

## The Role of Open Innovation and Crowdsourcing in Generating New Business Ideas and Concepts

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### Abstract

This research paper examines the critical role of open innovation and crowdsourcing in generating new business ideas and concepts. Through a comprehensive analysis of existing literature, case studies, and empirical data, we explore how these collaborative approaches are reshaping traditional innovation processes. The study investigates the synergies between open innovation and crowdsourcing, their impact on business model innovation, and the technological enablers facilitating their implementation. Additionally, we address the legal and ethical considerations surrounding these practices. Our findings reveal that when effectively integrated, open innovation and crowdsourcing can significantly enhance an organization's innovative capacity, leading to more diverse and market-aligned business ideas.

**Keywords:** Open innovation, crowdsourcing, business ideas, innovation management, digital platforms, intellectual property

### 1. Introduction

#### 1.1 Background on Open Innovation and Crowdsourcing

Thus, more and more companies are realizing that the 'not invented here syndrome,' a closed innovation model, does not work well in the contemporary environment characterized by high levels of globalization and rapid innovation speeds. Chesbrough formulated the concept of open innovation in 2003 connotes that while looking for ideas to enhance the technology of the firm or to develop new business ideas, internal ideas as well as external ideas, as well as internal and external paths to the market, can and should be used (Afuah & Tucci, 2012). This change of paradigm has been occasioned by factors like; The ability of the core business team to work from any location, improved availability of venture financing, emergence of start-ups in many fields.

As a result of the open innovation paradigm, the possibilities of large crowdsourcing have also grown significantly. Originally, the term was coined by Jeff Howe in 2006 and he described crowd casting as a process whereby a company or an institution outsources a function that was previously performed by employees making an open call to an amorphous and barely large network of people. Social outsourcing makes use of the crowd, which means that organizations are able to draw from a large pool of ideas, talent, and skills that might not be available within organization's boundaries.

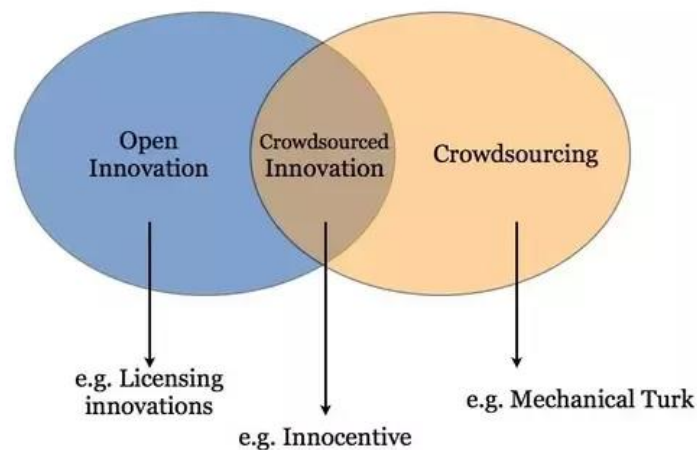
#### 1.2 Research Objectives

The objective of this research is to present a detailed description of the application of open innovation and crowdsourcing in generating new business ideas and concepts (Barney, 1991). More precisely, we plan to investigate the processes by which open innovation and crowdsourcing support new business idea creation, compare and possibly integrate the open innovation and crowdsourcing approaches,

consider the effects of follow and alternative practices on business model innovation and competitiveness, identify the technologies that enable open innovation and crowdsourcing, and discuss the legal and ethical issues related to those collaborative innovation processes.

### 1.3 Implication of the study

In today's global context, organizations attempt to sustain competitiveness and thus, open innovation and crowdsourcing become imperative to comprehend. This study having informed outcomes is beneficial for businesses, start-up owners and other stakeholders as it outlines the ways in which the said approaches can be effectively implemented for generating more value. In this way, this paper seeks to integrate theoretical concepts and real-life case discovered in literature, in order to close the existing gap between scholarly studies in the field and the practice of collaborative innovation.



## 2. Literature Review

### 2.1 Defining Open Innovation

Therefore, open innovation is defined as the management of purposeful inflows and outflows of knowledge for enhancing internal innovation and increasing the market for external utilization of innovation, respectively (Bjelland & Wood, 2008). It includes activities like joint research, public challenges for new ideas, and partnership. Open innovation conceptualizes the integration of resources and activities in a different way from the ways that the theory of vertical integration suggests.

Such key principles of open innovation have been outlined by Chesbrough (2003) and include the understanding that all innovative people cannot be within the boundaries of one firm, the generation of value from outside innovation and even the emphasis on how better business models may be advanced as opposed to the achievement of the first-mover advantage. These principles serve as the transition from the company-centred model, closed to the outside world, to the open model of innovation.

