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Evaluation Model of Non-Monetary Compensation in Management Accounting Using a Qualitative Approach

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Abstract

The aim of this study was to present a model for evaluating the value of non-monetary compensation in Management accounting using a qualitative approach based on the Grounded theory method. The data collection tool was semi-structured interviews with experts. To this end, in the qualitative phase during 2022, using a purposive (snowball) sampling approach, in-depth interviews were conducted with 13 experts who were knowledgeable and experienced in management accounting until data saturation was reached. The collected data were analyzed using a coding method with the aid of MAXQDA software. Based on the proposed model, the findings showed that regarding causal conditions, most experts in the field of Behavioral management accounting believed that the most influential factors affecting non-monetary compensation in behavioral management accounting were components such as phases of psychological–social motivation, including social norms and priorities, Cognitive psychology, and Motivational psychology. The core category of this study was non-monetary compensation in management accounting at the individual, group, and environmental levels. Two main categories—Agile management and the effects of management accounting techniques—constituted the contextual conditions. The intervening conditions consisted of two main categories: behavioral and social skills, and foundational concepts of behavioral management accounting. The first category of intervening conditions, behavioral and social skills, included the subcategories of leadership skills, teamwork, accountability, goal-setting ability, and networking skills. The category of foundational concepts of behavioral management accounting included the budgeting process, performance management, and information and decision-making. The only main strategic category was the principles of behavioral management accounting, which included five subcategories: stewardship, trust, value, relevance, and degree of influence.

Keywords: *Value of non-monetary compensation; Social psychology theory; Behavioral management accounting.*

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1. Introduction

In contemporary organizational settings, the strategic design and implementation of reward systems have become pivotal in enhancing employee motivation, retention, and overall organizational performance. Rewards, whether financial or non-financial, constitute critical levers through which organizations align individual efforts with broader corporate objectives. As organizations face intensifying global competition, evolving workforce expectations, and complex socio-economic pressures, understanding the nuanced dynamics of reward systems has assumed strategic significance. Scholars emphasize that both tangible and intangible forms of rewards influence employee behavior, attitudes, and performance outcomes in distinct yet interrelated ways [1, 2]. The evaluation of non-monetary compensation, in particular, has gained prominence as organizations increasingly recognize the limitations of relying solely on financial incentives and seek to leverage broader psychological, social, and developmental drivers of employee engagement [3, 4].

The global discourse on human resource management underscores that reward systems are not merely transactional mechanisms for compensating labor but are embedded in complex psychological and social processes that shape organizational cultures and employee identities. Non-financial rewards—such as recognition, professional development opportunities, job autonomy, and supportive work environments—play a critical role in fostering intrinsic motivation and commitment [5, 6]. Empirical evidence shows that while financial rewards satisfy basic economic needs, non-financial rewards often exert more enduring impacts on job satisfaction, innovation, and discretionary effort [7, 8]. These insights resonate with findings from behavioral economics and motivation theories, which argue that overreliance on extrinsic monetary incentives can sometimes crowd out intrinsic motivation, thereby undermining long-term performance [9].

In the public sector context, where budgetary constraints often limit the scope of financial rewards, non-monetary incentives emerge as indispensable tools for enhancing employee performance. Studies in developing economies demonstrate that thoughtfully structured non-financial reward systems can significantly improve efficiency and service delivery outcomes [10, 11]. Similarly, research in educational institutions and universities indicates that recognition, supportive supervision, and opportunities for growth have stronger correlations with academic staff satisfaction and retention than do salary increments [6, 12]. This aligns with broader organizational behavior literature that positions non-financial rewards as key enablers of psychological safety, engagement, and organizational citizenship behaviors [13, 14].

Non-financial compensation has also emerged as a critical determinant of organizational productivity and innovation in commercial sectors. In banking industries, for example, integrating financial and non-financial incentives has been shown to boost both employee performance and organizational productivity by enhancing affective commitment and reducing turnover intentions [7, 15]. Similarly, research on hospitality industries demonstrates that non-financial motivators—such as job enrichment, recognition, and meaningful work—enhance motivation and job effectiveness, especially when coupled with supportive leadership and clear communication [5, 16]. The adoption of digital human resource management systems has further enabled organizations to personalize and streamline the delivery of both financial and non-financial rewards, thereby increasing their perceived fairness and effectiveness [4, 17].

A critical dimension of this discourse involves the integration of behavioral management accounting perspectives into reward evaluation frameworks. Behavioral accounting emphasizes the psychological and social underpinnings of financial decisions and managerial control mechanisms [18, 19]. Within this perspective, non-monetary rewards are viewed not only as cost elements but also as strategic investments that influence decision-making patterns, information-sharing behaviors, and organizational learning. Empirical studies indicate that incorporating behavioral insights into reward system design enhances their alignment with organizational strategy and mitigates the risk of unintended dysfunctional behaviors [20, 21]. Moreover, behavioral accounting frameworks highlight how perceptions of fairness, trust, and reciprocity shape the motivational impact of rewards—suggesting that even well-funded financial incentives can fail if perceived as inequitable or disconnected from organizational values [22, 23].

