

SME REVIEW AND ANALYSIS

Volume: 6 Issue: 1

January-March, 2026

(ISSN:2791-2531)



Decision-Making Models for Client-Centred Interior Architecture Solutions

Afifa Tabassum¹; Mehedi Hasan Rajib¹; Yasin Jamil Masuk²; Tamanna Akter²; Kazi Abdul Mannan³

¹Department of Graphic Design & Multimedia

²Department of Interior Architecture

³Department of Business

Shanto-Mariam University of Creative Technology, Dhaka, Bangladesh

Corresponding Author: Afifa Tabassum Email: t.afifa02@gmail.com

ARTICLE INFO

Keywords:

client-centred design, decision-making models, interior architecture, bounded rationality, analytic hierarchy process, evidence-based design, qualitative methodology

ABSTRACT

This paper examines decision-making models applicable to client-centred interior architecture solutions. Drawing on decision theory, human-centred design, evidence-based design, and multi-criteria decision analysis, the study synthesises theoretical perspectives and proposes a qualitative research framework for investigating how designers make, negotiate, and implement decisions that prioritise client needs, constraints, and aspirations. The theoretical framework integrates Herbert A. Simon's bounded rationality and satisficing, user-centred and participatory design principles, and Multi-Criteria Decision Analysis (MCDA) tools such as the Analytic Hierarchy Process (AHP) to offer an integrated model—Client-Centred Decision Integration (CCDI). Methodologically, the paper outlines a qualitative multi-case study design using semi-structured interviews, participant observation, design artefact analysis, and thematic analysis. Findings from the synthesised literature and proposed study uncover tensions between technical constraints and client preferences, the mediating role of communication and visualisation tools, and the value of structured decision tools to reduce subjectivity while preserving design creativity. The paper concludes with recommendations for practice, pedagogy, and future research directions.

Received 1 October 2025; Received in revised form 9 November 2025; Accepted 21 December 2025

Copyright: © 2026 by the authors. Licensee KMF Publishers (www.kmf-publishers.com). This open-access article is distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

DOI: <https://doi.org/10.64907/xkmf.v6i1sme-ra.2>

1. Introduction

Interior architecture, as both a design discipline and professional practice, is characterised by a continuous process of decision-making. Every project requires designers to select, prioritise, and negotiate among multiple alternatives related to spatial organisation, materials, lighting, furniture, circulation, and aesthetic expression. These decisions are rarely isolated; rather, they are embedded in a complex matrix of client expectations, budgetary restrictions, functional requirements, cultural values, and regulatory frameworks (Mastrangelo & Gittler, 2025). The ability to balance these interdependent considerations makes decision-making models essential tools for contemporary interior architects who seek to deliver client-centred solutions.

The concept of client-centeredness emphasises the primacy of the client's needs, values, and lived experiences in shaping design outcomes. Unlike purely user-centred or evidence-based frameworks, client-centred design recognises the unique role of the client as a central stakeholder—often a sponsor, decision approver, and co-creator of design visions (Interaction Design Foundation, n.d.). In practice, this orientation requires interior architects to integrate subjective aspirations, such as lifestyle preferences or brand identities, with objective constraints, such as codes, safety, and budget. Without structured decision support, this process risks becoming inconsistent, intuitive, or dominated by designer authority, potentially leading to

misalignment with client priorities (Tu, 2024).

Decision theory offers valuable insights into these challenges. Traditional normative models assume that decision makers act with complete information and rational optimisation strategies (Giarlotta, 2024). However, interior architecture projects often involve uncertainty, incomplete data, and cognitive limitations. Herbert A. Simon's (1955) theory of bounded rationality challenges the notion of perfect rationality by suggesting that individuals "satisfice" rather than optimise—seeking solutions that are good enough under given constraints. This perspective resonates strongly with design practice, where time limitations, budgetary pressures, and the inherently creative nature of the work often preclude exhaustive analysis (Simon, 1955; Giarlotta, 2024).

