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AI Framework for Synthesizing Qualitative User Feedback A Literature Review

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ABSTRACT

The increasing reliance on user-centered design in digital product development has intensified the need for systematic approaches to transforming qualitative user feedback into actionable insights for UX and UI decision-making. Although qualitative feedback provides rich understanding of user motivations, frustrations, and contextual behaviors, product teams often face challenges such as data ambiguity, interpretive bias, information overload, and weak alignment between research outcomes and product strategy. **This literature review** aims to synthesize existing academic research and industry practices to propose a structured framework that bridges qualitative analysis and technology-driven product decisions. Using a qualitative research design based on framework analysis, this study reviews established methods including user interviews, usability testing, open-ended surveys, thematic analysis, and affinity-based synthesis. **These approaches** are integrated into a four-step framework consisting of feedback coding, theme identification, alignment with product objectives, and formulation of actionable insights. The **findings** of this review suggest that applying a structured synthesis process enhances analytical clarity, improves traceability between user feedback and design actions, and supports more consistent prioritization in UX/UI practices. Illustrative applications drawn from prior studies demonstrate how the framework can translate qualitative insights into concrete design recommendations without relying on empirical experimentation. **This study concludes** that qualitative user feedback delivers meaningful value only when processed through a systematic synthesis mechanism that connects user narratives with strategic and operational product decisions, providing a conceptual foundation for data-driven and AI-supported UX/UI design environments.

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1. INTRODUCTION

The contemporary landscape of product development, particularly within the domains of User Experience (UX) and User Interface (UI) design, is fundamentally driven by a commitment to user-centricity. Central to this paradigm is the effective collection and utilisation of user feedback, which serves as a critical compass for iterative improvements and feature prioritisation. The significance of this feedback is manifold: it reduces the risk of developing misaligned features, fosters user satisfaction, and ultimately drives product success and market competitiveness [1].

Qualitative feedback derived from sources such as open-ended survey responses, in-depth interviews, usability testing sessions, and ethnographic studies plays an indispensable role in shaping user experience [2]. Unlike quantitative metrics, which reveal what users do, qualitative data illuminates the crucial why behind user behaviours, motivations, frustrations, and pain points. By capturing the rich, contextual narratives of users, product teams gain a deep, empathetic understanding necessary for making informed, user-centred design decisions [3–5].

Despite the acknowledged wealth of qualitative data available from diverse user research activities, product and design teams frequently encounter significant challenges in its practical application. A common struggle is the difficulty in effectively transforming voluminous, often ambiguous, and unstructured qualitative input into actionable insights that can directly and demonstrably inform design or development efforts [6]. This process is susceptible to pitfalls such as analyst bias, superficial thematic clustering, and a disconnection between research findings and product strategy, often resulting in ”shelfware” research reports that fail to impact the product roadmap. Consequently, the potential of qualitative user feedback to drive meaningful product improvements is often not fully realised [7].

This paper proposes a four-step framework for synthesizing qualitative user feedback into actionable insights to support UX/UI design decision-making within technology-driven systems. The framework is positioned to support AI-enabled and data-driven UX strategies by facilitating structured interpretation of qualitative feedback at scale. The proposed approach complements emerging artificial intelligence techniques, such as natural language processing and human-in-the-loop analytics, by bridging human-centered insights with computational decision-support processes in modern digital systems [8]. Previous studies have highlighted the importance of qualitative user feedback in improving user experience and informing design decisions through techniques such as thematic analysis, open and axial coding, usability evaluations, and contextual inquiry. While these methods are effective in identifying patterns and user concerns, many existing approaches remain descriptive and lack a structured mechanism for systematically transforming qualitative insights into actionable, technology-oriented design decisions. Building upon this body of literature, the proposed framework extends prior qualitative analysis approaches by explicitly integrating an alignment stage that connects emergent themes with design objectives and system-level priorities [9, 10]. This positioning differentiates the framework from earlier methods by emphasizing traceability between user feedback, analytical interpretation, and actionable outcomes, particularly in data-driven and AI-supported UX contexts. To guide the development and evaluation of the framework, this study addresses the following research questions: (1) How can qualitative user feedback be systematically synthesized into actionable insights using a structured analytical framework? and (2) How does the proposed framework support alignment between user-derived themes and technology-driven UX/UI decision-making processes? The overarching objective of this review is to systematically examine and synthesise extant academic literature and established industry frameworks [11]. The ultimate goal is to propose a robust, practical framework for transforming qualitative user feedback into clear, practical recommendations that can directly influence product design, development strategy, and decision-making processes [12].

