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Getting Crowdsourcing Right: Aligning Crowdsourcing Goals and Decision-Making Processes

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ABSTRACT

The mismatch between crowdsourcing goals and decision making across the crowdsourcing process is likely to not only generate participants' negative feelings but also unsatisfactory outcomes. However, the crowdsourcing literature has thus far mainly focused on how to make decisions at each stage of the process, overlooking the alignment between crowdsourcing goals, decision making and project outcome satisfaction. To address this gap, our research conducted in-depth interviews with managers involved in crowdsourcing, triangulated with secondary data from real-life contests to provide a comprehensive analysis. Specifically, we empirically examine the influence of three types of crowdsourcing goals, namely, fishing, hunting and collective production; on decision making at each stage of the crowdsourcing process, that is, ideation, selection, implementation and evaluation. We additionally observe how the alignment between crowdsourcing goals and decision making affects managers' perception and evaluation of the crowdsourcing initiative. We thus contribute to the crowdsourcing and innovation management literature by investigating project-related crowdsourcing decision making in line with predefined crowdsourcing goals and provide a blueprint for managers toward a more effective project management style.

1 | Introduction

Given the environmental uncertainty and complexities of innovation, organizations have a stronger need to beyond boundaries and engage with their environment and external stakeholders in more open ways (Felin and Zenger 2014). Open innovation approaches therefore have received increased attention over the last 15 years (Chesbrough 2017; Wolf and Bernhart 2022), among which crowdsourcing emerges as a managerially relevant strategy, but requiring adapted management approaches (Gurca, Bagherzadeh and Velayati 2023). In contrast with other open innovation approaches, crowdsourcing is characterized by the involvement of many (un)known participants, who may be customers or noncustomers of a company. They take part in ideation and/or idea selection, generally via creative contests (Howe 2006; Nambisan and Sawhney 2007). Although crowdsourcing has the potential to shorten product development life cycles, help to adapt better to consumer expectations and lead to greater innovation efficiency (Brabham 2008; Kohler 2015), there are still many challenges that organizations must meet when managing the crowdsourcing process (Karachiwalla and Pinkow 2021). Previous research shows that the outcomes of the prevailing crowdsourcing contests are often unsatisfactory (e.g., Dahlander and Piezunka 2020; Dahlander and Wallin 2020). For example, NASA's 14 crowdsourcing projects only fully solved three problems (Lifshitz-Assaf 2018), and BP received over 43,000 suggestions with little value (Blohm

et al. 2011). In their conceptual paper, Gurca, Bagherzadeh and Velayati (2023) argue that such disappointing crowdsourcing outcomes might be due to the misalignment between the crowdsourcing type and the solution-search (or crowdsourcing) process. They suggest that managers should select the most appropriate crowdsourcing type, that is, fishing, hunting or creative production, to improve the efficiency of the crowdsourcing process especially when involving diverse projects.

In various other disciplines, research has highlighted the significant role of project goals in project management (e.g., Clegg and Shepherd 2007; Sauer and Reich 2009). It indicates that project goals need to be aligned with management decisions throughout the project process, ultimately shaping the project outcomes (e.g., Shenhar 2004). Considering crowdsourcing as a corporate project, managers might need to take decisions during the project process based on the firm's strategy, dominant management logic (effectuation and causation), cognitive frames (intuition and rationality) or mindset (exploration and exploitation) (e.g., Abubakar et al. 2019; Calabretta, Gemser and Wijnberg 2017; Hacklin and Wallnöfer 2012; Laureiro-Martínez et al. 2015; Luoma and Martela 2021; Reymen et al. 2015). Crowdsourcing goals might therefore play an important role in decision making throughout a crowdsourcing project.

The existing literature has so far lacked an analysis of 'why to crowdsource' (goals) and instead directly investigated how decisions are or should be made during the crowdsourcing process (Nevo and Kotlarsky 2020), focusing mainly on how to achieve crowdsourcing outcomes linked to idea implementation (Blohm, Leimeister and Krcmar 2013; Ford, Richard and Ciuchta 2015; Lüttgens et al. 2014). Such an approach fails to take into account the alignment between the three essential components of a crowdsourcing project, namely, the crowdsourcing goals, the crowdsourcing project process and the crowdsourcing project outcomes. Lacking a good understanding of the role of goals throughout the crowdsourcing process and their fit with decision making for design elements may contribute to inconsistencies and therefore confusion and negative feelings among both the project managers and the participants (Djelassi and Cambier 2023; Hanine and Steils 2019).

Hence, we seek to understand how to better align crowdsourcing project goals with decision making across all stages from project-level perspective, and whether the alignment affects the managers' satisfaction with crowdsourcing project outcomes.

Our research thereby responds to Nevo and Kotlarsky's (2020) call for research to gain a better understanding of what companies expect crowdsourcing to contribute to and, most importantly, to align why to crowdsource with how to make decisions in the upstream and downstream phases of the crowdsourcing process (Nevo and Kotlarsky 2020). Although past research has conceptualized three goals of crowdsourcing types (Gurca, Bagherzadeh and Velayati 2023), it remains unclear how these goals affect the consistency of managerial decisions regarding the choice of crowdsourcing design elements, such as reward selection, communications to participants or selection criteria. More generally, extant research has mostly focused on crowdsourcing goals, design choices and outcomes in isolation, without addressing how these elements interact. Yet entrepreneurial research has shown that the shift from one goal to another affects the management and outcome of a project (e.g., Clegg and Shepherd 2007; Shenhar 2004). Thus, understanding these interactions as well as the drivers and conditions of managerial consistency between initial goal setting and decision making becomes crucial as it helps to alleviate participants' frustration and prevents firms from making overpromises (Hanine and Steils 2019).

Our paper therefore also contributes to the innovation literature by providing managers with guidance regarding consistent decision making at each stage of the crowdsourcing process. Indeed, according to Troll, Blohm and Leimeister (2016), analysing each stage of the crowdsourcing journey and experience individually not only offers a more fine-grained contribution but also provides a clearer measure of success compared to a more superficial approach that overlooks individual stages.

Finally, the improved guidance for more consistent management can help to mitigate stakeholder frustration or negative impacts on the brand image or the future attendance of participants (e.g., Hanine and Steils 2019).

Our paper proceeds as follows. First, we review the relevant literature on crowdsourcing and its management, including different design elements. Then, we discuss the extant literature on how project goal setting aligns with decision making in project management and consequent project outcomes. Next, we detail the qualitative method used in this research, specifically the triangulation of in-depth interviews with managers and secondary data derived from crowdsourcing platforms. Our findings reveal three major types of project goals and show how those project goals align with the management of crowdsourcing processes and consequently the project outcomes. Finally, we discuss the theoretical contributions and the managerial implications of our findings.

2 | Theoretical Background

2.1 | Crowdsourcing Management From a Project-Level Perspective

In line with an input–process–output framework for crowdsourcing (Ghezzi et al. 2018), the existing literature has analysed the antecedents of crowdsourcing decisions and their goals (e.g., information processing, idea gathering and solution elaboration) (Thuan, Antunes and Johnstone 2016). For example, some managers decide to run crowdsourcing projects to pursue the goal of increasing operational efficiency while others may launch crowdsourcing as a complement to in-house R&D activities in pursuit of the goal of delivering a new product (Nevo and Kotlarsky 2020).

The existing literature has investigated how, during the crowdsourcing process, such design elements affect the outcome of each stage of the crowdsourcing project process (see Table 1). For example, in the ideation stage, some scholars have considered how managerial choices related to the description of

TABLE 1 | Summary of design elements that affect the crowdsourcing process at each stage.