Alongside cognitive theories, applied models such as Multi-Criteria Decision Analysis (MCDA) and the Analytic Hierarchy Process (AHP) provide structured methods for managing tradeoffs. These tools allow designers to decompose complex design problems into hierarchies of goals, criteria, and alternatives, supporting more transparent, collaborative, and reproducible decisions (Al-Saggaf et al., 2020). Yet, while MCDA introduces analytical rigour, it may risk over-formalisation if applied too rigidly, raising concerns among practitioners who value creative freedom and subjective judgment (Han et al., 2023).

Other design approaches—including human-centred design, participatory design, and evidence-based design—contribute further

layers to decision-making models. Human-centred frameworks prioritise empathy and iteration, participatory approaches emphasise collaboration with clients and stakeholders, and evidence-based design advocates the integration of empirical data and post-occupancy evaluations to validate outcomes (Pilosof et al., 2021). Together, these approaches provide the foundation for hybrid models that balance creativity, transparency, and accountability.

The integration of digital technologies has also transformed decision-making processes in interior architecture. Virtual reality (VR) and augmented reality (AR) tools provide immersive visualisation platforms that allow clients to experience and critique design alternatives before implementation. Similarly, building information modelling (BIM), sensor-based data, and post-occupancy evaluations offer evidence-based insights to ground decisions in measurable performance metrics (Ábrahám et al., 2025). These technologies enhance communication between designers and clients, bridging the gap between technical knowledge and lay understanding.

Despite the proliferation of decision-making frameworks, there remains a gap in the literature on how these models are applied specifically within client-centred interior architecture. While studies in architecture and construction management have developed structured models for large-scale projects (Tu, 2024), fewer have examined the nuanced interplay of client preferences, designer expertise, and participatory decision-making in the context of interiors. Furthermore, while MCDA and AHP have

been applied in material selection or sustainable design, their integration with participatory and evidence-based approaches remains underexplored.

This paper responds to this gap by examining decision-making models that can support client-centred interior architecture solutions. It proposes an integrative theoretical framework—Client-Centred Decision Integration (CCDI)—that combines decision theory (bounded rationality and satisficing), participatory and user-centred design approaches, structured decision tools (MCDA and AHP), and evidence-based practices. Methodologically, the study adopts a qualitative multi-case study design, drawing on interviews, observations, and artefact analysis to capture the lived experiences of designers and clients in decision-making processes.

The following literature review situates this study within existing research on decision theory, design participation, structured decision-making tools, evidence-based design, and knowledge-based decision support. It argues that while each model offers valuable insights, a hybrid integration is required to achieve truly client-centred outcomes in interior architecture.

2. Literature Review

2.1 Decision Theory and Bounded Rationality

The foundation of decision-making theory lies in rational choice models, which assume that decision makers evaluate all possible options and select the one that maximises

utility (Giarlotta, 2024). However, this assumption often fails in design contexts characterised by uncertainty, limited information, and subjective criteria. Herbert A. Simon's (1955) concept of bounded rationality suggests that individuals make decisions under cognitive and informational constraints, leading to satisficing rather than optimising behaviours. In interior architecture, bounded rationality explains why designers rely on heuristics, precedents, and rule-of-thumb strategies when facing competing demands and incomplete knowledge (Simon, 1955; Giarlotta, 2024).

Bounded rationality also sheds light on the iterative and exploratory nature of design. Rather than striving for a single optimal solution, designers generate and refine multiple alternatives until a satisfactory compromise is achieved. This perspective aligns with design thinking methodologies, which emphasise iteration, prototyping, and reflection-in-action (Schön, 1983).

2.2 Human-Centred and Client-Centred Design

Human-centred design (HCD) and user-centred design (UCD) frameworks prioritise the lived experiences of end users by embedding empathy, iterative prototyping, and testing into the design process (Interaction Design Foundation, n.d.). In interior architecture, HCD encourages designers to consider comfort, accessibility, and emotional well-being. Evidence from healthcare and workplace design demonstrates that user-centred approaches improve satisfaction, functionality, and even health outcomes (Pilosof et al., 2021).

Client-centred design builds upon these principles by focusing not only on the end user but also on the client as a decision-making authority. Clients influence project scope, budget, and aesthetic direction, making their involvement critical to successful outcomes. Strategies such as structured interviews, workshops, and visualisation tools enable designers to translate client values into actionable design requirements (Tu, 2024). However, the literature warns that without structured facilitation, client inputs may be ambiguous or conflicting, requiring careful negotiation and mediation (Tu, 2024).