Trust and fairness are recurring themes in the literature on reward management. When employees perceive reward systems as fair and transparent, they are more likely to exhibit higher levels of commitment, discretionary effort, and organizational citizenship behaviors [14, 24]. Conversely, perceptions of inequity can trigger knowledge hiding, counterproductive work behaviors, and disengagement [21, 25]. This underscores the importance of aligning reward structures with employees' psychological contracts and social norms. Moreover, researchers argue that effective reward systems should strike a balance between standardized rules and individual customization to address diverse employee preferences, thereby enhancing their motivational potency [2, 26].

The evaluation of non-financial rewards requires a multidimensional approach that considers their informational, motivational, and symbolic functions within organizations. Studies have shown that non-financial rewards provide informational cues that shape employees' perceptions of organizational priorities and their role expectations, thereby influencing their cognitive engagement and decision-making behaviors [27, 28]. They also carry symbolic value, signaling appreciation, trust, and inclusion, which fosters social identification and strengthens organizational commitment [13, 29]. Importantly, the impact of such rewards often depends on contextual factors such as organizational culture, leadership styles, and team dynamics, which mediate how employees interpret and respond to reward signals [3, 11].

Recent scholarship has also highlighted the interplay between reward systems and emerging organizational challenges, such as sustainability, digital transformation, and workforce diversity. For instance, studies show that firms adopting green human resource management practices often embed recognition and purpose-driven incentives to encourage pro-environmental behaviors among employees [19, 25]. Similarly, digital transformation initiatives rely heavily on agile, feedback-rich reward systems to drive learning and adaptability in fast-changing environments [4, 8]. These trends underscore that reward systems are evolving from static transactional mechanisms to dynamic relational tools that shape organizational learning and innovation capacity [9, 16].

Despite the growing recognition of the strategic importance of non-monetary compensation, several gaps persist in current practices. Many organizations still prioritize easily quantifiable financial metrics in evaluating rewards, thereby neglecting the qualitative dimensions of employee experience and motivation [1, 20]. This misalignment often leads to suboptimal performance outcomes, high turnover rates, and disengagement. Furthermore, while the literature underscores the complementary roles of financial and non-financial rewards, empirical evidence suggests that their integration in practice remains limited and inconsistent across contexts [10, 30]. There is also a need for context-sensitive evaluation models that account for cultural, economic, and institutional variations affecting how employees perceive and respond to rewards [15, 18].

Therefore, this study seeks to develop a qualitative model for evaluating the value of non-monetary compensation in management accounting

2. Methodology

The present study is a developmental–applied research in terms of purpose and a descriptive survey in terms of data collection method. Descriptive research involves collecting information to answer questions about the current status of the subject under study. It describes and interprets "what is" and focuses on existing conditions or relationships, prevailing beliefs, ongoing processes, observable effects, or emerging trends. Survey research goes beyond being a mere data collection technique and encompasses various methods such as interviews, observations, and content analysis, using field approaches to measure the relevant criteria. In addition, based on the nature of the study, the research is qualitative, and the grounded theory approach was employed as the research method. The main aim of grounded theory research is to explain patterns that constitute the underlying social processes embedded within data. Given the nature of the data and analytical methods, this study was qualitative and dealt with qualitative data. Since the research setting in qualitative studies is crucial for understanding the interaction between environment and individuals, the phenomenon under investigation—namely behavioral management accounting—was examined in its natural environment by studying those who had the greatest experience and engagement with the topic, and by thoroughly and comprehensively exploring their real-world experiences. This was done to propose, through a systemic approach, a model for explaining the phenomenon of non-monetary compensation grounding in behavioral management accounting and its influential components. In terms of data type, the study is qualitative, and in terms of data analysis method, it is also qualitative. Like many studies conducted in the field of the humanities, this study is considered exploratory, as it seeks to uncover the nature and subsequently critique the grounding of non-monetary compensation in behavioral management accounting. The study is developmental in terms of results, as it aims to propose a model for critiquing the grounding of non-monetary compensation in behavioral management accounting. It is descriptive in terms of its purpose, and mixed-method in terms of data type. Accordingly, the research approach of this study is inductive–deductive in terms of data collection logic, as it investigates a phenomenon for which the lack of theoretical integration prompted the researcher to attempt to consolidate the necessary theoretical foundations. In terms of logic of reasoning (mode of inference), it is inductive, because the interviewees presented their perspectives on the outcomes, phenomena, and factors affecting behavioral management accounting based on their experiences. In terms of time dimension, it is cross-sectional, as the interviews were conducted in 2022. To address the shortcomings of previous studies, this article adopted a qualitative approach and grounded theory method to develop a comprehensive model including causal conditions, central conditions, intervening conditions, contextual conditions, examination of the concept of non-monetary compensation in behavioral management accounting, strategies, and its consequences.

The required data were collected using semi-structured interviews. In qualitative research, data collection stops when information regarding all the intended categories becomes saturated, which occurs when the theory or the subject under study is fully developed and no new information emerges. Therefore, in qualitative studies, sample size is considered equivalent to data saturation.

The main method of data collection in this study was individual semi-structured interviews. The interviews were conducted face-to-face in a single session. Each interview was immediately transcribed and subjected to initial coding and analysis. The average duration of the interview sessions was approximately 20 to 30 minutes. The interview questions were open-ended, and responses to one question could lead to new questions. However, to ensure that the interview did not go off track, key questions were asked alongside other emerging questions, and at the end, participants were asked if they had any additional comments or views to share.

