and how people are in their current position, how they value the resources/constraints around them, the stage of the life cycle they are in, and their ability to cope with challenges and make changes (Ding et al. 2023) . There are two decision conditions. First, one must be aware of the environment to see if support is available (self-awareness factor) and how to become resourceful to take advantage of support (relative positioning factor) (Fung 2014).

Adaptability

Adaptability reflects an individual's ability to respond to changing circumstances and professional challenges (Savickas and Porfeli 2012) . Career adaptability, a psychosocial construct, encompasses readiness and resources to manage tasks, transitions, and traumas in work environments. Career construction theory identifies four adaptive resources—care, control, curiosity, and confidence—essential for navigating career development (Hartung, Porfeli, and Vondracek 2008). Care involves planning for the future, control emphasizes responsibility for shaping one's career, curiosity promotes exploring possibilities, and confidence ensures belief in achieving goals. Adaptability also relates to connectivity in systems, where resilience stems from maintaining functionality despite disruptions (Ulanowicz 2002) . It supports socio-ecological resilience, essential for sustaining environmental stability amid societal challenges (Steffen, Crutzen, and McNeill 2007). Additionally, adaptability is crucial for managing ambiguity, uncertainty, and stress in dynamic, boundary-less work settings (Pearlman and Barney 2000) . Career adaptability has replaced career maturity, integrating developmental, identity, and contextual perspectives within career construction theory (Savickas 1997). The construct underscores the importance of preparing for future tasks, exploring career opportunities, and maintaining resilience in the face of disruptions. As a critical personal quality, adaptability enables

individuals to thrive amid evolving professional and societal demands, contributing to career success and broader system sustainability

Prudence

Prudence, rooted in virtue ethics, emphasizes foresight as a critical attribute in decision-making and risk management (Kimbalk et al. 1990). Historically derived from ancient Greece, Rome, and medieval Christian traditions, prudence integrates self-awareness, self-control, and a thoughtful focus on goals and consequences (J. Patrick 1998, 1999). It remains central to moral and political ethics due to the complexity of aligning ideals with evolving realities. Prudence necessitates deliberation, where leaders rely on knowledgeable advisors and inclusive debates to navigate moral challenges and adapt to unexpected events (Murray 1994). In political contexts, prudence involves balancing moral, legal, and constitutional responsibilities while accommodating conflicts and uncertainties (Sherman 1989). Leaders must foster decision-making processes that are thorough, adaptable, and reflective of diverse viewpoints. Though no leader or process is flawless, prudence enables moral responsibility and thoughtful action in imperfect circumstances. While it cannot ensure success, the absence of prudence often guarantees failure, underscoring its role as a vital leadership virtue (J. Patrick 1999).

Hypotheses Development

Relationship between Proactivity and Decision-Making Styles

There are positive relationship between proactivity and decision-making styles, suggesting that individuals who demonstrate higher levels of proactivity are more likely to exhibit proactive decision-making styles. This hypothesis finds support in the literature, primarily from the work of (Grant and Ashford 2008) and the description of proactivity as being "future-focused," "anticipatory," and "forward-looking."

The literature review emphasizes that proactive individuals anticipate future circumstances and factor these into their current decision-making processes. This forward-thinking and anticipatory nature aligns with decision-making styles characterized by a proactive approach. Proactive individuals are more inclined to gather information, evaluate alternatives, and take action before events transpire, reflecting a proactive decision-making style.

In practical terms, this implies that individuals with a strong proclivity for proactivity may make decisions that are well-informed, forward-looking, and aimed at bringing about discernible changes in themselves and their surrounding environments.

They are more likely to exhibit decision-making styles characterized by careful consideration of future implications and a tendency to take the initiative in solving problems or making choices.

The connection between proactivity and proactive decision-making styles is reinforced by the emphasis on proactivity as a deliberate intention to create change. Such individuals are not merely reactive but take a proactive stance in shaping their outcomes, which aligns with the proactive decision-making style.

H1: *Proactivity significantly influences decision making styles of managers*

Influence of Self Awareness on Decision Making Styles

a positive relationship between self-awareness and decision-making styles, suggesting that individuals with higher self-awareness are more inclined to adopt decision-making styles that align with a deeper sense of self-awareness. To discuss this hypothesis, let's draw insights from the literature review you've provided self-awareness is described as a multifaceted concept with both transient and enduring qualities. It's portrayed as the experience of "becoming the object of one's own attention," indicating a temporary or state-like attribute. Additionally, self-awareness is presented as the ability to identify, process, and retain self-related information, which reflects a more persistent and trait-like characteristic. This dual perspective on self-awareness is discussed in the work of (Morin 2011).

The literature review doesn't explicitly discuss the link between self-awareness and decision-making styles. However, we can infer that individuals with a higher level of self-awareness may have a deeper understanding of their personal strengths, weaknesses, values, and traits. This understanding can influence their decision-making process in several ways.