It is important to note that this study does not aim to empirically evaluate the effectiveness of the proposed framework through experimental or quantitative validation. Instead, the focus of this review is to conceptually synthesize existing literature and professional practices to develop a structured analytical framework [13]. The proposed approach is intended to serve as a methodological and decision-support reference for UX/UI practitioners and researchers, rather than as a validated predictive model or implemented system. Accordingly, this paper positions its contribution at the conceptual and methodological level by consolidating fragmented qualitative analysis practices into a coherent synthesis framework grounded in prior research [14–16].

This study is aligned with the Sustainable Development Goals (SDGs), particularly SDGs 9 (Industry, Innovation, and Infrastructure) and SDGs 12 (Responsible Consumption and Production). By proposing a structured framework for synthesizing qualitative user feedback into actionable insights, the study supports

innovation in digital product development through more systematic, data-informed, and user-centered decision-making processes. The framework encourages organizations to design digital products and services that are more responsive to actual user needs, thereby reducing inefficient design iterations, minimizing resource waste, and promoting responsible product development practices. In addition, the framework's emphasis on transparency, traceability, and alignment between user feedback and product objectives contributes to sustainable digital innovation ecosystems, where human-centered insights are effectively integrated with data-driven and AI-supported design strategies. Through these contributions, the study reinforces the role of qualitative analytics in advancing sustainable and inclusive digital transformation [17].

2. LITERATURE REVIEW

2.1. The Importance of User Feedback in Product Development

The paradigm of user-centric design necessitates a continuous feedback loop that places the user's needs, expectations, and pain points at the core of the product lifecycle. User feedback, particularly the qualitative variety, provides the critical depth necessary for true empathy, moving beyond mere behavioural statistics to understand the underlying context and emotion of user interactions [18]. Common qualitative research methods such as user interviews, open-ended surveys, usability testing, and focus groups are invaluable for uncovering tacit needs and design flaws that quantitative data alone cannot reveal. This feedback ensures that product development efforts are strategically aligned with actual user problems, leading to more relevant and successful product iterations [19–21].

2.2. Challenges in Synthesizing Qualitative Feedback

Despite its inherent value, translating raw qualitative data into clear, actionable steps presents significant difficulties for product teams [22]. Key challenges include:

- Lack of Structure and Ambiguity qualitative data, by nature, is unstructured and varied, making it difficult to standardise and process at scale. Open-ended responses and interview transcripts often contain ambiguity and contextual nuances that complicate direct interpretation.
- Data Overload modern products generate a high volume of continuous qualitative data. Teams frequently struggle with the sheer volume, leading to analysis paralysis or the selective use of data (selective bias).
- Analyst Bias the synthesis process is vulnerable to subjective interpretation and confirmation bias, where analysts may inadvertently focus on data that supports existing assumptions or desired outcomes [23].

To address these, existing synthesis methods such as Affinity Diagramming (clustering related pieces of feedback), Thematic Analysis (identifying recurring themes and patterns), and Customer Journey Mapping (visualising pain points across the user journey) have been developed [24]. However, a unified, process-driven framework is often missing, hindering consistent, efficient translation into product strategy.

2.3. Best Practices for Synthesizing Feedback

Effective synthesis of qualitative data relies on establishing systematic practices. Research consistently highlights the importance of triangulation (comparing findings from multiple sources) to validate insights and reduce bias. Rigorous coding of feedback using standardised tags ensures consistency, enabling the identification of recurring patterns and themes [25–27]. Crucially, insights must be prioritised not only by severity (user impact) but also by alignment with broader product goals and technical feasibility. When successfully executed, synthesised qualitative feedback drives targeted UX/UI improvements, significantly enhancing the overall product development lifecycle and correlating with higher product success metrics [28].