Crowdsourcing stage	Design element	How the design element(s) affects the outcome of the crowdsourcing stage	Examples of references
Idea generation	Incentive and reward	Rewards can increase the number of participants, and higher rewards positively influence the appropriateness of the new product ideas or the quality of solutions	Acar (2018); Lee et al. (2015); Li and Hu (2017)
	Problem statement	The formulation of the problem statement has an impact on the quantity and quality of the solution, for which suggestive or too clear problem statements can reduce the quality of crowdsourced ideas	Gillier et al. (2018); Pollok, Lüttgens and Piller (2019); Sieg, Wallin and Von Krogh (2010)
	Platform	Online community and in-process feedback on the platform increase the participants' performance and the quantity of ideas	Jian et al. (2018); Ye and Jensen (2022)
	Contest duration	Contest duration affects both the number and the quality of participants and the overall quantity and quality of solutions	Ayaburi, Lee and Maasberg (2020); Chen et al. (2021)
	Communication	Communicating with the participants during the contest period increases the possibilities of high-quality submissions	Blohm et al. (2018); Zheng et al. (2014)

(Continues)

TABLE 1 | (Continued)

Crowdsourcing stage	Design element	How the design element(s) affects the outcome of the crowdsourcing stage	Examples of references
Idea selection	Expert assessment, peer assessment, vox populi assessment	Assessments reduce the transaction costs and allow to keep relevant contributions	Blohm et al. (2018); Karachiwalla and Pinkow (2021)
Idea implementation	'Not invented here' syndrome	Internal barrier to adopting new ideas that come from external sources	Lüttgens et al. (2014)
	Communicating with other business units	Communicating with other business units within the company about crowdsourcing ideas can increase the likelihood of implementation	Blohm, Leimeister and Krcmar (2013)
	Support and commitment from the top management	Overcoming internal resistance to externally developed solutions makes the transformation of crowdsourced ideas faster and easier	Ford, Richard and Ciuchta (2015); Lüttgens et al. (2014)

the problem statement or reward affect the quality or number of crowdsourced ideas (Acar 2018; Gillier et al. 2018; Lee et al. 2015; Li and Hu 2017; Pollok, Lüttgens and Piller 2019; Sieg, Wallin and Von Krogh 2010). Concerning the selection stage, some researchers have discussed how to make decisions regarding the assessment mechanisms to influence the selection of relevant ideas (Blohm et al. 2018; Karachiwalla and Pinkow 2021). For the implementation stage, several factors have been identified as affecting the implementation of crowdsourced ideas, such as employees' reluctance to adopt the crowdsourced ideas due to 'not-invented-here' syndrome (Lüttgens et al. 2014), top management support and lack of commitment to crowdsourced ideas (Ford, Richard and Ciuchta 2015; Lüttgens et al. 2014).

Regarding the output part of crowdsourcing projects, the previous literature has focused more on crowdsourcing outcomes, such as the number of individuals participating in a project, the project completion rate, the number of solutions and the quality of solutions (Dissanayake et al. 2019; Girotra, Terwiesch and Ulrich 2010). Steils and Hanine (2022) further explored firm's expected crowdsourcing project outcomes in the post-crowdsourcing stages, such as participant satisfaction and brand image.

Hence, the current literature has mainly analysed the crowdsourcing goals, decisions on design elements, and outcomes separately. It has therefore lacked an understanding of the interplay among the three elements. From a firm-level perspective, Füller, Hutter and Kröger (2021) provided companies with guidance on how to develop capabilities to cope with the three phases (from the setup stage, e.g., setting the intended goal, to the idea generation, selection and implementation stages). More specifically, they proposed the concept of crowdsourcing as a service (CaaS) to guide companies in developing routines and templates as well as the capabilities to run the crowdsourcing project. In this case, managers could embed crowdsourcing as a regular innovation routine to run a series of consecutive crowdsourcing projects in a generalized way. However, this CaaS approach neglects the specific goals that different crowdsourcing projects may have in the setup phase and how they relate to upcoming decisions. Moreover, Du, Leten and Vanhaverbeke (2014) argued that, even within the same firm, innovation projects often differ in manifold

aspects (e.g., complexity) and therefore should be managed differently. However, Markovic et al. (2021) found that the existing crowdsourcing research has mainly analysed firm-level goals and that project-level crowdsourcing research still requires a more in-depth understanding. Therefore, we investigate how these different project goals may align with decision making across crowdsourcing project stages, namely idea generation, selection and implementation.

2.2 | The Role of Project Goals in Project Management

Project goals have been shown to play an important role in managers' decisions in project management (e.g., Clegg and Shepherd 2007; Sauer and Reich 2009; Shenhar 2004). For example, Clegg and Shepherd (2007) highlighted that, when the project goal changes from one formulation (e.g., IT upgrade) to another (e.g., better patient care), several aspects of a project management need to be changed (e.g., leadership, ownership and metrics). Shenhar (2004) also analysed a goal shift in organizational science from one (e.g., 'getting the job done') to another (e.g., 'creating a competitive advantage'), in which managers executed project management differently to create better business results. Similarly, Sauer and Reich (2009) found that rethinking the practice of project management requires a goal shift from product creation to organizational benefit. From these various contexts, we observed that the particularity of project goals lies in the fact that they are dynamic and can differ from one project to another. Moreover, scholars in other disciplines have explored how project goals relate to decision making throughout the project management process and affect project outcomes in diverse contexts. In the crowdsourcing context, though some scholars mentioned that crowdsourcing can pursue different goals (e.g., Gurca, Bagherzadeh and Velayati 2023; Thuan, Antunes and Johnstone 2016), limited literature discussed the role of crowdsourcing goals in guiding the further crowdsourcing process.

Gurca, Bagherzadeh and Velayati (2023) proposed three concepts of crowdsourcing types, namely, fishing, hunting and collective production. A 'fishing' crowdsourcing type awaits active and independent participants (solution providers) to contribute to the implementable solutions for defined and not highly technical problems under no time constraints or no high-urgency conditions. A 'hunting' crowdsourcing type seeks experts to generate implementable solutions for defined and highly technical problems under time constraints or high-urgency conditions. Finally, the crowdsourcing type of collective production aims to attract potential participants with different knowledge who exhibit a passion for addressing broad and ill-defined problems and creating new and innovative ideas rather than implementable solutions (Gurca, Bagherzadeh and Velayati 2023). Furthermore, Gurca, Bagherzadeh and Velayati (2023) propose the conceptual assumption that if managers set the wrong crowdsourcing type to mismatch the solution search process, it ultimately might contribute to undesirable outcomes. Therefore, Gurca, Bagherzadeh and Velayati (2023) call for the need to provide more detailed explanations regarding how managers should make decisions during the crowdsourcing process when projects are of different types. Our study responds to this call by exploring the alignment between crowdsourcing's project goals and managers' decisions during the crowdsourcing process at a project level and how managers' decisions affect expected outcomes.

3 | Method

3.1 | Data Collection

To explore crowdsourcing project goals and how they relate to managers' decision making, we used a qualitative approach, in which we collected in-depth data about individual perceptions and behaviours (Denzin and Lincoln 2008). In particular, we triangulated in-depth interviews of crowdsourcing managers with secondary data from other existing crowdsourcing contest briefs. We chose semistructured interviews as the main source of data collection considering that it creates a deeper relationship between the interviewee and the researcher and has a higher possibility of encouraging more in-depth and honest responses than other methods (Daniels and Cannice 2004).