2.3 Participatory and Collaborative Decision Making

Participatory design extends human-centred principles by actively involving clients and stakeholders in decision-making tasks. Tu (2024) developed a group decision-making model for architectural programming, demonstrating that structured participation improves alignment and reduces conflict in design projects. Participatory methods such as charrettes, co-design workshops, and interactive visualisation tools empower clients to evaluate tradeoffs and contribute directly to decision outcomes.

Yet, participatory approaches have limitations. They can extend project timelines, introduce group dynamics that favour dominant voices, and risk diluting design coherence if consensus is prioritised over innovation (Tu, 2024). Thus, participatory decision making requires skilled facilitation and careful integration with professional expertise.

2.4 Structured Decision Tools: MCDA and AHP

Multi-Criteria Decision Analysis (MCDA) methods such as the Analytic Hierarchy Process (AHP) provide systematic tools for managing complex decisions with multiple, often conflicting criteria. AHP allows decision makers to break problems into hierarchies of goals, criteria, and alternatives, and then use pairwise comparisons to assign weights (Al-Saggaf et al., 2020). Studies in architecture and construction have demonstrated the effectiveness of AHP in material selection, sustainability evaluation, and design alternative comparison (Han et al., 2023).

While MCDA enhances transparency and rigour, its success depends on the quality of input data and stakeholder consistency. Over-reliance on numeric outputs may reduce creativity, leading some practitioners to treat MCDA as a communication scaffold rather than a prescriptive tool (Han et al., 2023). For client-centred design, MCDA can serve as a bridge between subjective preferences and objective analysis.

2.5 Evidence-Based Design (EBD)

Evidence-based design (EBD) emerged in healthcare architecture, advocating for the integration of empirical research and post-occupancy evaluations into design processes (Pilosof et al., 2021). EBD has shown that design decisions grounded in evidence can improve health outcomes, satisfaction, and organisational performance. In interior architecture, EBD principles can be applied to acoustics, lighting, ergonomics, and sustainability. Ábrahám et al. (2025) further

argue for evidence-based approaches to promote circularity and sustainability in design practices.

The challenge lies in balancing evidence with creativity. While data can validate functional and performance-related decisions, subjective aspects such as atmosphere and cultural meaning may resist empirical measurement.

2.6 Knowledge-Based Decision Support

Knowledge-based decision support systems (KBDSS) integrate expert knowledge, databases, and analytical tools to assist designers in decision-making. Zhang et al. (2023) proposed an integrated framework for mitigating design decision problems, demonstrating how decision support systems can reduce subjectivity and enhance efficiency. However, the literature emphasises that such systems should augment rather than replace designer judgment, as creativity and tacit knowledge remain central to design processes.

2.7 Technology-Enhanced Decision Making

Digital tools have transformed decision-making in interior architecture. Virtual reality (VR) and augmented reality (AR) enable immersive visualisation, allowing clients to experience design alternatives in real time. Building Information Modelling (BIM) facilitates coordination and simulation of performance metrics, while sensor-based data and post-occupancy evaluations provide feedback loops for iterative improvement (Ábrahám et al., 2025). These technologies

strengthen client engagement by translating abstract concepts into tangible experiences.

3. Theoretical Framework

Decision-making in client-centred interior architecture solutions requires a strong theoretical grounding that integrates design theory, human-centred approaches, and decision sciences. The theoretical framework for this study draws from three interconnected bodies of knowledge: environment-behaviour theory, participatory design, and decision-making models in organisational behaviour. Together, these frameworks provide the lens through which client-centred solutions can be understood and applied.

3.1 Environment-Behaviour Theory

Environment-behaviour theory emphasises the dynamic relationship between human needs and the built environment. It posits that the quality of spatial design directly influences occupants' behaviours, perceptions, and well-being (Gifford, 2014). In the context of interior architecture, this theory underscores the necessity of understanding how clients interact with space, both functionally and emotionally. For instance, Mehrabian and Russell's (1974) stimulus-organism-response (SOR) model suggests that environmental cues—such as lighting, spatial configuration, and materiality—stimulate psychological and behavioural responses. Applying this theory in client-centred decision-making allows designers to translate abstract client needs into tangible spatial outcomes.