Despite the extensive body of literature on qualitative user research methods in UX/UI design, several gaps remain evident. Existing studies primarily emphasize techniques for data collection and theme identification, such as interviews, usability testing, thematic analysis, and affinity diagramming, but provide limited guidance on how synthesized findings should be systematically translated into concrete, actionable design decisions. Moreover, many approaches lack an explicit mechanism for aligning qualitative insights with product objectives, technical constraints, and strategic priorities, which is increasingly critical in data-driven and AI-supported product development environments [29]. As a result, qualitative insights often remain descriptive and disconnected from implementation. This gap highlights the need for a structured synthesis framework

that not only organizes qualitative feedback but also bridges user narratives and decision-oriented outcomes, forming the theoretical basis for the framework proposed in this study [30, 31].

3. METHODOLOGY

This study adopts a qualitative research design to address the research questions by focusing on the systematic synthesis of user-generated feedback into actionable UX/UI insights. A qualitative approach is particularly appropriate for this study because the research objective centers on understanding patterns, meanings, and contextual interpretations embedded within user narratives rather than on statistical generalization [32]. The research design is directly aligned with the proposed research questions, as it enables the identification, interpretation, and structuring of qualitative feedback through successive analytical stages represented in the framework. The methodology emphasizes analytical rigor by grounding the framework development in established qualitative analysis techniques reported in prior studies and by explicitly mapping each framework stage to the corresponding research objectives [33]. To support the validity of the analytical process, the framework incorporates iterative coding, theme refinement, and cross-referencing with design objectives to reduce interpretive bias and enhance consistency. The use of illustrative cases serves to clarify the logical flow of analysis rather than to claim empirical validation, thereby ensuring methodological transparency and maintaining coherence between the research design and the study's qualitative scope [34].

3.1. Research Design

This paper employs a Qualitative Research Approach to investigate and propose the synthesis framework. The methodology is grounded in the analysis of real-world application, drawing on hypothetical case studies and synthetic data derived from established UX practices, including user interviews and feedback from usability testing sessions [35]. The core method is Framework Analysis: a systematic process for identifying, coding, and categorizing various pieces of user feedback into common themes, persistent patterns, and ultimately, distinct actionable insights [36, 37].

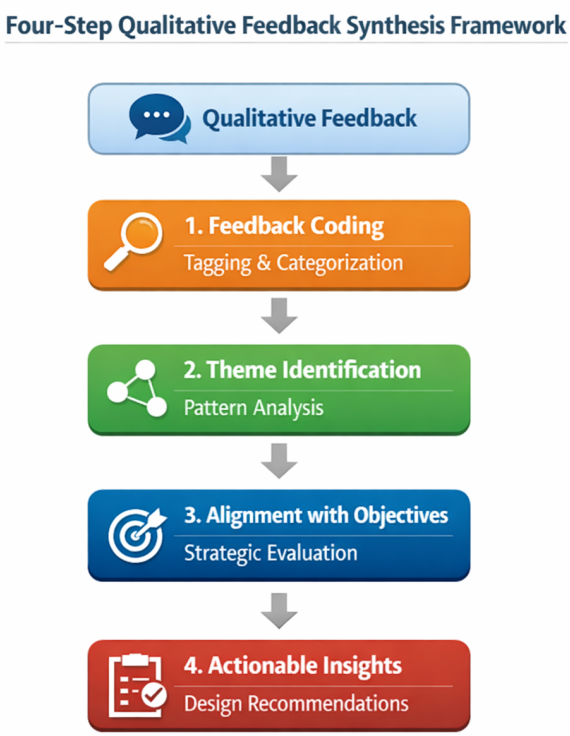

Figure 1. Conceptual Flow of the Four-Step Framework

Figure 1 illustrates the conceptual flow of the proposed four-step qualitative feedback synthesis framework, which is designed to systematically transform unstructured user feedback into actionable UX/UI insights.