Interviewees were selected based on theoretical sampling criteria to generate sufficient divergence in the data (Pauwels and Matthyssens 2004). The study was conducted in China for two main reasons. First, China supplies a large workforce to crowdsourcing platforms (à Campo et al. 2019). In 2017, 30 million Chinese crowdsourcers participated in creative tasks for more than 190,000 corporations (Wang et al. 2020). Second, in 2014, Premier Li Keqiang proposed to promote crowdsourcing actively to stimulate companies to innovate (Cheng and Chang 2014). For the recruitment of participants, we sought crowdsourcing platforms that included more than one type of crowdsourcing tasks (such as logo design, software development, marketing planning and IT tasks). When selecting participants, we also sought companies that posted tasks on the above platforms in different industries. The reasoning was that different industries promote different crowdsourcing tasks. For example, companies in the food industry tend to post logo design tasks while companies in the IT industry prefer to post software tasks. Next, we generated sample variety by choosing to interview managers working in different departments, whose concerns may differ at different project stages. For example, a software development task involves programmers in the technical department, while a logo design task involves a manager in the marketing or the project department. However, these interviewees had all participated in the whole crowdsourcing project management process at least once. In particular, one of the interviewed experts worked for one of the global leading crowdsourcing platforms and had significant experience in the management of the entire process across different industries and crowdsourcing tasks, initiated by well-known FMCG brands, such as Procter & Gamble and Nestlé. Participants in the study were found through an online search using publicly available information, but also through professional social media.

In total, we recruited 17 interviewees (see Table 2). To mitigate potential biases, we avoided a directed approach and let managers share their experiences and the management process of crowdsourcing projects through open questioning. In this way, we aimed to uncover their crowdsourcing project goals, and how these goals relate to their management process, inductively. More specifically, we structured our interview guide in three sections. First, we asked the interviewees about their reasons for

TABLE 2 | Sample description.

Interviewee	Industry	Profession	Demand Type
1 IN01 (M)	Food	CEO	Logo design
2 IN02 (M)	Crowdsourcing	Customer service	Creative contests
3 IN03 (M)	Entertainment	CEO	Logo design
4 IN04 (M)	Chemical	Assistant	Logo design
5 IN05 (M)	Food	Marketing manager	Logo and packaging design
6 IN06 (M)	Food	Project manager	Logo, packaging, other series of design
7 IN07 (F)	Finance	Human resource manager	Logo design
8 IN08 (F)	E-commerce	Staff of operations team	Applet
9 IN09 (M)	Wine	CEO	Applet for order
10 IN10 (F)	Food	CEO	Applet for marketing
11 IN11 (F)	E-commerce	CEO	Improve traffic
12 IN12 (M)	IT	Programming	IT system development
13 IN13 (F)	IT	Programming	IT system development
14 IN14 (M)	IT	Programming	Obtain IT technology
15 IN15 (M)	Manufacturing	Marketing manager	IT system development
16 IN16 (F)	Crowdsourcing	Innovation manager	Creative contests
17 IN17 (M)	IT	Programming	IT system development

using crowdsourcing and what they expected from it. Second, for each project separately, the informants were asked about how they made decisions in each phase of the crowdsourcing process and their underlying motivations. Third, questions focused on the implementation process of the retained crowdsourcing solution, such as 'Why did your company apply crowdsourcing and what did you expect from it?', 'How did your company choose the crowdsourcing platform?', 'How did your company design the task description?', 'What were the criteria for selecting the winning idea?' and 'How did your company implement the crowdsourcing idea?'

To enhance the robustness of our qualitative findings, we adopted a data triangulation approach (Farquhar, Michels and Robson 2020), by collecting multiple data sources. Data triangulation is recommended to enhance confidence (Bryman 2020) and the accuracy of the analysis (Aarikka-Stenroos et al. 2017) and deepen and strengthen research outputs. We therefore complemented our in-depth interview data with an analysis of secondary data. The two types of data sources were unconnected, involving different creative crowdsourcing initiatives. More specifically, the secondary data were collected from two major crowdsourcing platforms that occupied different positions in the crowdsourcing landscape. The first platform is the leader in creative contests, in which international brands (e.g., Coca-Cola, Unilever and Procter & Gamble) launch brand creative contests (King and Lakhani 2013; Roth and Kimani 2014). It owns a network of 400,000 talented creatives in 164 countries, which is mainly composed of amateurs and semiprofessionals (eyeka.com 2022). In contrast to the first platform, the second platform consists of a creative community. This community has brought more than one million creative projects to life for thousands of entrepreneurs, savvy small business owners and brands with big ideas since 2008 (99 design.com 2022). The collected data were composed of 30 crowdsourcing projects, the crowdsourcing information of which is publicly available on the respective platforms. We selected these projects based on their types, namely product innovation (e.g., creating the concept for successful products or providing innovative ideas for a declining category), commercial innovation (e.g., refreshing a brand's identity, strategy or packaging design), brand strategy (e.g., creating engaging communication with customers), logo design or cover design. The final sample contained five projects related to product innovation, eight projects about the brand strategy, twelve projects regarding commercial innovation, two logo design projects and three projects on cover design. The information about these projects has been published on two separate crowdsourcing platforms. The contest briefs, brand managers' interview videos and other brands' crowdsourcing contest reports have been published on the social media account of the platform, along with detailed descriptions of the crowdsourcing contest and project managers' comments left on website pages. More specifically, brand managers' interview videos discussed why they decided to apply crowdsourcing, what they were looking for, how the crowdsourcing contest was conducted throughout the whole process and how they felt about crowdsourcing. Other brands crowdsourcing contest reports included information about the crowdsourcing goal (i.e., what the company brand was reportedly looking for), the approach (i.e., according to company brand's expectation, how they communicated with participants via task descriptions, what concept they tried to transfer to creative community, how many ideas were collected

in total from how many countries during the crowdsourcing time frame) and the results (i.e., how did the company refine these ideas and how did they inspire the company to reposition the brand, design packaging, logos, adverts, etc.). Besides, detailed descriptions of the crowdsourcing contest included information and requirements in terms of industry, design and colour template, design style and diverse requests from project managers. The comments left by project managers referred to how they perceived the platform, the solutions that they received from many designers and their assessment of the professionalism of the designers with whom they ended up working. The information within these crowdsourcing initiatives reflected managers' subjective thinking and decision making throughout such initiatives. We used these secondary data related to different crowdsourcing projects to complement our in-depth interviews, laying the foundation for our subsequent data analysis.

3.2 | Data Analysis

Figure 1 presents the systematic data analysis process involving five steps. We started with an inductive coding phase, which was completed by an abductive coding phase as recommended by Dubois and Gadde (2002) and Timmermans and Tavory (2012).

In the inductive coding phase, we followed a three-step approach: In step 1, we transcribed the interview and secondary data and thoroughly reviewed the transcripts. Through the initial review, we identify salient features of the transcripts and coded text segments that reflected key features according to data sources, either interviews or online observations. In step 2, we analysed the text segments coded in the previous step in relation to our research focus on crowdsourcing goals, specifically including the reasons for adopting crowdsourcing and the expected outcomes. We conducted open coding to refine these segments into first-order codes. In step 3, we used axial coding to further consolidate these first-order codes into second-order codes, forming a draft data structure.

Built through this three-step inductive coding process, the draft data structure integrated multiple data sources, following Farquhar, Michels and Robson's (2020) recommendation to employ data triangulation as a strategy to strengthen the robustness and trustworthiness of qualitative findings (Aarikka-Stenroos et al. 2017; Bryman 2020). Ultimately, data triangulation in our study achieved a mode of complementarity, which means the data sources complemented each other by providing different points of view, with some insights being interdependent and/or overlapping. This complementarity enriched our understanding of the crowdsourcing goals by providing a multidimensional perspective, thereby offering greater insight than relying on a single data source (Farquhar, Michels and Robson 2020).