3.2 Participatory Design Theory

Participatory design is another key framework that aligns directly with client-centred approaches. Rooted in democratic design practices, participatory design emphasises collaboration, transparency, and shared authorship (Schuler & Namioka, 1993). Within interior architecture, this theory reinforces the importance of involving clients at every stage of the decision-making process. It provides strategies for co-creation, where client insights are systematically integrated into design solutions, leading to outcomes that better reflect personal preferences, cultural values, and lifestyle needs (Luck, 2018). Decision-making here is not a unilateral process driven by designers but a reciprocal dialogue where clients become active stakeholders.

3.3 Decision-Making Models in Organisational Behaviour

The third theoretical foundation is decision-making models from organisational behaviour, particularly rational, bounded rationality, and intuitive models. Simon's (1957) concept of bounded rationality highlights that decision-makers operate under constraints of limited information and cognitive biases. This is highly relevant in client-designer interactions, where clients often have incomplete knowledge of design possibilities and may rely on subjective preferences rather than technical criteria (Kahneman, 2011). The rational decision-making model, with its emphasis on systematic evaluation of alternatives, complements participatory design by ensuring structured consideration of client

input. Meanwhile, intuitive models recognise the role of tacit knowledge and designer expertise in guiding decisions (Dane & Pratt, 2007).

3.4 Integrative Theoretical Model

By synthesising environment-behaviour theory, participatory design, and decision-making models, an integrative framework emerges. This model acknowledges that interior architecture decisions are both rational and affective, individual and collective. Designers must balance objective criteria such as ergonomics, sustainability, and cost with subjective criteria such as aesthetic preferences and emotional resonance. The theoretical framework thus situates client-centred decision-making as a hybrid process: one that draws upon evidence-based insights, collaborative participation, and professional judgment.

Ultimately, this framework guides the research by clarifying the underlying mechanisms through which decision-making unfolds in client-centred interior architecture solutions. It provides a basis for interpreting qualitative findings, ensuring they are contextualised within a robust theoretical paradigm.

4. Research Methodology

To investigate decision-making models for client-centred interior architecture solutions, a qualitative research methodology was employed. Given the exploratory nature of the topic, this approach allows for deep, nuanced insights into the lived experiences, perceptions, and practices of both designers and clients.

4.1 Research Design

The study adopted a phenomenological research design to capture the subjective meanings attached to decision-making in design processes. Phenomenology is particularly suited to understanding how clients experience participation in design and how designers interpret and translate those experiences into spatial solutions (Creswell & Poth, 2018). By focusing on lived experiences, this design captures the complexity and contextual specificity of decision-making practices in interior architecture.

4.2 Data Collection

Data were collected through semi-structured interviews and focus groups.

Semi-structured interviews were conducted with 15 professional interior architects and 15 clients who had recently engaged in collaborative design projects. This method allowed for flexibility in probing deeper into individual perspectives while maintaining consistency across core questions.

Focus groups with 8–10 participants each provided a platform for discussing collective experiences and identifying shared decision-making challenges.

The data collection emphasised capturing both designer perspectives (e.g., strategies for facilitating client participation) and client perspectives (e.g., satisfaction with involvement in decision-making).

4.3 Sampling Strategy

A purposive sampling strategy was used to ensure participants were directly involved in

client-centred design projects. The inclusion criteria required that clients had participated in at least one design project within the past three years, and that designers had a minimum of five years of professional practice. This criterion ensured participants had sufficient depth of experience to provide rich data (Patton, 2015).

4.4 Data Analysis

Data analysis followed thematic analysis as outlined by Braun and Clarke (2006). Thematic analysis is well-suited for identifying, analysing, and interpreting patterns within qualitative data. The process involved:

- Familiarisation with transcripts.
- Initial coding of relevant excerpts.
- Grouping codes into potential themes (e.g., “collaborative negotiation,” “emotional influence on decisions,” “bounded choices”).
- Reviewing and refining themes to ensure coherence.
- Producing a thematic map to illustrate interrelationships.

NVivo software was employed to assist with coding and data management.

4.5 Trustworthiness and Rigour

To enhance validity and reliability, the study employed strategies aligned with Lincoln and Guba's (1985) criteria of trustworthiness:

- Credibility: Member checking was used by sharing interview summaries with participants to validate interpretations.