Self-awareness may be more attuned to their personal values and goals. As a result, they are more likely to make decisions that align with their authentic selves and reflect their values. This aligns with the concept of making decisions that are congruent with one's self-concept.

H2: *Self Awareness significantly influences decision making styles of managers.*

Relative Positioning and Decision-Making Styles

With individuals who consider relative positioning as an important factor demonstrating decision making styles that align with this perspective. The relationship between relative positioning of referees during soccer matches and decision-making styles. It suggests that individuals who consider relative positioning

as an important factor are likely to adopt decision-making styles that align with this perspective. Let's discuss this hypothesis with reference to the provided literature review.

The literature review highlights that previous research has predominantly focused on the positioning of referees during soccer matches, particularly in terms of their ability to track the ball and keep up with the pace of the game. However, the positions of the main referees concerning foul play incidents have not received extensive attention from researchers, despite the potential significance of this factor in influencing decision-making (Alhazmi 2016).

Alhazmi (2016) proposed that the proximity of referees to foul play incidents can have a crucial impact on their ability to observe and analyze the complete sequence of events. Being too close may limit their field of vision, potentially compromising their ability to make accurate judgments. On the other hand, positioning too far away could lead to errors, as the incidents might not be clearly visible, potentially resulting in incorrect decisions. This indicates that the relative positioning of referees plays a pivotal role in their decision-making process and can influence the outcome of the match.

H3: *Relative Positioning significantly affects decision making styles of managers.*

Adaptability in Shaping Decision-Making Styles

Adaptability positively influences decision-making styles, implying that individuals who are more adaptable tend to exhibit decision-making styles characterized by flexibility and adaptability. To discuss this hypothesis, we can draw insights from the provided literature review (Kvasková et al. 2023). On the other hand, adaptability is described as the consequence of performing adaptive behaviours to address changing conditions, particularly within the context on career development (Savickas and Porfeli 2012) Career learning includes managing professional development tasks, facing professional changes and adapting to professional challenges and situations..

H4: *Adaptability significantly influences decision making styles of managers*

Prudence and Decision-Making Styles

Prudence significantly impacts decision-making styles, suggesting that individuals with a higher degree of prudence tend to adopt more cautious and prudent decision-making styles. To discuss this hypothesis, we can refer to the provided literature review and insights from virtue ethics. In the literature review, you introduced four distinct group decision-making styles: Autocratic, Participative, Consultative, and

Delegatory. These styles represent different approaches to decision-making within groups and organizations, reflecting a spectrum of collaboration and autonomy in the decision-making process.

Prudence, as discussed in the literature review, holds a historical and contemporary association with foresight. The word "prudence" in contemporary English is rooted in a rich history of virtue ethics, with its origins extending back to ancient Greece, passing through ancient Rome, and culminating in its Christianization during medieval Europe. Throughout this historical journey, a common and enduring theme is the emphasis on foresight as a fundamental aspect of prudence (Kimbal et al. 1990).

H5: *Prudence significantly impacts decision making styles of managers.*

Research Framework

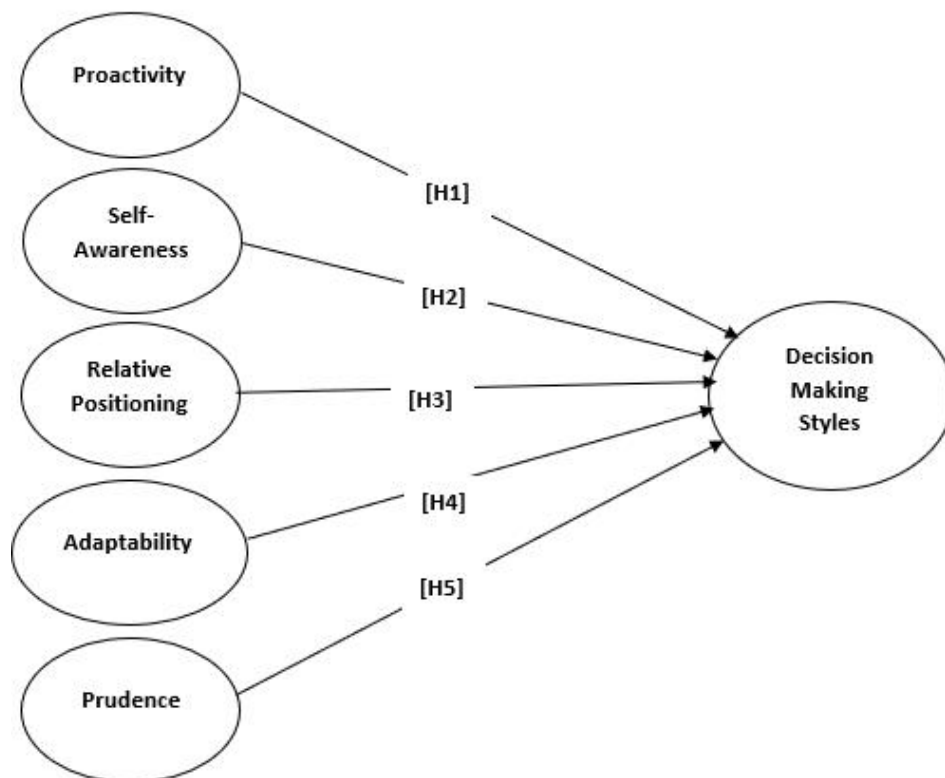


Figure 2.1. Research Framework

Materials and Methods

Research Design

The study adopts a quantitative approach to systematically examine and measure the multifaceted factors influencing individuals' decision-making styles across various domains, aiming to unravel the relevant factors' impact on decision making. This investigation employs a cross-sectional research design to capture an instantaneous