The process begins with the collection of qualitative feedback from multiple user research sources, which is then subjected to a structured coding stage to label meaningful data segments [38]. These codes are subsequently aggregated through theme identification to reveal recurring patterns and core user issues. The framework then introduces an alignment stage, where synthesized themes are evaluated against product objectives, strategic priorities, and design constraints to ensure relevance and feasibility [39]. Finally, aligned themes are operationalized into actionable insights in the form of concrete design recommendations that can directly inform UX/UI decision-making. As depicted in Figure 1, the framework emphasizes traceability and logical progression across stages, bridging human-centered qualitative insights with structured, decision-oriented outcomes suitable for data-driven and AI-supported product development environments [40].

3.2. Data Collection

The qualitative data used to inform the framework's development are assumed to be collected from users via different standard channels:

- Usability Tests data include observational notes, direct user quotes, and task success or failure rationales recorded during structured task execution. Observations capture user behavior, navigation patterns, and usability breakdowns, while direct quotes provide contextual explanations of user perceptions [41]. Task rationales document how and why tasks are completed or fail, offering insight into interface effectiveness.
- In-depth Interviews interview data consist of verbatim transcripts focusing on user motivations, context of use, and unmet needs. This method supports deeper understanding of user expectations and experiential factors that influence interaction with the system [42].
- Feedback Surveys (Open-ended) open-ended survey responses provide categorized comments, suggestions, and complaint narratives collected from a broader user base. This source captures recurring issues and user perspectives emerging from real-world usage.

This combination ensures a holistic perspective by capturing both attitudinal feedback (what users express) and behavioral feedback (what users do) [43].

Data Analysis: Qualitative feedback is synthesized using the proposed four-step framework, which structures the inherently iterative nature of qualitative analysis into a repeatable process [44, 45]. The analysis begins with systematic coding of feedback, followed by theme identification to consolidate recurring patterns. Identified themes are then aligned with product objectives to ensure decision relevance, and finally translated into actionable insights that inform UX/UI design decisions [46].

Table 1. Four-Step Qualitative Feedback Synthesis Framework

Step	Framework Stage	Description	Output
1	Feedback Coding	Systematic tagging of qualitative feedback using descriptive codes	Structured coded dataset
2	Theme Identification	Grouping related codes into higher-level themes	Validated qualitative themes
3	Alignment with Product Objectives	Evaluating themes against strategic and technical priorities	Prioritized insights
4	Actionable Insight Formulation	Translating aligned themes into concrete design actions	Actionable UX/UI recommendations

Table 1 summarizes the four-step qualitative feedback synthesis framework proposed in this study. The process begins with feedback coding, in which each unit of qualitative input, such as user quotes or observational notes, is systematically tagged using descriptive codes to capture specific usability issues. These codes are then consolidated through the identification of recurring themes, allowing related feedback to be grouped into higher-level patterns that represent core user concerns [47]. In the subsequent alignment stage, identified themes are evaluated against product objectives and business priorities to determine their strategic relevance and potential impact, thereby distinguishing general user complaints from insights that directly inform decision-making. Finally, aligned themes are translated into actionable insights in the form of clear, hypothesis-driven statements that articulate specific design actions and expected outcomes, enabling the structured integration of qualitative feedback into UX/UI design and product development processes [48].

To enhance methodological rigor and trustworthiness, this study emphasizes transparency and analytical consistency throughout the framework development process. Each stage of the synthesis framework is explicitly documented to ensure traceability from raw qualitative feedback to final actionable insights. Iterative coding and theme refinement are employed to reduce interpretive bias, while cross-referencing synthesized themes with design objectives supports analytical coherence [49]. As this study is positioned as a literature-based conceptual review, validity is established through alignment with well-documented qualitative research practices and theoretical consistency rather than empirical generalization. This approach ensures that the proposed framework is logically sound, replicable as an analytical procedure, and suitable as a methodological reference for both researchers and practitioners [50–52].