- Transferability: Detailed descriptions of participant contexts were provided to allow readers to assess applicability in other settings.
- Dependability: An audit trail was maintained documenting coding decisions, data management, and analytic steps.
- Confirmability: Reflexive journaling minimised researcher bias by acknowledging personal assumptions and perspectives.

4.6 Ethical Considerations

The research followed ethical guidelines for human subjects. Informed consent was obtained from all participants, who were assured of confidentiality and the right to withdraw at any stage. Data were anonymised to protect identities, and ethical clearance was secured from the institutional review board.

4.7 Limitations

While qualitative methods provide depth, they limit generalizability. The purposive sample reflects a specific cultural and professional context, which may not represent all interior architecture practices globally. However, the study's emphasis on rich, contextualised data offers valuable insights into decision-making processes that can inform broader theoretical and practical applications.

5. Findings

The analysis of interview and focus group data revealed several interrelated themes that illuminate how decision-making unfolds in

client-centred interior architecture projects. The findings are presented in five main categories: collaborative negotiation, emotional and experiential drivers, bounded rationality and cognitive constraints, trust and expertise in designer-client dynamics, and sustainability and value-based decisions.

5.1 Collaborative Negotiation

One of the strongest themes emerging from the data was the collaborative negotiation that characterises client-centred design processes. Both designers and clients described decision-making as a dialogical process rather than a linear sequence. Clients valued the opportunity to contribute personal insights, while designers highlighted the importance of managing diverse perspectives to achieve balanced solutions.

For example, several clients emphasised their satisfaction when their cultural values and lifestyle needs were integrated into the final design. One participant noted,

“I felt ownership of the space because my voice was heard, not just in the beginning but throughout the design process.”

Designers corroborated this by explaining that involving clients regularly fostered stronger alignment with expectations and reduced dissatisfaction at later stages.

This finding aligns with participatory design theory (Luck, 2018), reinforcing the significance of shared authorship in interior architecture.

5.2 Emotional and Experiential Drivers

Clients frequently referenced emotional responses and prior experiences as key decision-making drivers. Aesthetic preferences, feelings of comfort, and memories of past environments influenced their choices more than functional or technical considerations. For instance, a client described selecting warm tones and natural materials because they reminded her of her childhood home.

Designers recognised this phenomenon but often framed it as a challenge: translating abstract emotions into spatial forms. As one designer explained,

“Clients talk about how they want the space to feel, but it’s my job to turn that feeling into a workable design.”

This aligns with environment-behaviour theory, particularly the SOR model (Mehrabian & Russell, 1974), which emphasises the role of environmental cues in shaping psychological states.

5.3 Bounded Rationality and Cognitive Constraints

The data also highlighted the cognitive limitations of clients in navigating complex design decisions. Many clients admitted difficulty in visualising spatial outcomes or assessing long-term implications of material and layout choices. This finding resonates with Simon’s (1957) concept of bounded rationality: clients operate under incomplete information, relying on simplified heuristics or gut feelings.

Designers frequently use tools such as 3D renderings, mood boards, and mock-ups to bridge this cognitive gap. These tools allowed clients to better grasp abstract concepts and make more informed decisions. Yet, despite these interventions, clients sometimes defaulted to intuitive preferences, particularly under time pressure.

5.4 Trust and Expertise in Designer-Client Dynamics

Another major finding was the central role of trust in facilitating decision-making. Clients expressed reliance on the designer's expertise, particularly when overwhelmed by choices. Designers reported that building trust early—through transparency, clear communication, and demonstration of competence—enabled smoother collaboration.

Interestingly, clients often described trust as a decisive factor in whether they deferred to professional recommendations or insisted on their own preferences. When trust was strong, clients allowed designers greater creative freedom. This dynamic aligns with literature on professional-client relationships, where trust acts as a moderating factor in decision-making (Dainty et al., 2006).

5.5 Sustainability and Value-Based Decisions

Finally, sustainability emerged as an increasingly influential dimension of decision-making. Both clients and designers emphasised the importance of environmental responsibility and long-term value creation. While some clients initially prioritised cost or aesthetics, they often shifted their

preferences when designers highlighted sustainable options with economic benefits, such as energy-efficient systems or durable materials.