Finally, using an abductive approach (Dubois and Gadde 2002), we linked our empirical insights to relevant literature (Gurca, Bagherzadeh and Velayati 2023; Karachiwalla and Pinkow 2021; Wilson, Bhakoo and Samson 2018). The process continued in multiple iterative rounds until theoretical saturation was reached, as recommended by Locke, Feldman and Golden-Biddle (2022)—that is, until no new empirical or conceptual insights emerged—yielding a final data structure (see Table 3). More specifically, through the above four steps of inductive and abductive observation, we aligned our empirical insights regarding different problem attributes, for example, time constraints, (no) urgency, (non) high-technical complexity with the conceptual description of Gurca, Bagherzadeh and Velayati (2023), which conceptually describes different crowdsourcing types. Those are fishing (i.e., waiting for solution providers to contribute implementable solutions), hunting (i.e., identified experts generate directly implementable outputs) and collective production (i.e., engaging passionate contributors to generate innovative solution ideas). Our findings indicate that crowdsourcing goals imply contributions from experts, active solution providers and passionate contributors to provide implementable solutions and innovative ideas. Although there are minor differences between our data and the description of Gurca, Bagherzadeh and Velayati (2023) regarding problem attributes (discussed

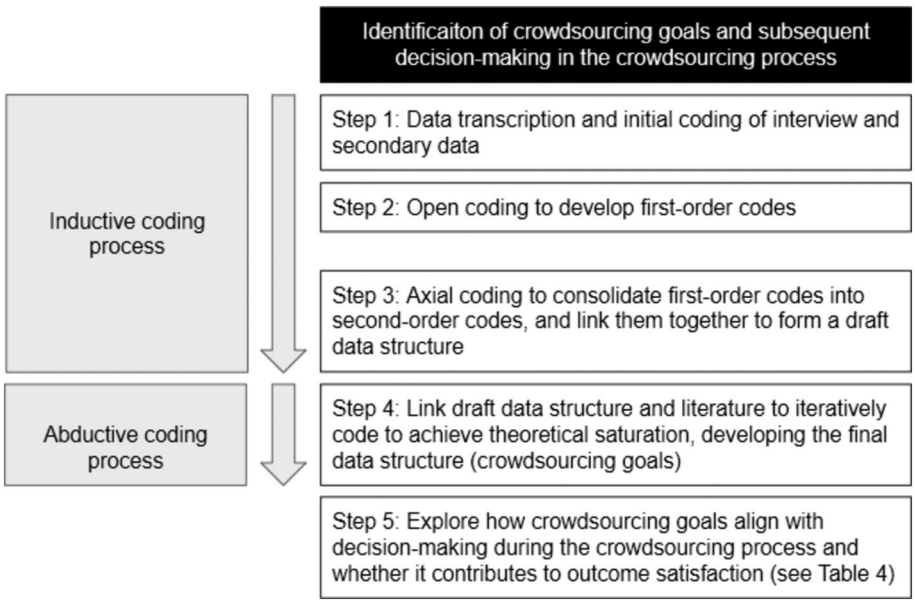

FIGURE 1 | Systematic data analysis flowchart.

TABLE 3 | Relationship between first-order codes, developed themes, and final data structure.

Verbatim	First-order code	Second-order code	Relevant literature	Final data structure based on Gurca, Bagherzadeh and Velayati (2023)
'We ask the programmer to write the code **based on our requirement**' (Verbatim 1: Interview 14, IN14). 'The boss **proposes two requirements** for (e-commerce) operation master' (Verbatim 2: Interview 11, IN11).	Project/Company requirements Hierarchy expectations	**Defined**	**Predefined solutions** (Karachiwalla and Pinkow 2021)	**Hunting**
'Lacking workforce to complete our clients' projects in a **timely manner**' (Verbatim 3: Interview 13, IN 13)	Lacking workforce Time pressure	**Urgent**	— —	
'The employees recruited with low wages are **not particularly capable** and cannot do the job' (Verbatim 4: Interview 11 IN 11). 'Our company would like to develop some new areas of **IT products** that are **beyond our own capabilities**' (Verbatim 5: Interview 14, IN14)	Lacking human resources Lacking technical/ technological resources	**High-tech**		
'This designer was super-fast to **respond** and did exactly what I asked when I **requested** changes' (Verbatim 6: online observation).	Meeting expectations	**Defined**	**Predefined solutions** (Karachiwalla and Pinkow 2021)	**Fishing**
'I contacted design agencies and they were not willing to provide a **logo design** (within my budget) and I definitely **had to** think of something else. Using crowdsourcing was **cheaper**' (Verbatim 7: Interview 1 IN01).	Lacking resources for non-tech projects Time and budget constraints	**Urgent and non-high-tech**	— —	

(Continues)

TABLE 3 | (Continued)

Verbatim	First-order code	Second-order code	Relevant literature	Final data structure based on Gurca, Bagherzadeh and Velayati (2023)
'We (brand) plan to grow using crowdsourcing as an approach... a complementary **source of new ideas** to traditional ideation methods (Verbatim 8: online observation)	Source for new ideas	**New and innovative ideas**	**Unconstrained ideas** (Wilson, Bhakoo and Samson 2018)	**Collective production**
'This (crowdsourcing) is a great opportunity to **get some fresh ideas and new perspectives** from our consumers on what they thought the future of coffee' (Verbatim 9: online observation).	Fresh ideas, new perspectives			
'This is a story of ... **trying to do something different**. The input from crowdsourcing can help R&D' (Verbatim 10: online observation).	External knowledge	**Access to external knowledge resources**	—	
'Crowdsourcing on [platform name] happens in the early research process where they (companies)'re **looking at concepts**, **not executions**. The company does not know exactly what they want, they are still **exploring**, they are still **open**' (Verbatim 11: Interview 16, IN16)	Open concepts, not executions	**Broad and ill-defined projects** **Not-necessarily implementable solutions**	—	

in Section 4.1), we adopt the terminology proposed by Gurca, Bagherzadeh and Velayati (2023) (i.e. hunting, fishing and collective production) to express the three crowdsourcing goals observed in our data, to avoid semantic bias and ensure conceptual clarity.

In the fifth and final step, the data were reanalysed to investigate how the goals identified in step 4 were aligned with decision making across the different stages of the process, and examine whether the alignment between both contributes to managers' satisfaction with the crowdsourcing outcomes. All the stages of the crowdsourcing process, related design elements and subsequent outcomes were identified and are summarized in Figure 2. We reviewed all the verbatims and transcripts to determine how the three crowdsourcing project goals related to decisions regarding the design elements of crowdsourcing and the expected outcomes.

4 | Findings

Our findings relate to crowdsourcing goals, their interaction with decision-making processes and the ways they influence anticipated crowdsourcing outcomes.

4.1 | Crowdsourcing Goals

Before analysing the alignment between crowdsourcing goals and decision making, we first needed to identify and describe the crowdsourcing goals observable in our context. In particular, our corpus was able to identify empirically the three crowdsourcing project goals described in the article by Gurca, Bagherzadeh and Velayati (2023), though two different nuances are identified in our data.