glimpse into the diverse elements shaping individuals' decision-making styles. Partial Least Squares Structural Equation Modelling (PLS-SEM) (Ringlet, Wendi, and Will (2005) was used to analyse the path relationship and SPSS for demographic profile of respondents. The PLS SEM is a tools of choice among various researchers (Kwong-Kay 2013).

Research Population and Sampling Procedures

This research survey is meticulously designed to acquire data from a diverse population of people involved in decision making at different organizational settings, types, and levels. These individuals may contribute valuable insights into the various factors influencing their decision-making styles (Ahmed 2024) . It is therefore, employed convenience sampling as our chosen method, recognizing its compatibility with a managerial audience characterized by a large and diverse representation (Sekaran and Bougie 2016). A sample of 160 respondent was gathered which is a threshold of a multiple of 5 to each constructs' number of items, which is consistent with the sample size guidelines of Ahmed (2024) and Memon et al. (2020). Data was collected through online and social media platforms including emails, Google Docs, WhatsApp, LinkedIn and Facebook.

Measures and Scales

A closed ended questionnaire with five-point Likert scale was used to administer the survey, a brief of the demographic profile of respondents and six latent constructs. These construct are Decision making style as dependent variable, and Proactivity, self-awareness, Relative Positioning, Adaptability and Prudence as independent variables. The items of those constructs were adapted from extant literature pilot tested with 20 managers working in Karachi city as cited in Table 3.1.

Table 3.1. Measures and Pilot Test

S#	Construct	No. of Items	References	Pilot Test (α)
1.	Decision Making Style (DMS)	9	(Hamilton, Shih, & Mohammed 2016)	0.707
2.	Proactivity (PA)	4	(Ding et al. 2023)	0.786
3.	Self-awareness (SA)	4	(Ding et al. 2023)	0.763
4.	Relative Positioning (RP)	5	(Ding et al. 2023)	0.658
5.	Adaptability (A)	6	(Ding et al. 2023)	0.752

6. Prudence (P)	4	(Ding et al. 2023)	0.711
-----------------	---	--------------------	-------

Ethical Consideration

This research prioritizes ethical conduct throughout the study. Participants provided informed consent before participating, knowing the purpose and usage of their responses. Anonymity and confidentiality were ensured through data anonymization and restricted access (Fleming and Zegwaard 2018).

Results

Demographic Profile of Respondents

The demographic profile of managers involved in decision-making within organizations reveals a diverse group. The majority of respondents are male (63.13%), with females representing 36.88%. Most managers are in the younger age brackets, with 40.63% aged 21–30 and 33.13% aged 31–40, highlighting a relatively youthful workforce. The remaining 26.26% are distributed among older age groups, with only 8.13% aged 51–60. A significant proportion of these managers work in service organizations (75.63%), while 24.28% are in manufacturing. In terms of managerial levels, first-line managers constitute the largest group (60.63%), followed by middle-level managers (34.38%) and a smaller percentage of top-level managers (5.00%). Regarding educational qualifications, the largest group of respondents hold a graduate degree (44.38%), followed by those with a master’s degree (38.75%). A smaller proportion have intermediate education (15.63%), and only 1.25% hold a Ph.D. This profile suggests that decision-making responsibilities are predominantly held by young, male managers with graduate or postgraduate qualifications, primarily in service-based organizations, as shown in Table 4.1.

4.1. Demographic Profile

Category	Items	Frequencies	Percentages
Gender	Female	59.00	36.88
	Male	101.00	63.13
Age (years)	21-30	65.00	40.63
	31-40	53.00	33.13
	41-50	29.00	18.13
	51-60	13.00	8.13
Type of Organization	Services	121.00	75.63
	Manufacturing	39.00	24.28
Level of managers	1st Line Managers	97.00	6.63

Qualifications	Middle Level	55.00	34.38
	Top Level	8.00	5.00
	Intermediate	25.00	15.63
	Graduation	71.00	44.38
	Masters	62.00	38.75
	PhD.	2.00	1.25

Measurement Model

The quality criteria of the model were assessed as per Hair et al. (2019); & J. F. Hair et al. (2017) exhibited robust results as shown in Table 4.2 and Fig 4.1.