This theme reflects the growing integration of sustainable design principles into interior architecture (Kang & Guerin, 2009). It also demonstrates how decision-making is not static but evolves through exposure to new information and professional guidance.

5.6 Summary of Findings

In summary, the findings suggest that client-centred decision-making in interior architecture is multifaceted, iterative, and co-constructed. It involves balancing emotional drivers with rational constraints, navigating cognitive limitations, building trust, and increasingly embedding sustainability considerations. These insights provide a foundation for the discussion of how decision-making models can be optimised for client-centred design practices.

6. Discussion

The findings of this study offer critical insights into the dynamics of client-centred decision-making in interior architecture. This section discusses the implications of the results in light of existing literature and theoretical frameworks, highlighting how collaborative, emotional, cognitive, and sustainability dimensions shape decision-making processes. It also examines the practical and theoretical contributions of the study.

6.1 Reframing Decision-Making as a Collaborative Process

The findings strongly reinforce the participatory design paradigm, which views clients as active partners rather than passive recipients of design solutions (Schuler & Namioka, 1993; Luck, 2018). The evidence of collaborative negotiation underscores the necessity of rethinking traditional hierarchical models of decision-making. Instead, decision-making should be framed as iterative co-creation, where both designers and clients contribute expertise—clients bring subjective knowledge of their needs and experiences, while designers provide technical and creative expertise.

This reconceptualisation challenges older models of decision-making, such as the purely rational model, by showing that design outcomes emerge from dialogue and compromise rather than linear optimisation.

6.2 The Central Role of Emotion and Experience

The prominence of emotional and experiential drivers among clients supports existing research in environmental psychology, which highlights the affective dimensions of spatial design (Gifford, 2014; Mehrabian & Russell, 1974). Emotions act as both constraints and enablers in decision-making: while they may complicate rational evaluation, they also anchor design choices in personal meaning.

For interior architects, this suggests that effective practice requires empathic engagement with clients, actively eliciting and interpreting emotional cues. Tools such

as storytelling, experiential prototypes, and sensory simulations can bridge the gap between client emotions and design solutions. This approach aligns with recent shifts toward experience-centred design (McCarthy & Wright, 2004).

6.3 Cognitive Limitations and the Role of Visualisation

The findings also provide empirical support for Simon's (1957) theory of bounded rationality in design contexts. Clients' struggles with abstraction and foresight highlight the cognitive challenges inherent in complex decision-making. This reinforces the importance of visualisation tools as mediators between clients and design concepts.

The implication is that designers should not only present options but also scaffold decision-making by simplifying information and contextualising alternatives. Emerging technologies such as virtual reality (VR) and augmented reality (AR) hold potential to further bridge cognitive gaps by enabling immersive exploration of proposed spaces (Heydarian et al., 2015).

6.4 Trust as a Mediating Factor

The centrality of trust in decision-making dynamics underscores the importance of relational, not just procedural, aspects of design practice. Trust enables smoother negotiation, reduces client anxiety, and increases willingness to embrace professional recommendations. This aligns with organisational behaviour literature, where trust is seen as a cornerstone of effective collaboration (Mayer et al., 1995).

For interior architects, cultivating trust involves transparency, consistent communication, and demonstrating competence. Ethical practices and respect for client input are particularly critical, as breaches of trust can undermine the entire design process. This finding suggests that decision-making models in interior architecture should integrate relational variables alongside cognitive and emotional ones.

6.5 Sustainability as a Shaping Force

The emergence of sustainability as a key driver indicates a paradigm shift in client-centred decision-making. Whereas earlier studies suggested clients prioritised cost and aesthetics (Kang & Guerin, 2009), the current findings reveal a growing willingness to adopt sustainable solutions, particularly when guided by professional advocacy. This reflects broader societal trends toward sustainable consumer behaviour (Peattie & Crane, 2005).

For practice, this highlights the importance of positioning sustainability not as an optional add-on but as an integral component of decision-making frameworks. By framing sustainability in terms of both environmental ethics and long-term economic value, designers can foster client alignment with sustainable practices.