First, building upon our data corpus, we observed the existence of a 'hunting' crowdsourcing goal meeting the conceptual definition proposed by Gurca, Bagherzadeh and Velayati (2023), namely actively seeking experts for solving defined, urgent and high-tech problems, especially in urgent situations (see verbatims 1, 3, 4 and 5). Second, some of our data highlighted the existence of a 'fishing' crowdsourcing goal that pursues implementable solutions for defined and non-high-tech problems (see verbatims 6 and 7). However, in contrast to Gurca, Bagherzadeh and Velayati's (2023) proposition of such projects being 'non-urgent', our data still pinpoint a sense of urgency when describing such fishing goals (see verbatim 7). Third, some projects in our corpus showed the existence of a 'collective production' crowdsourcing project goal, as this type of project collects creative ideas for broad and ill-defined problems (see verbatims 8, 9 and 11). In contrast to Gurca, Bagherzadeh and Velayati's (2023) definition, our data were limited in the way in which participants engaged in this kind of crowdsourcing project. In their paper, when pursuing the collective production crowdsourcing goal, participants engaged in projects by individually posting ideas, integrating others' ideas with their ideas and commenting on others' ideas. In our data, these projects did not systematically require all forms of engagement, but we observed that the participants were involved merely and individually by submitting ideas (see verbatim 28).

4.2 | The Alignment Between Different Crowdsourcing Goals and Decision Making

From our data, project-level goal setting appears to relate to decision making across each stage of a crowdsourcing project. Specifically, we focused on the three identified crowdsourcing project goals set by managers to assess their alignment with decision-making processes. We thereby investigated how

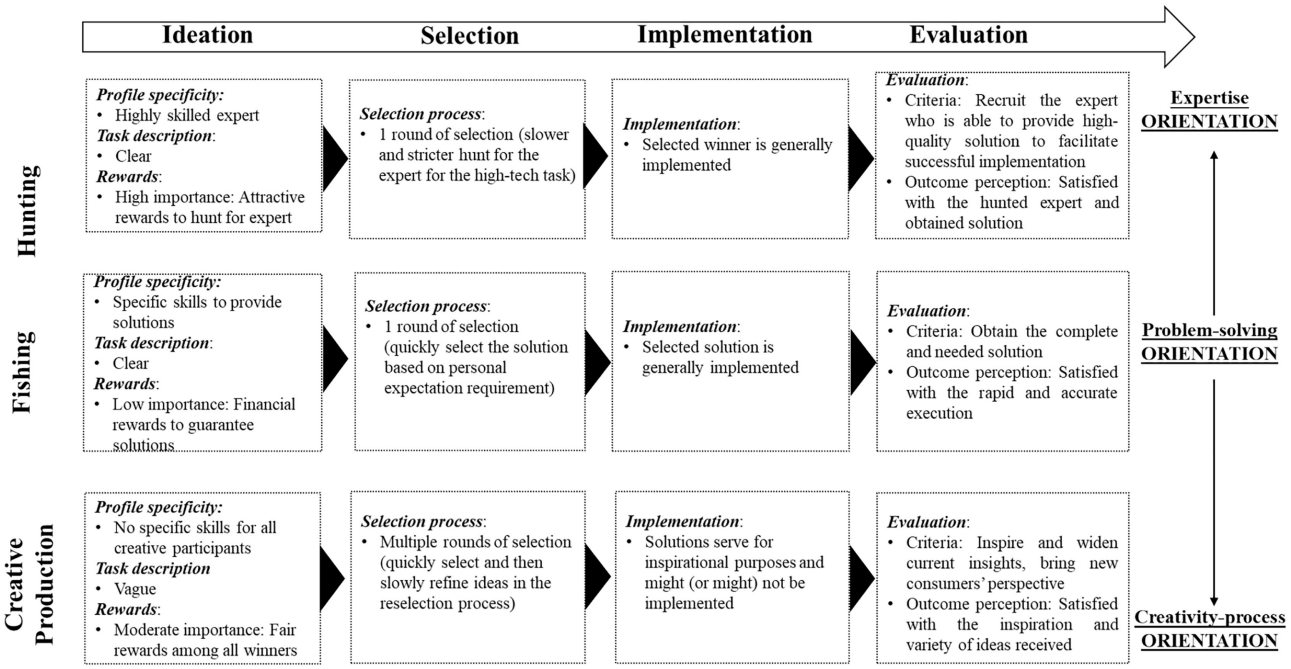

FIGURE 2 | Role of crowdsourcing goal setting in managerial decision making.

managers made decisions at each of the investigated crowdsourcing stages, namely ideation, selection and implementation (Steils and Hanine 2022). Our research revealed contrasting approaches taken by managers depending on the type of project goal that they pursued among the three presented in the previous section. Those findings are summarized in Figure 2.

First, managers pursuing a 'hunting' goal demonstrated a higher degree of concern about the quality of the crowdsourcing project output. Hence, their management of the crowdsourcing project prioritized hunting for experts to implement the qualified output (see verbatim 12). To achieve this, they tended to recruit highly skilled participants, providing them with clear information and attractive rewards (see verbatims 13 and 14). Therefore, there was high firm involvement in the early ideation stage. Furthermore, given the qualified output expectations initially set by the company, the selection process appeared to be more rigorous in setting the criteria for expert selection than for other goal pursuits (see verbatim 15). Then, the selected experts started to design solutions to be implemented (see verbatim 16). An emphasis on output quality and a more structured approach to project management were observed.

Second, managers pursuing a 'fishing' goal demonstrated a higher degree of concern about solving a 'low' technical problem and thus obtaining (many) solutions to a problem to ensure its implementation and thus problem solving (see verbatim 17). To achieve this, they tended first to collect as many solutions as possible from participants with specific skills who could accept a lower financial reward (see verbatim 19). They quickly selected their preferred solution and made streamlined revisions at the implementation stage (see verbatims 20 and 22). Given the initial solution output expectations set by the firm, the selection process appeared to be quicker and the implementation more feasible (see Figure 2). An emphasis on obtaining solution output and a relatively structured approach to project management were observed.

In contrast, managers aiming for a 'collective production goal' appeared to shift their focus from the solution output to the creative idea process within the crowdsourcing project (see verbatim 23). Their primary objective was to maximize creativity rather than output quality, with minimal attention to the ideation stage, which remained vague and less oriented. They prioritized the involvement of a larger number of participants and allocated fewer resources to idea generation (ideation stage), often providing minimal instructions, few required skills and fair hierarchical rewards (see verbatims 24, 25 and 26). Given the reduced initial firm expectations, more significant management effort was invested in the selection of ideas even if they tended to be less concerned about the subsequent implementation stage (see verbatims 27, 29 and 31).

4.3 | Perceived Impact on Crowdsourcing Outcome Satisfaction

The findings above provide insights into the conditions influencing the likelihood of implementing the crowdsourcing outcome in the market. Our data suggest that not implementing but just being inspired by ideas is more prevalent when managers prioritize 'collective production' goals, using crowdsourcing to gather creative collective insights. This contrasts with a management style focused on maximizing output implementation, as seen in an initial 'fishing' or 'hunting' goal-setting approach (see Figure 2). Although managers with all three crowdsourcing goals have different focuses across crowdsourcing stages, leading to an implementation or not of the solution, they all agreed that outcome satisfaction had been achieved when their decisions were consistent with their initial goal, whether it dealt with hunting an expert, fishing (receiving) a solution or being inspired by collective ideas (see verbatims 33, 35 and 36).

Table 4 provides more detailed evidence regarding how crowdsourcing project goals relate to decision making within each design element at each crowdsourcing stage, fostering crowdsourcing outcome satisfaction. In particular, different design elements were analysed as these appeared salient (i.e., spontaneously mentioned) in our data: profile specificity, task description and reward in the idea generation stage; the selection process in the idea selection stage; and the implementation process during the implementation stage; and finally the evaluation of final crowdsourcing outcomes. Then, the categorized data helped us to explore how managers made decisions about these elements in relation to the project goals.