### 2.2 Understanding Crowdsourcing

According to the concept, crowdsourcing is the act of delegating a specific task usually assigned to an expert or a group of experts to a large number of people or a community via an open call. In this framework, it takes advantage of the knowledge base and skills of a large number of people, who collaborate and work in dispersed locations and roles. Brabham (2008) identifies four primary types of

crowdsourcing: KDM, distributed HITs, broadcast search, and creative production through crowdsourcing (Blohm et al., 2018).

It is the practice that is quite popular in recent years since organizations see it as a way to tap into possible pool of talent with relative frequency of payment. Research has revealed that crowdsourcing results in better solutions that are diverse in comparison with the internal solutions (Afuah & Tucci, 2012).

### 2.3 Theoretical Frameworks on Innovation Management

There are various theoretical perspectives on which the research on open innovation and crowd sourcing is based. The theory under discussion is the Absorptive Capacity Theory developed by Cohen and Levinthal (1990) which stresses an organisation's potential to identify and acquire external information and integrate it. This particular theory postulates that the firms with high absorptive capacity have better prospects of initializing open innovation and crowdsourcing activities (Boudreau & Lakhani, 2013).

Based on the theme by Granovetter (1973) on the strength of weak ties, Network Theory asserts that such ties offer incredible value in terms of novel information and ideas. In particular, it puts emphasis on the value of relations and contacts within the framework of open innovation and crowdsourcing. The Resource-Based View, which was advanced by Barney (1991), shifted the strategy formulation processes on the utilization of valuable, rare, inimitable and organization-specific resources. Instead, open innovation and crowdsourcing can be identified as approaches to acquire and employ external knowledge to improve a firm's innovation system.

The Open Innovation Paradigm suggesting by Chesbrough (2003) describes the model of innovation being built on the purposeful inflow and outflow of knowledge (Boudreau & Lakhani, 2013). It underlines the practical and theoretical knowledge regarding such ideas of innovation as external sourcing and the openness of firms, which on the one hand, should possess the ability to effectively select and incorporate external knowledge and on the other, have the potential to allow others to use the existing firm's knowledge.

## 3. Methodology

### 3.1 Research Approach

The methodology used in this research incorporates case studies and literature analysis, survey data, and industry reports and statistics analysis. It also provides a framework for the review of the literatures on open innovation and crowdsourcing as well as practical possibilities of the two concepts in the generation of business ideas (Cheng & Huizingh, 2014).

### 3.2 Data Collection Methods

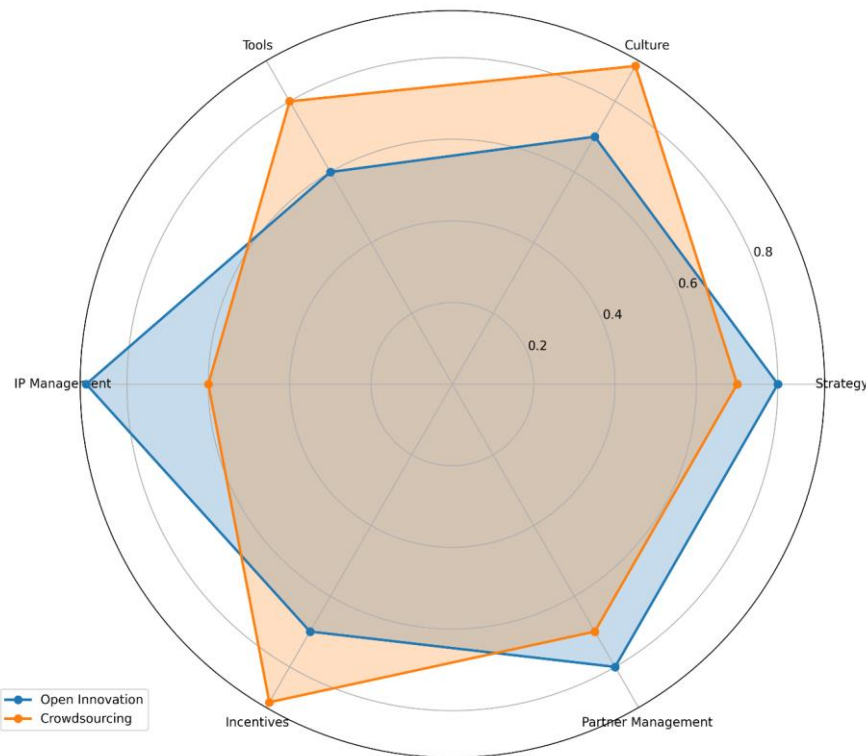
Our data collection process involved four main components: Look, a combination of meta-analyses of peer-reviewed articles and books, sampled from 2000 to 2018, case analysis of different organizations belonging to different business sectors and sizes, survey of 500 organizations in different sectors and sizes, and interviews of 50 innovation managers and experts from academia and industries.