In collecting data, the following criteria were considered when selecting participants (accounting and financial experts):

- Participants' proper and acceptable understanding of the concepts of grounding non-monetary compensation in management accounting as well as related psychological and behavioral issues;
- Participants who, based on their career advancement as management accountants, are considered rational accountants and have advanced in organizations by using management accounting techniques;
- Having professional experience in accounting, especially regarding non-monetary compensation in management accounting, both academically and practically;
- Auditing experts as well as managers of regulatory bodies and companies active in the capital market with valuable experience in the accounting field;
- Having supervised, advised, or reviewed at least two qualitative research projects related to the domains of grounding non-monetary compensation in management accounting and psychological issues.

Based on the stated criteria, a list of available experts and specialists in the field of management accounting related to accounting and psychological domains was prepared. Then, through phone calls, face-to-face meetings, and emails, the study's objectives were explained to them, and they were invited to participate in interviews. In total, 13 participants (from among experts and specialists in the field of management accounting) were selected. All interviews were conducted face-to-face with prior arrangements (except for one conducted by phone). Before starting the interviews, the importance of adhering to ethical principles in maintaining the confidentiality of their discussions and viewpoints was explained to participants to ensure their trust and confidence. According to the grounded theory approach by Anselm Strauss and Juliet Corbin (1999), the appropriate sample size ranges from 10 to 25 people, and increasing this number depends on reaching theoretical saturation—that is, continuing data collection until no new data or information emerges from interviewees. In this study, 13 participants were selected using the snowball sampling method for the grounded theory interviews (saturation was achieved at the 13th interview).

Data analysis in the grounded theory method was performed through three stages: open coding, axial coding, and selective coding. It is worth noting that the MAXQDA qualitative data analysis software was used to analyze the interviews. Coding was conducted as follows. To enhance scientific rigor, credibility, and reliability, the following measures were used: researcher sensitivity to methodological coherence, appropriate sampling, repetition of findings, and use of participant feedback. To validate the findings, the results of the analysis and coding were shared with six individuals (including three study participants and three non-participants) to evaluate whether the extracted codes and conceptual labels were appropriate and valid representations of the data content. Achieving theoretical saturation (i.e., no new concepts or categories emerging from the collected data, especially in the final interviews) served as evidence of the validity of the findings.

To assess interview reliability using the intra-subject agreement method between two coders, after the researcher coded the interviews, one of the participants (from the interviewed experts) was asked to comment on the coding.

Table 1. Calculation of Inter-Coder Reliability (Researcher and Interviewee)

Interview	Total Codes	Agreements	Disagreements	Test–Retest Reliability (%)
13	136	86	50	66

The findings of the table show that the total number of codes registered by the researcher and the interviewee was 235, the total number of agreements was 86, and the total number of disagreements was 50. Therefore, the inter-coder reliability for the interviews conducted in this study, calculated using the relevant formula, was 66%. Since a reliability level above 60% is considered acceptable (Moghimi, 2015), it can be concluded that the coding conducted in this study had acceptable reliability.

3. Findings and Results

The descriptive statistics of the participants in the interviews are presented in Table 2.

Table 2. General and Demographic Characteristics of the Interview Participants

Variable	Description	Frequency	Percentage
Gender	Male	11	0.85
	Female	2	0.15
Marital status	Married	11	0.85
	Single	2	0.15
Age	Under 30 years	1	0.08
	30–45 years	9	0.70
	46 years and older	3	0.22
Education	Master’s degree	3	0.24
	PhD student	5	0.38
	PhD	5	0.38
Work experience	5–10 years	3	0.21
	10–15 years	6	0.36
	15–20 years	3	0.29
	20 years and above	1	0.14
Field of expertise	Accountants	1	0.07
	Managers and internal auditors	4	0.31
	Faculty members	6	0.46
	Operational managers in management accounting	2	0.15

Causal conditions refer to the events, incidents, and occurrences that lead to the emergence or development of a phenomenon. A phenomenon refers to the main idea, event, or occurrence around which a set of actions or reactions are directed to manage it or to which a set of actions is related.

In this study, the set of causal conditions was categorized into three main categories and seven subcategories, as shown in Table 3.