We observed that, in the *idea generation stage*, when it comes to the crowdsourcing platform and when pursuing the 'hunting' crowdsourcing project goal, managers selected platforms through which they could have access to experts, for example IT programmers (see verbatims 12 and 13). When pursuing the 'fishing' goal, managers preferred platforms on which they could receive applicable solutions directly from participants with specific certain skills, for example logo design (see verbatim 17). However, when pursuing the goal of 'collective production', managers preferred platforms with creative participants and had no requirement for skills (see verbatim 23). The different choices could be connected to the fact that the hunting goal needs experts to be found on the platform first because the experts whom they seek must be able to solve the urgent and high-tech problems in the later implementation stage. When pursuing a fishing crowdsourcing goal and seeking solutions from participants in urgent yet not highly technical situations, there was no need for experts. As for the collective production goal, the aim was to collect creative ideas from participants, so there was no need to impose a requirement for skill.

When referring to the task description, pursuing hunting or fishing goals led managers to provide a clear framework of the task (see verbatims 13 and 18). When pursuing collective production goals, managers merely provided information about the values that the company wanted to communicate to consumers, without clear frameworks (see verbatims 24 and 25). This difference can be explained by the fact that the hunting and fishing crowdsourcing goals sought implementable solutions to the defined problem. However, collective production goals sought creative ideas for rather ill-defined problems. In terms of rewards, we observed that hunting goals generally set one winner. The amount of the reward is related to whether it is attractive for experts to take on the problem first (see verbatim 14). The fishing goal normally involved only one winner as well. However, the amount of the reward was set just to ensure that they could

TABLE 4 | Evidence for the relevance of the link between crowdsourcing goal setting and managerial decision making.

Stage	Design elements	Crowdsourcing goals and corresponding verbatim	
Idea generation	Profile specificity	Hunting	'We can find the masters on [crowdsourcing] platform. The masters will provide skillful operational solutions [...] the main problems can be solved in the short term by **calling on these masters**' (Verbatim 12: Interview 11, IN11).
		Fishing	'I could see these (logo design) solutions (that designers will submit on crowdsourcing platform) and select from them' (Verbatim 17: Interview 1, IN1).
		Collective production	'They [companies] were looking not just for ideas but ideas coming from lots of people (crowd) from all over the world ... telling them what consumers want ... They [companies] see the crowd as **a mix of creator and consumer**.' (Verbatim 23: Interview 16, IN16).
	Task description	Hunting	'We write a document that **describes clearly the function of the IT system we want** solvers to achieve' (Verbatim 13: Interview 13, IN13).
		Fishing	'**I would like to see** a police star or police badge somewhere on the (cover design) [...] to avoid the use of police tape, or blue/red police lights' (Verbatim 18: Extract from a brief from an online observation).
		Collective production	'Companies have **no clear framework** for what they want to do exactly' (Verbatim 24: Interview 16, IN16). 'Tell us an original, unique, and engaging story where people have a brilliant, memorable experience with a car' (Verbatim 25: Extract from a brief from an online observation).
	Reward	Hunting	'The cheap operators are not skilled. It is a rule of the trade to pay **at least** 5000–10,000 (**approx. 695–1388 euros**) **to an expert** to provide the solution' (Verbatim 14: Interview 11, IN11).
		Fishing	'About half or more of the employers (project managers) use the €73.5, €123.5 packages (launched by the platform). It can **guarantee 10 or 15 logo solutions by 3 or 5 designers** ... (project managers) **could see these logo designs** that are designed by designers' (Verbatim 19: Interview 02, IN02).
		Collective production	'Typically, the most common is **2500 euros for three winners** (for projects on the crowdsourcing platform) [...] some [crowdsourcing] contests are looking for more **diversity of ideas** and **want a lot of people** to play. So, it's better to have more prizes. Sometimes if the **prizes** are **higher**, there are **more winners**. We try to be **fair** with the creators.' (Verbatim 26: Interview 16, IN16).

(Continues)

TABLE 4 | (Continued)

Stage	Design elements	Crowdsourcing goals and corresponding verbatim	
Idea selection	Selection process	Hunting	'They select the solver mainly on the basis of the **programming language** that the solver master (programmer), the **project experience** ever had, the feasibility of the **technical proposal**, **quotation**, **project period** proposed by the solver' (Verbatim 15: Interview 12, IN12).
		Fishing	'The boss was **mostly pleased with the logo design** when selecting it (though) some details still need to be optimized' (Verbatim 20: Interview 04, IN04). 'I **immediately chose this logo design** from all submitted proposals and I think it is perfect for my shop' (Verbatim 21: Interview 03, IN03).
		Collective production	'They [managers] make decisions **quickly** to **select the winners within four weeks** [...]. In the **post-selection phase**, they gonna **refine ideas**, do consumer tests, talk to their R&D, have a workshop to go over these strategies' (Verbatim 27: Interview 16, IN16). 'In 4 weeks only we received **94 creative** ideas from 20 countries. Many entries revolved around the idea of a 'magic cocktail' or 'elixir of energy.' The best suggestions were tested with consumers' (Verbatim 28: online observation). 'We identified **17 winning concepts** and we could place these within **7 emerging themes**. We then took these **winning concepts and tested them** [...] We want to understand how these concepts performed among Australian consumers' (Verbatim 29: online observation).
Idea implementation	Implementation process	Hunting	'The staff of the marketing department provides a document which describes clearly what kind of function the information system (IS) should have. After **ensuring the solver's understanding** of the basic **framework** of IS is right, the solver starts developing the IS. The staff in the marketing sector checks the feasibility of the IS during the project period. Finally, this IS is **applied** by the company (to organize marketing data)' (Verbatim 16: Interview 15, IN15).
		Fishing	'The secretary sent the logo to the trade office for registration in case of infringement. After that, the **logo design** would be **delivered to** the long-term partner printer to **produce** the relevant **materials** (leaflets, product packaging) with the logo' (Verbatim 22, Interview 04, IN04).
		Collective production	'B [brand name] used the winning slogan and concept to nurture its 130-anniversary campaign [...] Their [creators'] work **inspired** the new positioning for the B brand' (Verbatim 30: online observation). 'The winning creator's concept **inspired** the agency for the development of a new TVC' (Verbatim 31: online observation). 'One idea from an Italian creator was **adapted** by C [brand name] and its agency into a series of ads' (Verbatim 32: online observation).

(Continues)

TABLE 4 | (Continued)

Stage	Design elements	Crowdsourcing goals and corresponding verbatim	
Evaluation process	Evaluate whether the outcome meets the expectation	Hunting	'After using the operation master's solution, **data optimization** was **successful**, leading to increased sales volume.' (Verbatim33: Interview 11, IN11).
		Fishing	'Great Design, **fast** changes. Exactly what I was looking for' (Verbatim34: online observation) 'Gave me the design I wanted and more' (Verbatim35: online observation). 'Excellent … professional, detailed and **clean design**. Love it' (Verbatim36: online observation)
		Collective production	'Thanks for all the great ideas & concepts. They will definitely **widen our scope** and help us build on the brand and get to that 'new Doritos' we are looking for. Great job!' (Verbatim 37: online observation) 'We would like to thank all the participants to this contest for your amazing and **inspiring** videos!' (Verbatim 38: online observation)

receive enough solutions from which to select one (see verbatim 19). The reason why managers considered reward amounts differently is that the hunting goal is for managers to seek potential experts actively while the fishing goal is to await participants to provide solutions actively. Different from the hunting and fishing project goals, the collective production goal tends to allow more than one winner, and the reward amount is distributed fairly based on hierarchical prizes to entice creative participants (see verbatim 26) because managers expect to collect passionate, diverse participants to generate creative ideas rather than a single implementable solution from one particular participant.