	Item Loadings	α	CR	AVE
A1	0.829	0.933	0.95	0.75
A2	0.839			
A3	0.865			
A4	0.904			
A5	0.885			
A6	0.873			
DMS1	0.72	0.921	0.93	0.613
DMS	0.753			
DMS3	0.794			
DMS4	0.826			
DMS5	0.727			
DMS6	0.865			
DMS7	0.839			
DMS8	0.76			
DMS9	0.751			
P1	0.843	0.903	0.93	0.775
P	0.885			
P	0.893			
P4	0.899			
PA1	0.834	0.754	0.85	0.607
PA2	0.896			
PA3	0.386			
PA4	0.883			
RP1	0.809	0.733	0.82	0.506

RP2	0.193			
RP3	0.791			
RP4	0.734			
RP	0.823			
SA1	0.872	0.894	0.93	0.759
SA2	0.864			
SA3	0.904			
SA4	0.843			

Cronbach Alpha (α) > 0.7, Composite Reliability (CR) > 0.7, Average Variance Extracted (AVE) > 0.5

Strong psychometric properties (Henseler, Christian M. Ringle, and Sarstedt 2015) are exhibited related to all constructs in the Table 4.2. All constructs demonstrate adequate internal consistency, with Cronbach's Alpha (α) values exceeding the threshold of 0.7 (Nunnally and Bernstein 1994), indicating reliability. Composite Reliability (CR) values also surpass 0.7, affirming the constructs' overall reliability, while Average Variance Extracted (AVE) values are above 0.5 (Sarstedt, Ringle, and Hair 2021), demonstrating good convergent validity. Among the variables, Adaptability (A) shows the strongest internal consistency ($\alpha = 0.933$, CR = 0.95, AVE = 0.75), with consistently high item loadings ranging from 0.829 to 0.904. Decision Making Style (DMS) and Prudence (P) also exhibit strong reliability ($\alpha = 0.921$, 0.903, respectively), though DMS has a lower AVE (0.613). Proactivity (PA) and Relative Positioning (RP) present slightly weaker internal consistency, with lower α (0.754, 0.733) and one item in each construct showing low loadings (PA3 = 0.386, RP2 = 0.193), potentially warranting refinement. Overall, the findings support the reliability and validity of the measures, with some scope for item-level adjustments.