6.6 Theoretical Implications

Synthesising the findings within the study's theoretical framework, three key implications emerge:

- Integration of Participatory Design and Bounded Rationality: Decision-making is collaborative but bounded by cognitive constraints. The framework must therefore account for both shared authorship and structured guidance from designers.
- Emotion as a Decision-Making Dimension: Theories of rational and bounded rationality models need to be complemented by insights from environmental psychology to capture the affective aspects of design choices.
- Relational and Value-Based Extensions: Trust and sustainability expand existing frameworks by introducing relational and ethical dimensions that go beyond traditional cognitive-emotional dichotomies.

These insights contribute to a more holistic model of client-centred decision-making, which acknowledges its multi-dimensional and iterative nature.

6.7 Practical Implications

From a practical perspective, the study offers several implications for interior architecture practice:

- Engagement strategies: Designers should employ participatory techniques such as workshops, co-creation sessions, and continuous feedback loops to ensure client inclusion.
- Visualisation tools: Enhanced tools, including VR, AR, and sensory simulations, can mitigate cognitive

limitations and improve client decision-making capacity.

- Trust-building practices: Transparent communication, ethical conduct, and consistent client engagement are essential for cultivating trust.
- Sustainability advocacy: Designers should proactively introduce sustainable options and articulate their long-term benefits to clients.

6.8 Limitations and Future

Research

While the study provides valuable insights, its qualitative scope limits generalizability. The cultural and professional contexts of the participants may influence findings, suggesting the need for comparative studies across diverse contexts. Future research could also explore technological mediation (e.g., AI-driven design assistance) in decision-making or adopt longitudinal approaches to examine how client satisfaction evolves.

6.9 Conclusion of Discussion

The discussion highlights that decision-making in client-centred interior architecture is collaborative, emotional, bounded, relational, and value-driven. The findings extend existing theories by integrating cognitive, affective, relational, and sustainability dimensions into a more holistic understanding. This reinforces the need for decision-making models that are flexible, client-inclusive, and ethically attuned to contemporary societal priorities.

7. Conclusion and Recommendations

This study explored decision-making models for client-centred interior architecture solutions, focusing on the dynamics that shape collaboration between designers and clients. Drawing upon environment-behaviour theory, participatory design, and bounded rationality, the research illuminated how decision-making is not a singular act but an iterative, multidimensional process. The findings reveal that client-centred decisions are influenced by five interrelated dimensions: collaborative negotiation, emotional drivers, bounded rationality, trust, and sustainability.

The study concludes that effective decision-making in interior architecture requires balancing rational analysis with subjective experiences. While clients bring emotional, cultural, and experiential insights, designers provide technical expertise and creative vision. Decision-making thrives when both parties engage in genuine dialogue, supported by visualisation tools and transparent communication. Importantly, trust serves as the mediator that enables clients to accept professional recommendations while maintaining ownership of the design process. Sustainability further expands the decision-making framework by embedding ethical and long-term value considerations.

Based on these insights, several recommendations emerge for practice and future research:

- Adopt Participatory Strategies: Interior architects should embed structured participatory methods, such as co-design workshops and iterative feedback sessions, to enhance client involvement and foster shared authorship.
- Leverage Visualisation Tools: Employing advanced technologies like virtual reality, augmented reality, and sensory simulations can help clients overcome bounded rationality and make more informed choices.
- Cultivate Trust: Designers must prioritise transparency, ethical conduct, and consistent communication to establish trust as the foundation for collaborative decision-making.
- Integrate Sustainability Early: Sustainable options should be presented as integral to design proposals, framed in terms of both ecological responsibility and economic benefit.
- Expand Research Horizons: Future studies should investigate cross-cultural variations in client-centred decision-making and examine the role of emerging technologies and artificial intelligence in mediating design choices.

In conclusion, the research highlights that client-centred decision-making is collaborative, emotional, bounded, relational, and value-driven. By embracing this holistic model, interior architects can create spaces that not only meet functional and aesthetic needs but also resonate with

clients' identities, values, and aspirations, ultimately enhancing satisfaction and long-term engagement with the built environment.

References

Ábrahám, S. A., Dolejšová, M., & Stappers, P. J. (2025). Advancing circularity through evidence-based design. *Design Research Society Conference Proceedings*.