Table 3. Open Coding and Concepts of Causal Conditions

Main Category	Subcategory	Concepts
Psychological–Social Motivation	Social norms and priorities	Social psychology theories examine how thinking and behavior are influenced by others and include understanding people (social cognition and individuals’ emotions), attitudes, social influence, and social interactions and relationships. A review of the humanities literature, especially in the field of accounting, indicates that these sciences have evolved from a mechanical, abstract, logical, and detached stance from psychological and behavioral norms to a flexible, operational, realistic stance aligned with human psychological realities. Management accounting has also undergone such a paradigm shift, especially in tasks related to macro-level decision-making, which are largely cognitive and judgmental. Although today the influence of behavioral–psychological and social norms of managers in management accounting decisions is considered crucial—and there is generally no disagreement among scholars and researchers on this—issues such as how this influence occurs, its extent, quantity and quality, sustainability, and continuity of psychological–social factors in management accounting decision-making, as well as environmental and organizational variables and their collective outputs, remain challenging research topics. In fact, the management accounting information system, as a comprehensive information system, is influenced by various environmental, contextual, and behavioral factors. Influential constructs on non-monetary compensation in management accounting include self-presentation traits, stimulus reasoning, inequity aversion, egocentric fairness, loss framing, social presence, motivational reasoning, overconfidence, systematic judgment, fairness, honesty, social identity, reciprocity, salience, shortsighted decision-making, confidence, and collectivism.
	Motivational psychology	Almost all psychological studies present the methods of management accounting used. In most cases, these theories target various aspects of motivation and do not directly conflict or compete with each other. The assumptions underlying motivational theories are diverse. For example, the pleasure assumption posits that the primary goal of individuals is to maximize pleasure and minimize discomfort. Some cognitive-based motivational theories assume that individuals prefer cognitive consistency or cognitive mastery over their environment. Cognitive consistency refers to a state of mental harmony among individuals or at least the absence of dissonance. When cognitive dissonance occurs, individuals are assumed to experience unpleasant mental tension leading to stress, and their motivation to reduce this stress drives them to achieve cognitive

		consistency by changing their mental state. The cognitive mastery assumption posits that individuals seek to understand the causes of their and others' behaviors to explain and predict their environment, even if this understanding is distressing. Therefore, one of the constructs affecting non-monetary compensation in management accounting is motivational psychology, which includes Uncertainty theory, Goal-setting theory, Consistency theory, Organizational justice theory, Expectancy theory, Autonomy theory, Person–environment fit theory, and Need theory.
	Cognitive psychology	Cognition involves mental processes and states. Most psychological theories assume that cognition is bounded rationality rather than complete and optimal rationality. In other words, individuals intend to behave rationally, but due to the limited capacity of their cognitive processes and the complexity and unstructured nature of many issues (such as budget development and implementation, including information search, cost-benefit assessment, and evaluation of probabilities for each option), they do not behave in a fully rational manner. Since individuals do not always use their full mental capacity to consider all information about all alternatives and select the best one, they often choose the first option identified that surpasses certain acceptable levels. Most cognitive psychology research examines how and how well individuals make judgments and decisions. One of the constructs influencing non-monetary compensation in management accounting is cognitive psychology, which includes Behavioral decision theory and research on judgment and decision-making performance. Concepts such as Probabilistic judgment, heuristics and biases, Prospect theory and framing, search heuristics, and Probabilistic functionalism are discussed within behavioral decision theory in cognitive psychology. Additionally, concepts such as Mental models and the effects of decision outcomes on judgment and decision-making performance are also influential factors in this regard.

According to Table 3, the causal conditions include three subcategories: social norms and priorities, motivational psychology, and cognitive psychology.

Axial coding entails identifying the patterns present in the data. At this stage, the study's core and subcategories are displayed within a model. In this research, the core category is the value of non-monetary compensation in management accounting. The axial conditions are presented in Table 4.

Table 4. Open Coding of Core Concepts

Main Categories	Subcategories	Concepts
Value of Non-Monetary Compensation in Management Accounting	Individual level	The value of non-monetary compensation in management accounting at the individual level appears in two conceptual streams: individual choice studies and strategic choice studies. In individual choice studies, the central question is how individuals solve problems—specifically, how effectively a person solves issues independently, without interaction with or influence from others. Many studies have assumed the "economic man" model for individual problem solving; however, a substantial body of research contradicts this model. Within this stream, individual characteristics such as motivation, participation, accountability, decision-making, ethics, temperament, culture, fairness, and the individual's response to accounting information are emphasized. Strategic choice studies examine the role of strategic behavior in a person's decisions or in individual decision-making, analyzing the behavior of other actors engaged in the decision. Topics include negotiation studies, negotiation under asymmetric power, third-party (neutral) effects, reputation, and related themes.
	Group level	At this level, behavior concerns a small number of individuals referred to as group members, whose distinct feature is cohesion and interdependence. It is assumed that individuals occupy the same hierarchical level and that their behaviors culminate in a unitary or group outcome. Behavioral management accounting research at the group level investigates the activities of group members; individuals located at different organizational hierarchical levels are not examined within this level. Key topics include individuals versus group performance, group decision-making processes, the role of accounting and technical systems in group decision-making, the role of incentives and motivators, and the influence of group characteristics on performance.
	Organizational and environmental level	The value of non-monetary compensation in management accounting at the organizational and environmental level is discussed through two notions: the operational level and the aggregate (whole-organization) level. The operational level focuses on the multiple interactions among a small set of individuals situated at different hierarchical levels. As the group becomes larger, the research focus shifts from group members to the organization as a whole.

According to Table 4, the core category in this study is the value of non-monetary compensation in management accounting. The first main category pertains to the individual level, which includes the subcategories of individual choice studies and strategic choice studies; the second main category pertains to the group level; the third main category pertains to the organizational level; and, ultimately, the third main category pertains to the organizational and environmental level.

Context refers to the specific set of characteristics related to a phenomenon—that is, the setting in which events occur over a bounded period. In this research, two main categories—economic factors and cultural factors—constitute the contextual conditions, as presented in Table 5.