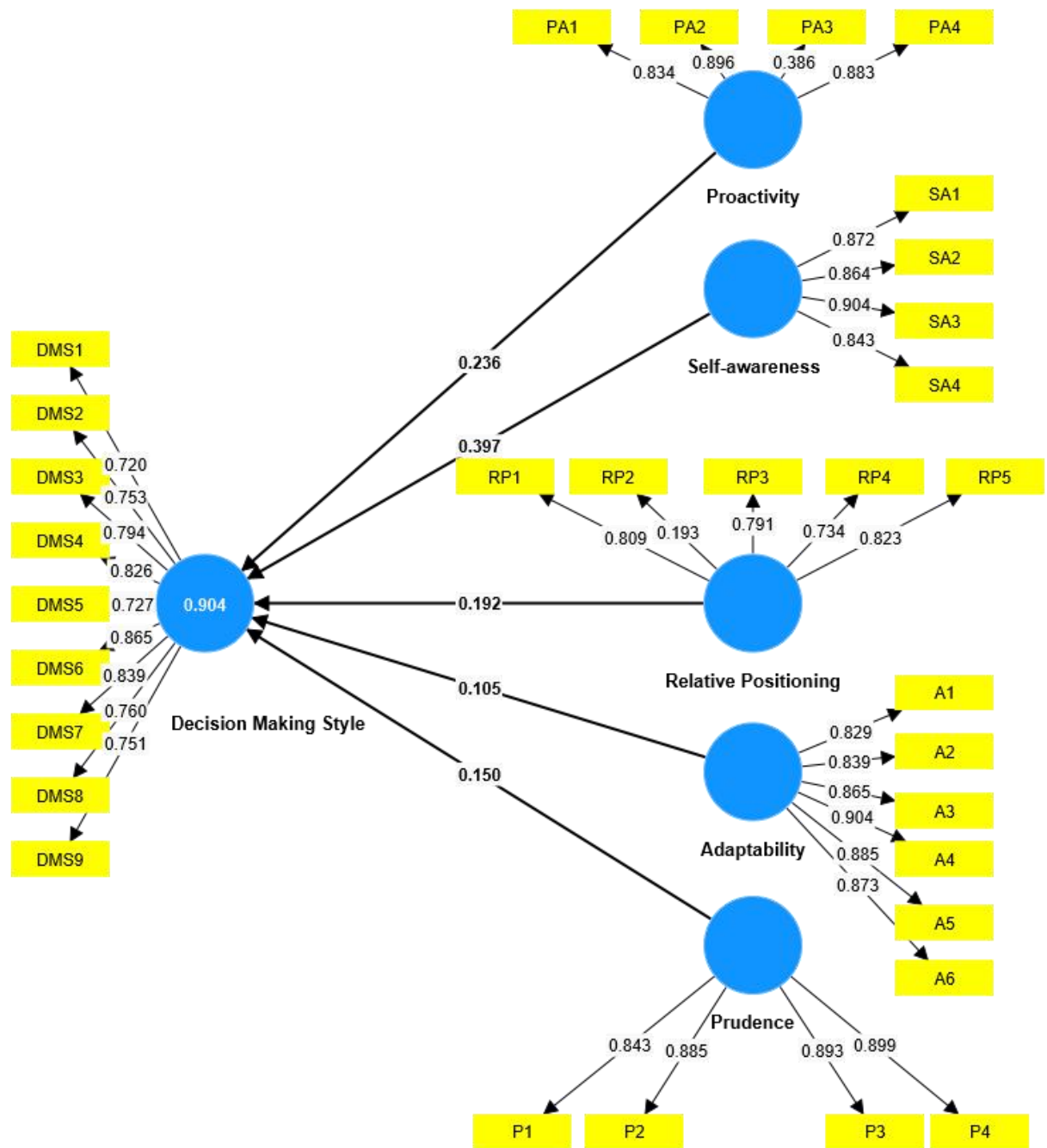


Fig 4.1. Measurement Model

Discriminant Validity

The Heterotrait-Monotrait ratio (HTMT) measure of discriminant validity lies under the threshold value of 0.85 (Henseler, Ringle and Sarstedt, 2015; Hair et al., 2023) showing the distinctiveness of the measures, as shown in Table 4.3.

Table 4.3: HTMT

	Adaptability	Decision Making Style	Proactivity	Prudence	Relative Positioning	Self-awareness
Adaptability						
Decision Making Style	0.936					
Proactivity	0.951	1.036				
Prudence	0.969	0.957	0.999			
Relative Positioning	0.644	0.77	0.849	0.7		
Self-awareness	0.917	0.958	0.888	0.903	0.5	

Fornell-Larcker Criterion

The Fornell-Lacker criterion is a measure of discriminant validity that compares the square root of the average variance extracted for each construct with its correlations with all other constructs in the model (Hair et al. 2013 ; Fornell and Larcker 1981), The Fornell-Larcker criterion confirms discriminant validity among the constructs as each variable's square root of AVE (diagonal) exceeds its correlations with other variables as shown in Table 4.4.

Table 4.4. Fornell-Larcker Criterion

	Adaptability	Decision Making Style	Proactivity	Prudence	Relative Positioning	Self-awareness
Adaptability	0.866					
Decision Making Style	0.869	0.783				
Proactivity	0.800	0.867	0.779			
Prudence	0.891	0.878	0.819	0.880		
Relative Positioning	0.573	0.682	0.658	0.616	0.712	
Self-awareness	0.838	0.872	0.753	0.815	0.459	0.871

Model Explanatory Power

Model explanatory powers were assessed using the R-Square, f-Square, & Q-Square (Hair et al. 2019; Sarstedt et al. 2021). The model demonstrates strong explanatory power for Decision Making Style, with an R² value of 0.904, indicating that the predictors collectively explain 90.4% of its variance (Falk and Miller 1992).

Adaptability has a small effect size ($f^2 = 0.019$), while Self-Awareness shows the highest predictive relevance ($Q^2 = 0.424$). Relative Positioning ($Q^2 = 0.204$), Proactivity ($Q^2 = 0.149$), and Prudence ($Q^2 = 0.038$) contribute moderate to small predictive relevance, suggesting varying impacts on the outcome variables. The findings emphasize the significant role of Adaptability and Self-Awareness in predicting Decision Making Style while highlighting areas for further exploration of other predictors' contributions.

Table 4.5. R-Square, f-Square, & Q-Square

Predictors	Outcome	R-Square	f-Square	Q-Square
Adaptability			0.019	
Proactivity			0.149	
Prudence	Decision Making Style	0.904	0.038	0.891
Relative Positioning			0.204	
Self-Awareness			0.424	

Structural Model

A bootstrap of 5000 sub-samples was performed and yielded the results as shown in

Table 4.6. Path Analysis

Hypotheses	Path Coefficients	S.D	T statistics	P values	
H1	Proactivity -> Decision Making Style	0.236	0.058	4.088	0.000
H2	Self-awareness -> Decision Making Style	0.397	0.070	5.675	0.000
H3	Relative Positioning -> Decision Making Style	0.192	0.050	3.844	0.000
H4	Adaptability -> Decision Making Style	0.105	0.075	1.399	0.162

	Prudence -> Decision Making	0.150	0.082	1.819	0.069
H5	Style				

The results reveal valuable insights into the factors influencing Decision Making Style of Pakistani managers. The variable of Self-Awareness emerges as the strongest predictor, with the highest path coefficient ($\beta = 0.397$) and statistical significance ($T = 5.675$, $p = 0.000$). This finding underscores the critical role of individuals' self-awareness in making effective decisions, suggesting that fostering self-awareness could substantially enhance decision-making capabilities.