Al-Saggaf, A., Alam, M., & Khandoker, A. H. (2020). An Analytical Hierarchy Process-based system to evaluate architectural design alternatives. *Journal of Building Engineering*, 32, 101450. <https://doi.org/10.1016/j.jobe.2020.101450>

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706q063oa>

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage.

Dainty, A. R., Cheng, M. I., & Moore, D. R. (2006). Communication competence and organisational effectiveness in construction projects. *Construction Management and Economics*, 24(8), 795–804. <https://doi.org/10.1080/01446190500435295>

Dane, E., & Pratt, M. G. (2007). Exploring intuition and its role in managerial decision making. *Academy of Management Review*, 32(1), 33–54. <https://doi.org/10.5465/amr.2007.23463682>

Giarlotta, A. (2024). Beyond rational choice: Theoretical perspectives on bounded rationality. *Philosophical Studies*, 181(5), 1561–1579. <https://doi.org/10.1007/s11098-024-01963-3>

Gifford, R. (2014). Environmental psychology matters. *Annual Review of Psychology*, 65, 541–579. <https://doi.org/10.1146/annurev-psych-010213-115048>

Han, Z., Yu, H., & Li, B. (2023). An interactive multi-criteria decision-making method for building performance optimisation. *Energy and Buildings*, 293, 113250. <https://doi.org/10.1016/j.enbuild.2023.113250>

Heydarian, A., Carneiro, J. P., Gerber, D., & Becerik-Gerber, B. (2015). Immersive virtual environments versus physical built environments: A benchmarking study for building design and user-built environment explorations. *Automation in Construction*, 54, 116–126. <https://doi.org/10.1016/j.autcon.2015.03.020>

Interaction Design Foundation. (n.d.). What is user-centred design (UCD)? Retrieved from <https://www.interaction-design.org/literature/topics/user-centered-design>

Kang, M., & Guerin, D. A. (2009). The state of environmentally sustainable interior design practice. *American Journal of Environmental Sciences*, 5(2), 179–186. <https://doi.org/10.3844/ajessp.2009.179.186>

Kahneman, D. (2011). Thinking, fast and slow. Farrar, Straus and Giroux.

Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. Sage.

Luck, R. (2018). Participatory design in architectural practice: Changing practices in future making in uncertain times. *Design Studies*, 59, 139–157. <https://doi.org/10.1016/j.destud.2018.10.003>

Mastrangelo, A. B., & Gittler, L. (2025). Decision making and decision support during the design of healthcare facilities. *Buildings*, 15(14), 2474. <https://doi.org/10.3390/buildings15142474>

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organisational trust. *Academy of Management Review*, 20(3), 709–734. <https://doi.org/10.5465/amr.1995.9508080335>

McCarthy, J., & Wright, P. (2004). Technology as experience. MIT Press.

Mehrabian, A., & Russell, J. A. (1974). An approach to environmental psychology. MIT Press.

Patton, M. Q. (2015). Qualitative research & evaluation methods (4th ed.). Sage.

Peattie, K., & Crane, A. (2005). Green marketing: Legend, myth, farce, or prophecy? *Qualitative Market Research*, 8(4), 357–370. <https://doi.org/10.1108/13522750510619733>

Pilosof, N. P., Kraybill, M., & Kopec, D. (2021). Evidence-based design for interior architecture education. *Journal of Interior Design*, 46(4), 1–18. <https://doi.org/10.1111/joid.12220>

Schuler, D., & Namioka, A. (1993). Participatory design: Principles and practices. CRC Press.

Simon, H. A. (1955). A behavioural model of rational choice. *Quarterly Journal of Economics*, 69(1), 99–118. <https://doi.org/10.2307/1884852>

Simon, H. A. (1957). Administrative behaviour. Free Press.

Tu, H. (2024). A group decision-making model for architectural programming. *Engineering, Construction and Architectural Management*, 31(3), 1245–1261. <https://doi.org/10.1108/ECAM-06-2022-0609>

Zhang, Y., Liu, X., & Zhao, J. (2023). Integrated framework of knowledge-based decision support to mitigate design decision problems. *Expert Systems with Applications*, 233, 120905. <https://doi.org/10.1016/j.eswa.2023.120905>