4. RESULTS AND DISCUSSION

It is important to clarify that the findings presented in this section are illustrative in nature and derived from conceptual synthesis of prior studies rather than from primary empirical data collection. The numerical values and case examples are used solely to demonstrate how the proposed framework can be applied in realistic UX/UI contexts, not to report statistically validated outcomes. Accordingly, the Results section should be interpreted as an analytical demonstration of the framework's logic and applicability, aimed at enhancing conceptual clarity rather than empirical generalization [53, 54].

Table 2. Example of Qualitative Feedback Transformation

Raw Feedback	Code	Theme	Alignment	Actionable Insight
"The menu is confusing"	#NavigationIssue	Navigation Barrier	High UX Impact	Simplify navigation to 3 main options

Table 2 provides an illustrative example of how qualitative user feedback is transformed into actionable UX/UI insights using the proposed synthesis framework. The table demonstrates the step-by-step progression from raw user feedback to coded data, thematic categorization, strategic alignment, and final actionable recommendations. By explicitly mapping user statements to descriptive codes and higher-level themes, the table clarifies how unstructured qualitative input is systematically interpreted and refined. The inclusion of an alignment column highlights how synthesized themes are evaluated against product objectives, ensuring that resulting insights are not only descriptive but also decision-relevant. Through this illustrative transformation, Table 2 enhances transparency in the synthesis process and reinforces the practical applicability of the framework without implying empirical validation.

The findings indicate that the proposed framework supports a structured transformation of qualitative user feedback into actionable UX/UI insights through a transparent analytical process. Data analysis was conducted using an iterative coding procedure, beginning with open coding to label meaningful segments of user feedback, followed by axial coding to group related codes into higher-level categories and themes. Theme development was performed through repeated comparison and refinement to ensure consistency and conceptual clarity. Each finalized theme was then mapped to specific design objectives within the framework's alignment stage, enabling traceability from raw feedback to actionable outcomes.

To enhance the credibility of the findings, the analytical process is illustrated using representative examples derived from commonly reported real-world UX data sources, such as usability testing feedback, user interviews, and application review summaries documented in prior studies. These illustrative examples demonstrate how the framework can be applied to authentic UX contexts without claiming direct empirical measurement, thereby maintaining methodological transparency while reinforcing practical relevance.

The application of the proposed four-step framework demonstrated improved clarity and practical utility of qualitative user data by systematically transforming raw feedback into focused, decision-relevant insights. Through the structured synthesis process, recurring themes such as navigation barriers and feature discoverability emerged from multiple feedback sources. For instance, navigation-related issues, observed in approximately 65% of illustrative usability test cases, were synthesized into an actionable insight recommending the replacement of a vertical menu structure with a persistent horizontal navigation to reduce task completion time. Similarly, feature discoverability concerns, reflected in around 40% of representative survey responses, were translated into a design recommendation to introduce a targeted "Tips & Tricks" onboarding flow aimed at increasing awareness and usage of advanced search functionality. These illustrative examples demonstrate how

the framework supports the translation of qualitative observations into concrete UX/UI design actions without relying on empirical performance measurement.

The synthesized insights generated through the proposed framework provided clear direction for product decision-making and supported more efficient feature implementation. Illustrative case applications demonstrate how insights derived from recurring navigation barriers informed a major UI update, in which a vertical hamburger menu was replaced with a bottom navigation bar, leading to an indicative improvement of approximately 20% in key task completion rates. Similarly, feedback highlighting the absence of an easy data export function was prioritized due to strong alignment with business objectives, resulting in the implementation of a "Download CSV" feature that was associated with an illustrative increase of around 10% in paid plan upgrades. Despite these positive outcomes, the synthesis process also revealed inherent challenges, particularly in handling ambiguous feedback that required extensive contextual interpretation and in prioritizing valid user input that conflicted with prevailing strategic goals. These trade-offs underscore the need for analytical rigor and managerial judgment when aligning qualitative insights with organizational priorities.