The other variables such as Proactivity ($\beta = 0.236$, $T = 4.088$, $p = 0.000$) and Relative Positioning ($\beta = 0.192$, $T = 3.844$, $p = 0.000$) also reflect significant positive impacts on decision making. Proactivity emphasizes the importance of taking initiative and anticipating changes, while Relative Positioning highlights the ability to evaluate one's position relative to others or within a given context. Together, these constructs suggest that forward-thinking and situational awareness are integral to sound decision-making.

However, Adaptability ($\beta = 0.105$, $T = 1.399$, $p = 0.162$) and Prudence ($\beta = 0.150$, $T = 1.819$, $p = 0.069$) do not exhibit significant effects on the decision-making styles of Pakistani managers. While these factors may still play a role in decision-making, their weaker statistical support indicates that their contributions may be context-dependent or less direct. Adaptability's lower significance could imply that while flexibility is important, it may not be a primary driver of decision-making in the examined context. Similarly, Prudence's marginal significance ($p = 0.069$) suggests that while careful judgment contributes, its impact may require further exploration with a larger sample size or different contexts.

Overall, the results highlight the importance of prioritizing Self-Awareness, Proactivity, and Relative Positioning in interventions or programs aimed at enhancing decision-making. Meanwhile, future research could delve deeper into the roles of Adaptability and Prudence, exploring potential moderating variables or situational factors that may influence their contributions to decision-making.

Discussions

The findings of this study offer significant insights into the factors shaping Decision Making Style (DMS) and contribute to the understanding of how individual attributes, whether cognitive processes, or individual traits influence decision-making processes. Self-Awareness, Proactivity, and Relative Positioning emerged as the most influential

predictors of DMS, demonstrating their pivotal roles in enhancing decision-making effectiveness which is consistent with Grant and Ashford, (2008). Self-Awareness, with the highest path coefficient ($\beta = 0.397$), highlights the importance of individuals' ability to introspect and understand their emotions, strengths, and limitations in decision-making scenarios which is inline with Morin, (2011). This suggests that decision-makers who are more self-aware are better equipped to navigate complex situations and make informed choices.

Proactivity ($\beta = 0.236$) emphasizes the significance of taking initiative and anticipating future challenges. Proactive individuals are likely to demonstrate forward-thinking and preparedness, essential traits for effective decision-making. Similarly, Relative Positioning ($\beta = 0.192$) underscores the importance of contextual awareness and the ability to evaluate one's standing within a broader framework. This construct is particularly relevant in environments where competitive dynamics or team interactions are prominent (Alhazmi, 2016).

In contrast, Adaptability and Prudence did not demonstrate statistically significant effects, indicating that while these traits may contribute to decision-making, their impact is less direct or context dependent. The non-significance of Adaptability may reflect that while flexibility is valuable, it might not directly translate to consistent decision-making improvements without additional factors, such as situational pressures or external constraints. Prudence, while approaching significance ($p = 0.069$), suggests that careful judgment may play a more nuanced role, warranting further exploration of its interaction with other variables or decision-making scenarios. The contradiction to Alhazmi, (2016) requires further investigation. These findings highlight the need for targeted development programs that strengthen Self-Awareness, Proactivity, and Relative Positioning among decision-makers. Moreover, the limited significance of Adaptability and Prudence points to the need for future studies to explore moderating variables, such as organizational culture, situational uncertainty, or environmental volatility, which could influence their relevance to decision-making.

Conclusion

This study underscores the critical importance of Self-Awareness, Proactivity, and Relative Positioning in shaping Decision Making Style, providing a robust foundation for both theoretical and practical implications. Self-Awareness was identified as the strongest predictor, emphasizing its role in fostering effective decision-making by

promoting introspection and self-regulation. Proactivity and Relative Positioning further support the need for initiative and contextual awareness in decision-making processes.

While Adaptability and Prudence were not statistically significant, their potential roles in decision-making warrant further investigation, particularly in dynamic or high-stakes environments. These findings offer actionable insights for leadership development, suggesting that organizations should focus on enhancing employees' self-awareness, fostering a proactive mindset, and strengthening situational evaluation skills to improve decision-making outcomes. Future research should explore the contextual and moderating variables that may influence the roles of Adaptability and Prudence, ensuring a more comprehensive understanding of decision-making dynamics across diverse settings.

Limitations and Future Research Directions

The study offers a general understanding of decision making styles and lacks context, industry type, and management level specific considerations. Moreover, the sample size is smaller for this type of general investigations. Therefore, future research may be invested in industry, managerial level and context specific investigations. Specific Studying factors that influence decision-making styles is limited by the intricate and unpredictable nature of human behaviour. Research can recognize general trends and factors affecting decision-making but may have difficulty incorporating individual variations and specific situational circumstances. Furthermore, the subjective character of decision-making hinders the objective measurement and quantification of the impact of different elements. Research in this field can offer significant insights but may not comprehensively depict the complexities of decision-making processes in every situation.