Table 5. Open Coding and Concepts of Contextual Conditions

Main Category	Subcategory	Concepts
Agile Management Accounting	—	Agile management accounting is a modern approach to agile reporting, whereby development teams continuously release iterations of their reporting to obtain ongoing stakeholder feedback. This approach, which proceeds in defined cycles, requires high degrees of agility and adaptability from the development team. Accordingly, one construct influencing non-monetary compensation in management accounting is agile management accounting, encompassing relative performance evaluation, “heroic” incentives, accuracy of social information, responsibility accounting, causal framing of performance reports, involvement in metric-design, accuracy of accounting information, buyer–seller gains and losses in transfer pricing, negotiated transfer pricing, incentive compensation, pay levels, inter-agent negotiation, staff pay levels and firm profitability, boundaries of responsibility centers, measurability of divisional performance responsibility, and budgeting procedures.
Effects of Management Accounting Techniques	Informational effect	The informational effects of management accounting techniques concern how rational individuals employ mental heuristics to locate and process management accounting information and how such information, in turn, shapes individuals’ selection and use of heuristics and mental representations. Management accounting techniques influence judgments and decisions not only by providing information but also by shaping how boundedly rational individuals process and search for that information and mentally represent their organizations and environments. The direction and magnitude of these effects often depend on individuals’ knowledge, experience, ability, and elements of their tasks and task contexts.
	Motivational effect	Motivational effects include the influence of individuals’ mental reference points (e.g., budget targets) and the tensions or dissonance between mental representations and behavior. These effects show how management accounting techniques affect individuals’ mental representations of decision outcomes and rewards—such as goal setting, expectancy levels, and stress. In other words, the motivational effects of management accounting techniques pertain not only to how techniques influence decision outcomes and rewards but also to how they shape individuals’ mental representations of those outcomes through psychological states and processes such as goal setting, expectancy, stress, and fairness beliefs.

According to Table 5, the first contextual category concerns agile management accounting, while the second category comprises the effects of behavioral management accounting techniques, which include informational effects and motivational effects.

Intervening conditions are the general conditions that influence how processes and strategies unfold, intensifying or attenuating phenomena. The intervening conditions in this study are presented in Table 6.

Table 6. Open Coding and Concepts of Intervening Conditions

Main Category	Subcategory	Concepts
Behavioral and Social Skills	Leadership skill	One intervening construct in non-monetary compensation within management accounting is the type and degree of leadership skill. Identifying individuals’ personality characteristics—especially narcissism, which shapes their decisions and can underpin incompetence and managerial inadequacies at various leadership levels—is critical.
	Teamwork	A significant portion of a team’s success or failure in behavioral management accounting is determined before and during its formation. Factors such as the management accounting team’s mission, members’ personal motives, hiring and division of responsibilities, structure and workflow, and the leader’s personality traits constitute key intervening conditions in behavioral management accounting.
	Accountability	Accountability is an intervening factor in non-monetary compensation within management accounting. With globalization and increasing business complexity alongside rapid technological advances, management accounting has expanded discussions on how managers of business and non-business units use accounting and other financial information. Such information satisfies managers’ internal needs and enables effective actions toward organizational success, progress, and planning.
	Goal-setting ability	In management accounting, it must be recognized that organizational priorities and goals are constantly changing. To remain resilient in such environments, organizations require reliable and sufficient information. One of the most valuable information systems in this regard is management accounting. This branch is not static; it must be continuously aligned with organizational and environmental conditions. Consequently, appropriate methods and specific frameworks should be provided to guide managerial decision-making.
	Communication skill (networking)	Strong communication ability is essential in behavioral management accounting. Effective communication enables the clear transmission of ideas and information in ways that are understandable to all stakeholders at both the individual and group levels of behavioral management accounting.
Foundational Concepts of Behavioral Management Accounting	Budgeting process	The oldest issue in behavioral management accounting is the budgeting process, which includes budget participation, motivational effects, leadership style, and budgetary slack.
	Performance management	The second category is performance management, which explains and examines organizational economic, internal, and external factors through the performance evaluation of organizational units.
	Information and decision-making	The third category is information and decision-making, which includes data stability/consistency and agency-related issues.

According to the above table, the intervening conditions comprise two main categories: behavioral and social skills and the foundational concepts of behavioral management accounting.

Strategies are the specific actions or interactions derived from the core phenomenon. In fact, strategies provide solutions for dealing with the phenomenon—that is, how to manage, address, and accomplish matters related to the main phenomenon. In this study, the strategies are presented in Table 7.

Table 7. Open Coding and Conditions Related to Strategies

Main Category	Subcategory	Components
Principles of Behavioral Management Accounting	Stewardship	This subcategory, as one of the principles of behavioral management accounting, ensures that relationships and resources are actively managed to protect financial and non-financial assets, as well as the organization's reputation and value.
	Trust	Stewardship fosters trust. Accountability and due diligence make the decision-making process more objective. Balancing short-term business interests against long-term stakeholder value enhances credibility and trust.
	Value	This component enables the assessment of impacts on value and the simulation of different scenarios, thereby establishing cause-and-effect relationships between inputs and outputs.
	Relevance	Relevant information enables the organization to plan and source the information needed to develop strategies and execute tactics.
	Influence/Information Sharing	Adhering to this principle creates an organizational mindset that is influential and enables better decision-making about strategies and their implementation at all organizational levels.