In the *selection stage*, a project with a 'hunting' or 'fishing' goal tends to select the expert or solution in one round while 'collective production' projects tend to have two or more rounds of the selection process and thus greater complexity in the selection process. This can be attributed to the observation that managers with hunting or fishing goals are clear about what kind of strict selection criteria they have to hunt for or what kind of implementable solution they want to select, especially in an urgent situation. Hence, the clear expectations allow them to apply the selection process in one round (see verbatims 15, 20 and 21). However, managers with collective production goals merely expect some innovative ideas from participants rather than anticipating well-developed implementable solutions. Hence, they do not emphasize the first round and select winners more quickly. Then, they start to focus on refining ideas, involving the creative community in the reselection process to ensure that they receive innovative ideas from creative consumers' viewpoint (see verbatims 27 and 29).

In the *implementation stage*, managers with 'hunting' and 'fishing' goals tend to focus on ensuring that the expert provides a solution to the high-tech problem and then implements it (see verbatim 15) or implements the selected solution (see verbatim 22). In contrast, managers with 'collective production' goals seldom implement crowdsourcing ideas (see verbatims 30, 31 and 32). The opposite consequence of the application of crowdsourcing ideas seems to be due to the observation that managers with hunting or fishing goals aim to use crowdsourcing to gain an implementable solution to counter high-urgency conditions. Hence, as long as managers obtain an implementable solution, they immediately implement it. However, managers with a collective production goal aim to collect innovative ideas rather than obtaining implementable solutions through crowdsourcing, choosing only to be inspired by crowdsourced ideas, without necessarily implementing them (see verbatims 30, 31 and 32).

Finally, in the *evaluation stage* of the crowdsourcing outcome, we identified the main criteria managers applied to evaluate their satisfaction with the crowdsourcing outcome(s) and how they perceived the outcome(s). We found that the main criteria managers with a 'hunting' goal applied were related to whether users provide a high-quality solution to facilitate successful implementation. For managers with a 'fishing' goal, they mainly sought to obtain the completed and needed solution. Finally, for managers with a 'collective production' goal, they evaluated the outcome mainly based on the extent to which they were inspired and the outcomes helped them to widen their current insights. They appreciated these creative ideas from a wide range of collective participants.

In conclusion, the data showed that no matter which crowdsourcing goals managers set in the beginning, consistent decision making during the crowdsourcing process led to the achievement of the expected crowdsourcing outcomes, which differed from one goal to another.

5 | Discussion

The goal of this research was to examine whether and how crowdsourcing project goals relate to project managers' decision making at each stage of the crowdsourcing process, in turn, affecting managers' outcome satisfaction. The choice of a crowdsourcing goal appears to translate into particular decision-making strategies adopted by managers in crowdsourcing projects, leading to consistent management styles and

managers' crowdsourcing satisfaction. This research sheds light on the divergent approaches that managers take when setting goals, which can affect their satisfaction toward crowdsourcing outcomes. In particular, we highlighted three main theoretical contributions.

First, our research addresses a significant gap in the crowdsourcing literature by analysing the relationship between 'why to crowdsource' (goals) and 'how to outsource', the subsequent decisions made during the crowdsourcing process (Nevo and Kotlarsky 2020). Prior research stream has examined either the goals or the process, but not how these two elements interact, particularly in terms of aligning project goals with decision making throughout the crowdsourcing process. To this literature, our findings provide a framework for understanding how the alignment between crowdsourcing goals and process decisions affects overall crowdsourcing outcomes and consistency in managerial decision making. Moreover, given that the existing literature has mainly focused on how to make decisions on individual design elements to affect the outcome of each stage of the crowdsourcing process (e.g., Acar 2018; Gillier et al. 2018; Lee et al. 2015; Li and Hu 2017;Pollok, Lüttgens and Piller 2019; Sieg, Wallin and Von Krogh 2010), we further contribute by adopting an integrative perspective on crowdsourcing process, as highlighted by Steils and Hanine (2022) and Troll, Blohm and Leimeister (2016), extending crowdsourcing management to the all crowdsourcing stages. More specifically, we provide perspective and guidance on consistent managerial decision making across stages of the crowdsourcing process rather than analysing how to make decisions regarding design elements for a single stage. For example, previous studies have recommended selecting the right crowdsourcing platform based on the diversity of experts (Colombo et al. 2013; Karachiwalla and Pinkow 2021), choosing design platform features, such as those with an online community (Ye and Jensen 2022), matching crowds to firms (Qi and Mao 2016) and revealing information (Lee et al. 2018). Past research has also recommended exploring optimal reward structures to increase participant engagement (Acar 2018; Ales, Cho and Körpeoğlu 2017; Terwiesch and Xu 2008) and to increase the quality of solutions and the number of participants (e.g., Lee et al. 2015; Li and Hu 2017). Other researchers have recommended formulating general and well-articulated problem statements to avoid affecting the quality and quantity of solutions (Pollok, Lüttgens and Piller 2019; Sieg, Wallin and Von Krogh 2010), choosing the appropriate composition of the jury to evaluate solutions (Afuah and Tucci 2012) and utilizing tools for evaluating crowdsourcing ideas (Blohm et al. 2018; Ghezzi et al. 2018; Terwiesch and Ulrich 2009; Westerski and Iglesias 2012). Our findings provide this literature with more nuanced and qualified recommendations in that the choice of such particular design elements, for example, problem statement or reward allocation, depends first and foremost on the identified upstream crowdsourcing project goals when deciding to crowdsource a particular task.

Second, the previous literature has mainly taken a firm-level perspective to formulate recommendations about how companies can develop routines, templates, or capabilities (e.g., Füller, Hutter and Kröger 2021). In this way, companies could run a series of consecutive crowdsourcing projects in a generalized way (e.g., Füller, Hutter and Kröger 2021). However, this approach neglects the specific goals that different crowdsourcing projects may have and how they relate to upcoming decisions across crowdsourcing project stages. Our study therefore contributes to the crowdsourcing literature by providing complementing information on how to manage crowdsourcing projects differently from the project-level perspective when involving customized crowdsourcing project goals, which subsequently affects different project outcomes. As a consequence, our study also answers Markovic et al.'s (2021) call by contributing to more project-level crowdsourcing research.

Third, we contribute to research that pinpointed a lack of managerial satisfaction regarding crowdsourcing initiatives (Dahlander and Piezunka 2020; Dahlander and Wallin 2020) by investigating missing alignment between initial crowdsourcing goals and related decision making at each stage of the crowdsourcing process as a potential source of problem and solution. In the prior open innovation literature, scholars highlighted the importance of matching open innovation approaches with appropriate solution search processes, assuming it might affect the efficiency of final outcomes (Felin and Zenger 2014; Gurca, Bagherzadeh and Velayati 2023). Our findings contribute to this literature by empirically examining the alignment between crowdsourcing goals and the crowdsourcing process. We thereby also follow up on research that identified negative perceptions of crowdsourcing among the crowd of consumers due to lacking proper management of crowdsourcing that contribute to confusion and negative feelings (Djelassi and Cambier 2023; Hanine and Steils 2019). Our findings suggest a blueprint for decision making that aligns with initially set crowdsourcing goals and thereby fosters management satisfaction and outcome consistency.