Managerial Implications

Decision making is a part and parcel of managers in any organizations. The findings of this study will help organizations and leader to pay more attention to the variables of this study on understanding the decision-making pattern on their managers. Organizations should prioritize developing self-awareness among managers, as it has the strongest influence on decision-making, through training in emotional intelligence and reflective practices. Enhancing proactivity and relative positioning is equally essential, as these traits drive initiative and contextual awareness. Conversely, the weaker roles of adaptability and prudence suggest the need for context-specific

strategies, such as fostering flexibility in dynamic environments and prudent judgment in high-stakes decisions. Tailored development programs can help managers optimize their decision-making capabilities, enhancing organizational performance and leadership effectiveness

References

- Ahmed, Sirwan Khalid. 2024. "How to Choose a Sampling Technique and Determine Sample Size for Research: A Simplified Guide for Researchers." *Oral Oncology Reports* 12.
- Alhazmi, Abdulrhman D. 2016. "SOCCER OFFICIALS IN RELATION TO THEIR Keywords."
- Ding, Cody, Hung Gay Fung, and Yan Zhang. 2023. "Yin-Yang Framework of Decision-Making: Development and Assessment of Yin-Yang Decision-Making Styles Questionnaire." *Personality and Individual Differences* 205(January):112090. doi: 10.1016/j.paid.2023.112090.
- Driver, M. J. 1979. "Individual Decision-Making and Creativity." *Organizational Behavior* (Columbus, OH: Grid Publishers.).
- Evans, Amanda M., Dana Heller Levitt, and Stacy Henning. 2012. "The Application of Ethical Decision-Making and Self-Awareness in the Counselor Education Classroom." *Journal of Counselor Preparation and Supervision* 4(2). doi: 10.7729/42.0029.
- Falk, R. Frank, and Nancy B. Miller. 1992. "A Primer for Soft Modeling." *The University of Akron Press* (April):80.
- Fleming, Jenny, and Karsten E. Zegwaard. 2018. "Methodologies, Methods and Ethical Considerations for Conducting Research in Work-Integrated Learning." *International Journal of Work-Integrated Learning* 19(3):205–13.
- Fornell, C., and David F. Larcker. 1981. "Structural Equation Models with Unobservable Variables and Measurement Error." *Algebra and Statistics* 47(3):138-145.
- Frese, Michael, and Doris Fay. 2001. "PERSONAL INITIATIVE: AN ACTIVE PERFORMANCE CONCEPT FOR WORK IN THE 21st CENTURY." 23:133–87.
- Fung, A. 2014. "International Business Strategies: A Review and Extension of Theories." 47:(5-6), (116-130).
- Grant, Adam M., and Susan J. Ashford. 2008. "The Dynamics of Proactivity at Work." 28:3–34. doi: 10.1016/j.riob.2008.04.002.
- Gu, J., C. Strauss, R. Bond, and K. Cavanagh. 2015. "How Do Mindfulness-Based Cognitive Therapy and Mindfulness-Based Stress Reduction Improve Mental Health and Wellbeing? A Systematic Review and Meta-Analysis of Mediation Studies."
- Hair, J. F., G. T. M. Hult, C. M. Ringle, and M. Sarstedt. 2017. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). 2nd Edition*. Thousand Oaks, CA.: Sage Publications Inc.
- Hair, Joseph F. Jr., G. Tomas M. Hult, Christian M. Ringle, and Marko Sarstedt. 2013. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Vol. 46.

- Hair, Joseph F. Jr., G. Tomas M. Hult, Christian M. Ringle, Marko Sarstedt, Nicholas P. Danks, and Soumya Ray. 2023. *Review of Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*. Vol. 30.
- Hair, Joseph F., Jeffrey J. Risher, Marko Sarstedt, and Christian M. Ringle. 2019. "When to Use and How to Report the Results of PLS-SEM." *European Business Review* 31(1):2–24. doi: 10.1108/EBR-11-2018-0203.
- Hamilton, Katherine, Shin I. Shih, and Susan Mohammed. 2016. "The Development and Validation of the Rational and Intuitive Decision Styles Scale." *Journal of Personality Assessment* 98(5):523–35. doi: 10.1080/00223891.2015.1132426.
- Harren, V. A. 1979. "A Model of Career Decision Making for College Students." *Journal of Vocational Behavior* 14:119–33.
- Hartung, Paul J., Erik J. Porfeli, and Fred W. Vondracek. 2008. "Career Adaptability in Childhood." *Career Development Quarterly* 57(1):63–74. doi: 10.1002/j.2161-0045.2008.tb00166.x.
- Henseler, Jörg, Christian M. Ringle, and Marko Sarstedt. 2015. "A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling." *Journal of the Academy of Marketing Science* 43(1):115–35. doi: 10.1007/s11747-014-0403-8.
- Henseler, Jörg, Christian M Ringle, and Marko Sarstedt. 2015. "A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling." *Journal of the Academy of Marketing Science* 43(1)(December 2016):115–35. doi: 10.1007/s11747-014-0403-8.
- J. Patrick, Dobel. 1998. "Political Prudence and the Ethics of Leadership." 58:74–81.
- J. Patrick, Dobel. 1999. "Public Integrity."
- Janis, I. L., and L. Mann. 1977. "Decision Making. New York: The Free Press."
- Kimbal, Precautionary, Large Author, Miles S. Kimball Source, Econometric Society, and Stable Url. 1990. "E-." 58(1):53–73.
- Kvasková, Lucia, Petr Hlado, Petr Palíšek, Václav Šašinka, Andreas Hirschi, Stanislav Ježek, and Petr Macek. 2023. "A Longitudinal Study of Relationships Between Vocational Graduates' Career Adaptability, Career Decision-Making Self-Efficacy, Vocational Identity Clarity, and Life Satisfaction." *Journal of Career Assessment* 31(1):27–49. doi: 10.1177/10690727221084106.
- Kwong-Kay, Ken. 2013. "Partial Least Squares Structural Equation Modeling (PLS-SEM) Techniques Using SmartPLS." *Marketing Bulletin* 24(1):1–32.
- Labutina, Natalya, Sergey Polyakov, Liudmila Nemtyreva, Alina Shuldishova, and Olga Gizatullina. 2024. "Neural Correlates of Social Decision-Making." *Iranian Journal of Psychiatry* 19(1):148–54. doi: 10.18502/ijps.v19i1.14350.
- Leykin, Yan, and Robert J. Derubeis. 2010. "Decision-Making Styles and Depressive Symptomatology: Development of the Decision Styles Questionnaire." *Judgment and Decision Making* 5(7):506–15. doi: 10.1017/s1930297500001674.