As shown in Table 7, the main strategic category is the principles of behavioral management accounting, which consist of five subcategories: stewardship, trust, value, relevance, and information sharing.

Consequences refer to the outputs or results of actions/interactions. In this study, consequences are categorized into two main categories: external factors and internal factors. The external factors include the subcategory of social trust, while the internal factors include capital market growth and development as well as financial growth and development, as shown in Table 8.

Table 8. Open Coding and Conditions Related to Consequences

Main Category	Subcategories	Components
Individual level	Personal brand	Among the main factors contributing to the development of a personal brand in behavioral management accounting for evaluating non-monetary compensation are the differentiation of management accountants from others, self-actualization, and self-enhancement. These components foster credibility and authenticity, create advancement opportunities, and establish distinctiveness and uniqueness in the field of management accounting and in the knowledge of using information and communication tools. Moreover, flexibility, recognition of inner talents, and interest in the specialization of management accounting foster self-actualization, while self-control, self-awareness, and self-learning contribute to self-enhancement.
	Performance improvement	Key factors contributing to improvement in the evaluation system of non-monetary compensation in management accounting include enhancing quality in the domain of personal behavioral management accounting and enhancing quality in the domain of organizational behavioral management accounting.
Group level	Professional credibility	Among the main factors fostering the value of non-monetary compensation in management accounting are professional development, professional commitment, and team/group cohesion. These components lead to favorable public relations, clarification of professional identity, enhancement of professional status, strict adherence to standards and regulations, and the creation of positive and effective workplace relationships based on multilateral collaboration.

To explain the final model of the study, the components of coding are presented in the conceptual model shown in Figure 1 below.

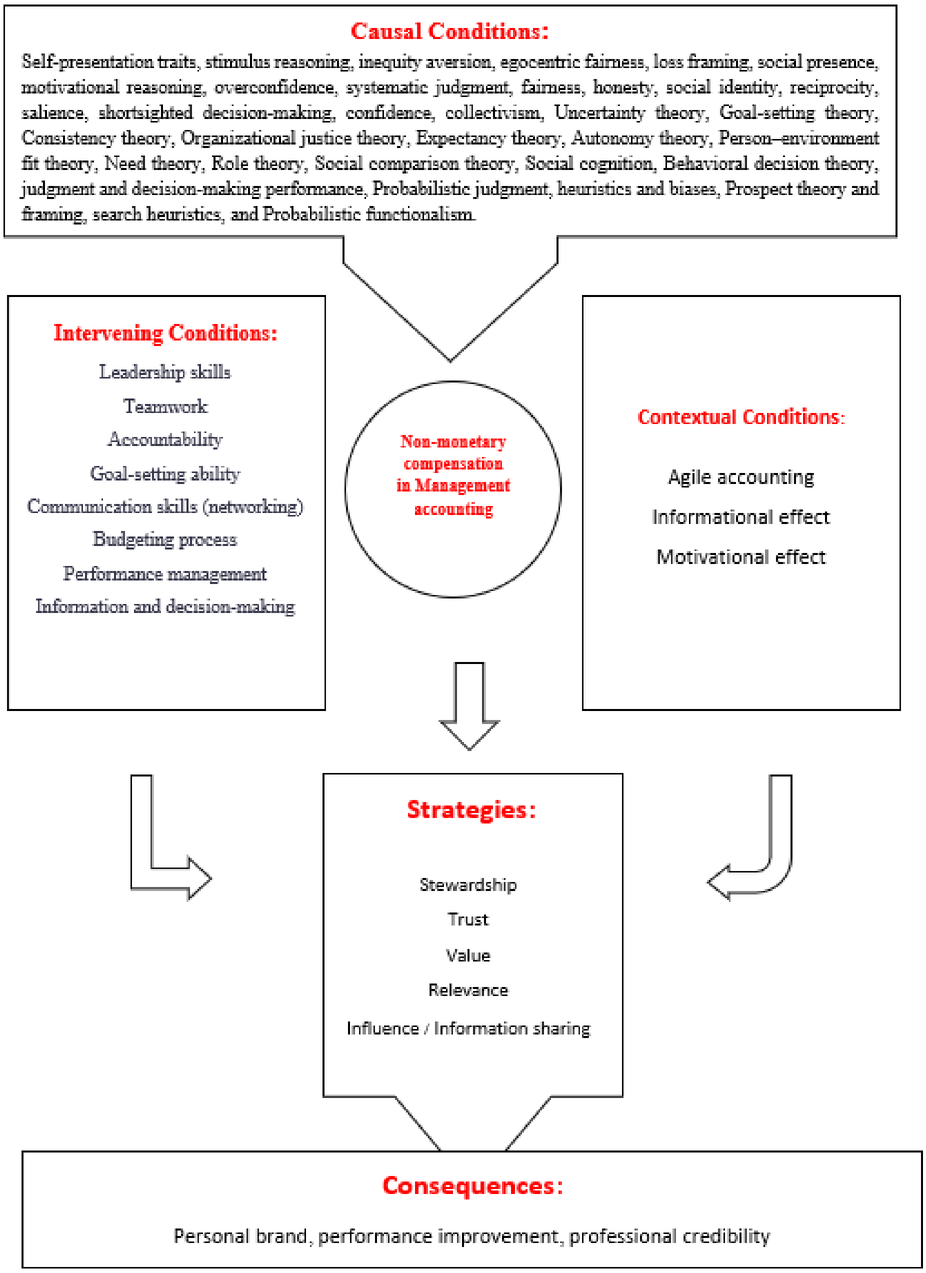

Figure 1. Conceptual Model of the Research

For qualitative validation of the model, the Delphi method was used. In the first round of this study, a list of categories, subcategories, and concepts was provided to experts to obtain their opinions. In the second round, the set of collected factors was presented to a second group of experts. Ultimately, the subcategories and concepts that received higher average ratings from the experts were selected.