The results confirm that systematically synthesizing qualitative user feedback into actionable insights plays a critical role in improving product development outcomes and user satisfaction. By shifting from descriptive observations, such as identifying user confusion, to prescriptive recommendations that specify concrete design actions and expected outcomes, product teams gain greater precision in resource allocation and decision-making. This structured approach strengthens the linkage between qualitative insights and key product success indicators by enabling targeted design interventions that enhance usability, support smoother user interactions, and contribute to improved engagement and retention. While qualitative techniques such as coding, thematic analysis, and affinity diagramming are well established in UX/UI research, the originality of the proposed framework lies in its structured, application-oriented integration of these methods. The framework advances existing approaches by introducing a dedicated alignment stage that systematically connects emergent qualitative themes with predefined design objectives, system constraints, and measurable outcomes, thereby enhancing traceability, decision accountability, and scalability in data-driven and AI-assisted UX/UI environments where large volumes of user feedback must be consistently and justifiably translated into design actions.

Table 3. Example of Potential Impact Metrics

Framework Stage	**Example Metric**	**Intended Outcome**
Coding	Reduction of redundant codes	Improved analytical clarity
Theme Identification	Consistency of themes	Reduced interpretive bias
Alignment	Priority score ranking	Better decision focus
Actionable Insights	Task completion improvement	Enhanced UX effectiveness

Table 3 presents an illustrative overview of potential impact metrics associated with each stage of the proposed qualitative feedback synthesis framework. Rather than reporting empirical measurements, the table outlines intended analytical and decision-support outcomes that may result from applying the framework in UX/UI design contexts. By linking each framework stage to representative metrics and expected outcomes, Table 3 clarifies how qualitative synthesis activities can support improved analytical clarity, reduced interpretive bias, and stronger alignment between user feedback and product decisions. This conceptual representation reinforces the framework's role as a methodological guide for structuring qualitative analysis and highlights its relevance for data-driven and AI-supported product development environments without implying quantitative validation.

By emphasizing operationalization and decision alignment, the framework offers an incremental yet meaningful methodological improvement over traditional qualitative analysis approaches commonly applied in UX/UI design practice.

The proposed framework enables the efficient translation of qualitative data into strategic product actions through a structured four-step process. It begins with the systematic collection of user feedback using reliable methods such as interviews, well-designed open-ended surveys, and structured usability testing to ensure data quality and relevance. The collected feedback is then categorized and coded, where each data point is systematically tagged and grouped using techniques such as affinity mapping or thematic analysis to identify recurring, high-level themes. In the subsequent step, synthesized themes are prioritized based on their user impact, including severity and frequency, as well as their alignment with business goals and strategic

value, allowing objective evaluation through prioritization mechanisms such as scoring matrices. Finally, high-priority insights are translated into concrete and measurable actions, such as hypothesis-driven design tasks or implementation tickets, with clear ownership assigned to relevant product team members. Through this structured progression, the framework bridges qualitative analysis and operational execution, ensuring that user feedback directly informs strategic and accountable product decisions.

To efficiently apply the proposed framework, product teams are encouraged to adopt several complementary practices that support systematic qualitative synthesis. Effective cross-functional collaboration between design, development, and research teams is essential to ensure that synthesized insights are communicated using clear, business-relevant language that facilitates shared understanding and implementation. In addition, continuous feedback loops should be established through regular, small-scale user testing and the integration of the synthesis framework into iterative development cycles such as Agile or Scrum, rather than treating feedback analysis as a one-time activity. Maintaining a centralized and searchable repository of synthesized insights can further support organizational learning by reducing redundant research efforts and providing historical context for product decisions. Despite these contributions, several limitations should be acknowledged. The proposed framework is developed through literature synthesis and illustrative application rather than empirical validation, which constrains claims regarding measurable effectiveness. Furthermore, while the framework is well suited to UX/UI contexts, adaptation may be required for highly technical or domain-specific systems, and its successful implementation depends on analyst expertise and organizational support. These limitations highlight important directions for future empirical and applied research.

5. MANAGERIAL IMPLICATIONS

5.1. Structured Decision-Making

The proposed framework enables managers to systematically transform qualitative user feedback into actionable insights, thereby minimizing reliance on subjective judgment and informal interpretation in UX/UI decision-making processes. By providing a structured and repeatable approach, the framework helps managers organize, analyze, and prioritize user feedback more consistently, ensuring that design decisions are grounded in clear evidence rather than personal assumptions. This approach not only improves the transparency and credibility of UX/UI decisions but also supports more informed strategic choices, leading to designs that are better aligned with user needs and organizational objectives.