6 | Conclusion

6.1 | Theoretical Contributions

Our research makes a significant theoretical contribution to the understanding of open innovation by untangling the management challenges of crowdsourcing. We present a nuanced theoretical framework that integrates key constructs, elucidates their interrelationships and delineates the domain of effective crowdsourcing management.

We identify three primary constructs within the crowdsourcing paradigm: crowdsourcing goals, decision-making elements in the crowdsourcing process and crowdsourcing outcome satisfaction. Our findings empirically confirmed the existence of three crowdsourcing goals, which can be categorized into three distinct types: 'fishing', 'hunting' and 'collective production', as conceptually suggested by Gurca, Bagherzadeh and Velayati (2023). Each of these goals leverages specific decision-making elements throughout the crowdsourcing process, including profile specificity, task description, reward, selection process and implementation process.

Our research empirically reveals that these decision-making elements seem significantly influenced by the defined

crowdsourcing goals. For instance, 'hunting' requires more precise task descriptions and specific profiles to target niche expertise. In contrast, 'collective production' focuses on crafting general task descriptions and encouraging collaborative efforts, thereby generating more creative and novel ideas. This approach influences the implementation process to foster ongoing cooperation among participants.

Furthermore, while previous research has tended to analyse crowdsourcing goals, design elements and outcomes in isolation, our findings fill the gap by providing an integrative framework and exploring the interaction between these components. Especially, our findings show how the crowdsourcing goal interacts with decisions about design elements and affect crowdsourcing outcomes, which responds to a call by Nevo and Kotlarsky (2020).

Moreover, by adopting a project-level perspective, our findings show how the diversity in crowdsourcing project goals affect project management practices and consequent project outcomes, as supported by entrepreneurial research (e.g., Clegg and Shepherd 2007; Shenhar 2004). Our study provides an overarching frame to guide how to manage crowdsourcing projects process based on different crowdsourcing goals, contributing to shape expected project outcomes and thus extending the limitation of firm-level perspectives (e.g., Füller, Hutter and Kröger 2021).

Our findings reveal how the alignment between crowdsourcing goals and decision-making elements might help to shape satisfactory crowdsourcing outcomes. Results show that when crowdsourcing goals are aligned with appropriate decision-making strategies, managers tend to express a sense of satisfaction with the outcome(s). This alignment ensures that the crowdsourcing process is more likely to meet the specific needs and objectives of the project and thereby helps to alleviate the managerial challenges previously identified in the literature, such as limited value submissions and unresolved problems (Blohm et al. 2011; Karachiwalla and Pinkow 2021; Lifshitz-Assaf 2018). For example, our data show that projects with a 'collective production' goal, aligned with a collaborative decision-making process, tend to foster a great variety in idea submissions and greater managerial inspiration.

6.2 | Managerial Implications

Our study also provides practical guidance for managers looking to effectively implement crowdsourcing within their innovation projects, helping them make more informed decisions to align crowdsourcing goals with appropriate strategies, ensuring satisfactory outcomes. These insights should therefore allow managers to improve their crowdsourcing efforts from the outset.

When managing crowdsourcing projects, our findings highlight in particular the necessity to align the project's goal—whether it pursues 'fishing', 'hunting' or 'collective production' goals—with specific approaches in each phase of the crowdsourcing process.

For projects with a fishing goal, the ideation phase should involve choosing a platform with a large number of skilled participants who actively provide solutions. Setting a sufficiently low yet adequate reward can guarantee wide participation. More specifically, depending on the budget, the company can select a package provided by the platform that is not only within budget but also ensures that a certain number of skilled participants submit their solutions. Emphasizing inclusivity in task descriptions, the problem statement should be specific and clear in order to avoid misunderstandings about the task requirements. In the selection phase, a jury composed of internal employees who understand the company's needs can identify the most preferable solutions from the pool of submissions. During the implementation phase, once quick communication with participants yields the final needed solution, managers can streamline the implementation process.

For projects with a 'hunting' goal, the ideation phase should focus on selecting platforms that cater to participants with expertise relevant to the project. Offering higher rewards will attract experts who can provide higher-quality solutions. The problem statement should be defined precisely, in order to ensure that experts can apply their knowledge effectively to solve the specific issue at hand. In the selection phase, a jury of internal experts could be used to evaluate the technical merits of the solutions and select the most viable ones. During the implementation phase, managers need to first facilitate direct communication with participants in order to clarify any ambiguities. Then, it is important to check the project progress with participants until their solutions are tailored to meet the company's needs. In order to achieve this, managers could assign sufficient resources and establish a detailed project plan with clear milestones until the project's completion (Karachiwalla and Pinkow 2021), ensuring a smooth transition from ideation to implementation.

For projects with a 'collective production' goal, the ideation phase should involve opting for platforms that attract creative and collaborative participants rather than just experts. Offering multiple prizes and fair rewards will motivate a larger pool of creative contributors. The problem statement should be crafted generally, in order to allow for creativity and innovation, providing participants with the freedom to explore and propose novel ideas. Additionally, in order to motivate creative participants to generate more innovative ideas, managers could consider providing feedback during the ideation process (Namin, Dargahi and Rohm 2024). In the selection phase, managers should emphasize refining and iterating ideas by involving participants in workshops or second-round selections and interacting with the creative community to test and enhance concepts from diverse perspectives. Notably, given that the creative community is a mix of creators and consumers, involving consumers in the selection process needs to be carefully considered in line with their satisfaction with the selection outcome. Otherwise, they might be frustrated by the brand that organized the crowdsourcing contest (Gebauer, Füller and Pezzei 2013). After selecting the best ideas, the implementation phase should involve collaborating with agencies or internal teams to develop these ideas into implementable solutions, leveraging the creative input received from the crowdsourcing process.

Following those recommendations should help managers effectively align their crowdsourcing projects with their specific goals, therefore contributing to their high sense of satisfaction.

6.3 | Limitations and Further Research

Our research has some limitations. More specifically, our results show how different crowdsourcing goals relate to decisions on design elements throughout a crowdsourcing project. However, each element can have diverse characteristics, which we have not taken into account. For example, although financial rewards are a central extrinsic motivator, there are other incentives driving participants to attend crowdsourcing projects, such as internal motivations, including passion or personal achievement (Chen et al. 2021; Geiger and Schader 2014; Leimeister et al. 2009). Future research could explore how different crowdsourcing goals relate to the decision on task rewards when linked to participants' internal motivation.

Our research adopts a project-level perspective to investigate how to accomplish the expected crowdsourcing project outcomes according to the project goals. However, how to measure the performance of the project outcomes remains unclear and provides avenues for future research. Similarly, as the qualitative nature of our study shows limitations in terms of generalizability and observability, future researchers could conduct a quantitative investigation to compare the impact of design elements on achieving the expected crowdsourcing project outcomes, depending on each crowdsourcing goal.

Further, the past literature has examined the effect of cultural differences on project goals and related decision making during the project management process (Zwikael, Shimizu and Globerson 2005). Given that most of our interviewees come from China, future research could consider whether there are different project goals and related decision making throughout the project process when involving other cultural contexts.

Finally, while we take a project-level perspective in this research, the investigated alignment could probably also be extended to firm and individual perspectives. More specifically, future research could explore whether other types of alignment exist (e.g., with brand values) and, if so, how firms' strategy, dominant management logic, individual cognitive strategies and mindsets align with decision making in the crowdsourcing context. Also, future research could apply this project management approach to manage other open innovation formats, such as internal crowdsourcing.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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