In this study, the Delphi panel consisted of 10 participants who were experts and university faculty members. The questionnaire was distributed to them via email. Therefore, to determine the significance of the extracted categories, the Binomial test was applied at the 0.05 significance level. To use this test, data values had to be classified into two groups. Accordingly, the responses "very low," "low," and "no opinion" were placed in the first group, and the responses "high" and "very high" were placed in the second group.

Table 9. Conceptual Statements Related to the Concepts Derived from the Delphi Method

Category	Observed Probability ≤ 3	Observed Probability > 3	Sig.
Effects of techniques	0.20	0.80	0.035
Principles	0.13	0.87	0.000
Psychology of social norms and priorities	0.13	0.87	0.007
Motivational psychology	0.20	0.80	0.000
Cognitive psychology	0.00	1.00	0.035
Individual	0.13	0.80	0.000
Concepts	0.00	1.00	0.000
Core category	0.20	0.80	0.035
Skills	0.20	0.80	0.035
Group	0.20	0.80	0.035

According to the results of the binomial test in Table 9, all main categories are statistically significant at the 0.05 level. Therefore, the above dimensions were considered as the components of the value of non-monetary compensation in Management accounting.

4. Discussion and Conclusion

The findings of this study revealed that the evaluation of non-monetary compensation in Management accounting is shaped by a constellation of psychological, social, and contextual factors that operate at individual, group, and organizational levels. The results indicated that experts overwhelmingly regarded psychological–social motivation—including social norms, cognitive psychology, and motivational psychology—as the most salient causal conditions influencing the perceived value and effectiveness of non-monetary compensation. This aligns with prior studies asserting that non-financial rewards function as powerful motivators by fulfilling higher-order psychological needs such as recognition, self-efficacy, and belongingness [5, 6]. Furthermore, these findings underscore that while financial rewards can drive short-term behaviors, non-monetary incentives are more instrumental in sustaining long-term commitment and engagement [7, 8]. The emphasis by experts on motivational and cognitive dimensions resonates with theoretical models that conceptualize employee motivation as a product of both rational-economic and socio-emotional calculations [4, 9].

The study also revealed that the core category of non-monetary compensation operates simultaneously at individual, group, and organizational-environmental levels, highlighting its multidimensional nature. At the individual level, recognition, self-actualization opportunities, and career development were viewed as crucial in enhancing job satisfaction and personal brand equity. This is consistent with research demonstrating that individual-level non-financial rewards, such as autonomy, appreciation, and skill-building, significantly improve affective commitment and reduce turnover intentions [15, 30]. At the group level, experts emphasized team cohesion, peer recognition, and collective achievements as key components of non-monetary reward systems, echoing studies that show group-based incentives foster collaboration, trust, and knowledge sharing [13, 14]. At the organizational level, non-monetary rewards were tied to broader cultural and environmental contexts, such as supportive leadership and organizational learning climates, which previous literature associates with innovation and adaptability [19, 25]. These findings support the notion that non-financial rewards are embedded in complex socio-structural systems rather than isolated HR practices.

Additionally, two main categories—Agile management and the effects of management accounting techniques—emerged as critical contextual conditions. The emphasis on agile management accounting reflects the growing need for adaptive, iterative reward systems in dynamic environments. This is congruent with evidence that agile HR practices enhance employee responsiveness, engagement, and innovation by aligning reward structures with rapidly evolving strategic priorities [4, 17]. Experts also highlighted informational and motivational effects of accounting techniques as contextual factors shaping how employees perceive and respond to non-financial rewards. This is supported by findings showing that management accounting systems serve as cognitive frameworks through which employees interpret organizational values, fairness, and expectations, thereby influencing their motivational orientations [20, 21]. These insights reinforce the argument that the effectiveness of non-monetary rewards depends not only on their content but also on the broader accounting and control systems that frame their delivery and evaluation [18, 22].

The study further identified two sets of intervening conditions—behavioral and social skills, and foundational concepts of behavioral management accounting—that moderate the relationship between non-monetary rewards and employee outcomes. Leadership skills, teamwork, accountability, goal-setting, and networking capacity were seen as essential enablers that shape how employees experience and capitalize on non-financial incentives. Prior research has similarly found that employees with higher social and behavioral competencies derive more value from non-monetary rewards because they are better equipped to translate recognition and developmental opportunities into enhanced performance [3, 24]. The inclusion of foundational behavioral accounting concepts such as budgeting processes, performance management, and decision-making aligns with evidence that these mechanisms provide the structural scaffolding through which rewards are operationalized and linked to performance [27, 28]. By integrating these behavioral underpinnings, the study confirms that reward systems cannot be evaluated in isolation from the managerial and accounting practices that embed them in day-to-day work.