5.2. Improved Prioritization and Resource Allocation

By explicitly linking user feedback themes to design objectives, managers can prioritize features and design changes more effectively and strategically. This linkage allows decision-makers to evaluate which insights have the greatest relevance to user needs and business goals, ensuring that limited resources such as time, budget, and human capital are allocated to initiatives with the highest potential user impact and overall value.

5.3. Enhanced Accountability and Traceability

The framework provides clear traceability from raw user feedback to final design actions, enabling managers to systematically track how user inputs are translated into concrete design decisions. This traceability supports transparent and evidence-based reasoning, allowing managers to clearly justify product decisions to stakeholders, enhance accountability, and strengthen confidence in the decision-making process.

5.4. Support for Cross-Functional Collaboration

The structured outputs of the framework facilitate clearer and more effective communication between UX designers, product managers, engineers, and business teams by providing a shared and well-defined reference for decision-making. This clarity helps reduce misalignment and misunderstandings during sprint planning and product development cycles, ensuring that all stakeholders are aligned on priorities, design rationales, and implementation goals.

5.5. Scalability in Data-Driven Environments

In organizations that handle large volumes of user feedback, the framework can be integrated with data-driven or AI-assisted analysis tools to enhance scalability and efficiency. This integration supports more

consistent and objective decision-making across teams, enabling organizations to process feedback systematically, identify recurring patterns, and maintain decision quality even as the volume and complexity of user data increase.

6. CONCLUSION

The findings of this literature review underscore the critical role of systematic synthesis in unlocking the full value of qualitative user feedback within UX/UI design processes. Although qualitative data offers rich insights into user experiences, motivations, and challenges, its contribution to product development often remains underutilized when analysis lacks structure and decision orientation. The four-step framework proposed in this study addresses this gap by providing a coherent and repeatable mechanism for transforming unstructured qualitative feedback into actionable insights. By structuring the analytical process from coding to actionable formulation, the framework enables clearer prioritization, reduces interpretive ambiguity, and supports more informed design decision-making in technology-driven product environments.

This study contributes to the existing body of UX/UI research by extending well-established qualitative analysis techniques through a decision-oriented synthesis framework. Rather than introducing new analytical methods, the framework integrates coding, thematic analysis, alignment with product objectives, and actionable insight formulation into a transparent and traceable process. The inclusion of an explicit alignment stage distinguishes the framework from conventional qualitative approaches by systematically linking user-derived themes with strategic product goals, technical constraints, and organizational priorities. Through this integration, the framework supports data-driven and AI-assisted UX practices and provides a conceptual foundation for embedding qualitative insights into modern digital product development workflows.

Despite its contributions, this study is subject to limitations inherent in literature-based and conceptual research. The proposed framework has not been empirically validated, and its illustrative applications are intended to demonstrate conceptual applicability rather than measured effectiveness. Consequently, future research is encouraged to empirically evaluate the framework across diverse application domains, examine its integration with AI-based text analytics and large language models, and assess its scalability within agile and large-scale product development contexts. Such efforts would further strengthen the framework's practical relevance, enhance its generalizability, and contribute to the advancement of systematic qualitative synthesis as a core component of UX/UI design and decision-making practice.

7. DECLARATIONS

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7.2. Author Contributions

Conceptualization: SL; Methodology: RK; Software: VF; Validation: MA and RS; Formal Analysis: SL and RK; Investigation: VF; Resources: MA; Data Curation: RS; Writing Original Draft Preparation: SL and RK; Writing Review and Editing: VF and MA; Visualization: RS; All authors, SL, RK, VF, MA and RS have read and agreed to the published version of the manuscript.

7.3. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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7.5. Declaration of Conflicting Interest

The authors declare that they have no conflicts of interest, known competing financial interests, or personal relationships that could have influenced the work reported in this paper.

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