- Memon, A. M., Hiram Ting, Jun-Hwa Cheah, Ramayah Thurasamy, Francis Chuah, and Tat Huei Cham. 2020. "SAMPLE SIZE FOR SURVEY RESEARCH: REVIEW AND RECOMMENDATIONS." *Journal of Applied Structural Equation Modeling* 4(2):2590–4221.
- Morin, Alain. 2011. "Self-Awareness Part 1: Definition, Measures, Effects, Functions, and Antecedents." *Social and Personality Psychology Compass* 5(10):807–23. doi: 10.1111/j.1751-9004.2011.00387.x.
- Murray, and Mark Grimsley. 1994. "On Strategy. In *The Making of Strategy*." 1–24.
- Nunnally, J. C., and I. H. Bernstein. 1994. *Psychometric Theory (3rd Ed.)*. New York: McGraw-Hill.
- Parker, Sharon K., Helen M. Williams, and Nick Turner. 2006. "Modeling the Antecedents of Proactive Behavior at Work." *Journal of Applied Psychology* 91(3):636–52. doi: 10.1037/0021-9010.91.3.636.
- Pearlman, K., and M. F. Barney. 2000. "Managing Selection in Changing Organizations: Human Resource Strategies." 3–72.
- Rudge, Susie, Janet Denise Feigenbaum, and Peter Fonagy. 2020. "Mechanisms of Change in Dialectical Behaviour Therapy and Cognitive Behaviour Therapy for Borderline Personality Disorder: A Critical Review of the Literature." *Journal of Mental Health* 29(1):92–102. doi: 10.1080/09638237.2017.1322185.
- Sarstedt, M., C. M. Ringle, and J. F. Hair. 2021. *Partial Least Squares Structural Equation Modeling*. Springer.
- Savickas, Mark L. 1997. 1997. "Career Adaptability: An Integrative Construct for Life-Span, Life-Space Theory." *Career Development Quarterly* 45(3):247–59. doi: 10.1002/j.2161-0045.1997.tb00469.x.
- Savickas, Mark L., and Erik J. Porfeli. 2012. "Career Adapt-Abilities Scale: Construction, Reliability, and Measurement Equivalence across 13 Countries." *Journal of Vocational Behavior* 80(3):661–73. doi: 10.1016/j.jvb.2012.01.011.
- Sekaran, U., and R. Bougie. 2016. *Research Methods for Business; A Skill-Building Approach*. 17th ed. West Sussex, United Kingdom: John Wiley & Sons Ltd.
- Steffen, E., P. J. Crutzen, and J. R. McNeill. 2007. "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature." 36:614–21.
- Thompson, Jeffery A. 2005. "Proactive Personality and Job Performance: A Social Capital Perspective." *Journal of Applied Psychology* 90(5):1011–17. doi: 10.1037/0021-9010.90.5.1011.
- Ulanowicz, R. E. 2002. "The Balance between Adaptability and Adaptation." *BioSystems* 64(1–3):13–22. doi: 10.1016/S0303-2647(01)00170-8.
- Yousef, Darwish A. 1998. "Predictors of Decision-Making Styles in a Non-Western Country." *Leadership & Organization Development Journal* 19(7):366–73. doi: 10.1108/01437739810242522.

Yusif, Salifu, and Abdul Hafeez-Baig. 2024. "Impact of Stakeholder Engagement Strategies on Managerial Cognitive Decision-Making: The Context of CSP and CSR." *Social Responsibility Journal* 20(6):1101–21.