Importantly, the study found that the only main strategic category underpinning effective non-monetary compensation systems was the set of principles of behavioral management accounting, encompassing stewardship, trust, value, relevance, and influence. This reinforces the idea that successful non-financial reward systems must be anchored in broader governance and cultural principles rather than merely serving as ad hoc HR tools. Previous literature highlights that stewardship-based reward approaches foster a sense of shared responsibility, while trust and transparency enhance perceptions of fairness and legitimacy [14, 23]. Likewise, ensuring the relevance of rewards to employees' roles and contributions has been shown to amplify their motivational effect, while perceived organizational influence of reward systems enhances their symbolic value and signals employee worth [2, 26]. This alignment with prior evidence strengthens the conclusion that behavioral principles act as strategic levers that determine the effectiveness of non-monetary compensation in driving desired behaviors.

The findings also revealed the primary consequences of effective non-monetary compensation systems: enhancement of personal branding, improvement of individual and organizational performance, and strengthening of professional credibility. This mirrors earlier studies suggesting that non-financial rewards enhance employees' reputational capital, self-confidence, and career trajectories, thereby increasing their commitment and discretionary effort [10, 12]. Improvements in performance associated with non-monetary incentives have been widely documented across sectors, from banking to education, indicating that such rewards stimulate intrinsic motivation and task engagement [5, 11]. Furthermore, the association between non-financial rewards and professional credibility corroborates research showing that recognition and developmental rewards elevate employees' perceived professional status and reinforce their adherence to organizational standards and ethics [6, 13]. Collectively, these outcomes underscore the strategic importance of embedding non-monetary compensation within organizational performance architectures.

Overall, this study advances the literature by offering an integrated behavioral framework for evaluating non-monetary compensation in management accounting, demonstrating how psychological, contextual, and behavioral mechanisms converge to shape its effectiveness. The findings substantiate the argument that non-financial rewards are not peripheral supplements to financial pay but core strategic instruments that drive motivation, engagement, and organizational learning [1, 9]. They also highlight the necessity of aligning reward systems with organizational culture, accounting practices, and employee competencies to unlock their full potential [19, 25]. In doing so, the study addresses a critical gap in both theory and practice by moving beyond fragmented treatments of rewards and offering a holistic model grounded in behavioral management accounting principles.

Despite its contributions, this study is subject to several limitations. First, the qualitative approach, while valuable for generating rich and nuanced insights, limits the generalizability of findings to broader populations. The reliance on a relatively small purposive sample of 13 experts means that the perspectives captured may not represent the full diversity of viewpoints within the field of management accounting. Second, the study's focus on non-monetary compensation might have inadvertently underemphasized the interactive effects of financial and non-financial rewards, which often operate synergistically. Third, the cross-sectional design captures perceptions and experiences at a single point in time, thereby not accounting for temporal dynamics such as how the perceived value of non-financial rewards may evolve with tenure, organizational changes, or external economic conditions. Fourth, cultural and institutional contextual factors specific to the study's participants may limit the applicability of the findings to other regions or industries with different value systems and reward expectations. Finally, the use of self-reported data from interviews raises potential concerns about social desirability bias, as participants might have portrayed non-monetary rewards more positively due to prevailing professional norms.

Future studies should adopt mixed-method or longitudinal designs to triangulate qualitative insights with quantitative data and assess causal relationships over time. Expanding the sample to include a more diverse and international pool of participants could provide a broader understanding of how cultural and institutional contexts shape the perception and impact of non-monetary rewards. Further research could also investigate the interaction effects between financial and non-financial rewards, examining how their combined use influences motivation, performance, and retention across different employee segments. Experimental studies could test the behavioral mechanisms identified here—such as the role of trust, stewardship, and cognitive framing—in controlled settings to establish their causal impact. Additionally, future research might explore sector-specific models of non-monetary reward evaluation, considering the distinct performance logics and stakeholder expectations in industries such as healthcare, education, and technology. Finally, integrating employee outcome metrics (such as engagement, creativity, and well-being) with organizational performance indicators would strengthen the evidence base for the strategic value of non-monetary compensation.

Organizations seeking to enhance their reward systems should design non-monetary compensation strategies that are aligned with their cultural values, performance goals, and employee development priorities. Managers should ensure that non-financial rewards are perceived as fair, relevant, and transparent, as these perceptions strongly influence their motivational effectiveness. Building employees' behavioral and social competencies—such as communication, teamwork, and goal-setting skills—can amplify the benefits of non-monetary rewards by enabling employees to better utilize recognition and developmental opportunities. Firms should also embed reward systems within agile management accounting frameworks that allow for continuous feedback, adaptation, and alignment with evolving strategic objectives. Finally, leaders should treat non-monetary compensation not as isolated HR initiatives but as integral components of their organizational governance and performance management systems, signaling trust, stewardship, and long-term investment in their human capital.

Authors' Contributions

Authors equally contributed to this article.

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Declaration of Interest

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Ethical Considerations

All procedures performed in this study were under the ethical standards.

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