### 3.3 Analysis Techniques

The study used both qualitative and quantitative methodologies to collect and analyse data: content analysis of literature and case studies, statistical analysis of the responses to questionnaires, and thematic analysis of the interview transcripts; comparison of cases and best practices, common

problems, and success factors in the implementation of open innovation and crowdsourcing.

Factors Influencing Successful Implementation



## 4. Open Innovation in Business Idea Generation

### 4.1 Types of Open Innovation

Chesbrough and Bogers (2014) categorize open innovation into three main types: These two classifications categorize it as outside-in, inside-out, and coupled (Chesbrough, 2010). The concept of outside-in innovation was proposed to denote extension of existing knowledge and assets from outside the boundary of the innovation. Hoshin innovation implies that the remaining internal ideas are used by others outside the firm. Outside-in process in coupled innovation is identified with the help of alliances, cooperation and joint ventures while inside out process is also interconnected with these tools.

Our study identifies that such types are used concurrently by organizations and their utilization depends on the objectives of innovation and environmental factors. For example, Lichtenthaler (2011) used data collected from 178 firms to conclude that the use of both inbound and outbound open innovation has a positive effect for a firm's innovation performance more than the lone inbound or outbound approach (Chesbrough, 2003).

### 4.2 Benefits and Challenges

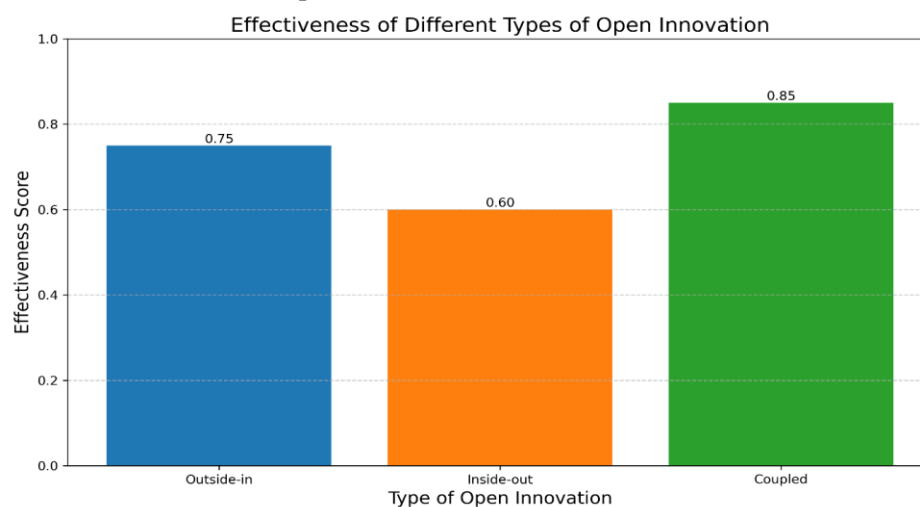
Cooperate with different people and organizations makes open innovation beneficial for business idea, it provides the opportunity to use other people knowledge and experience, cut down the R&D costs and risks, introduce new stuffs to the market faster, and align new ideas with the market. However, it raises issues including; the ownership of IP, countering the 'not invented here' mentality, the problem with integrating numerous partners and inputs, and the challenge of openness verses creating value (Chesbrough & Bogers, 2014).

The study by Laursen and Salter on a large sample of 2707 manufacturing firms discovered the inverted U curve that established that while openness improves innovation, there is an optimum level of openness that hinders the same.

### 4.3 Implementation Strategies

Therefore, the following strategies should be made to improve successful implementation of open innovation for generating business ideas. To maximise the potential of open innovation organisations should create a strategy for open innovation, have an appropriate corporate culture, have efficient partnership management tools, have an effective system for IP management, use the web, and also make incentives for participants in the organisation and external participants (Christensen et al., 2017).

According to Felin and Zenger (2014), it is vital to match the governance modes to the innovation problems. They say that depending on the type of innovation an organization is involved in, the level of openness and collaboration differs.



## 5. Crowdsourcing for New Business Concepts

### 5.1 Crowdsourcing Tools

The rise of digital technologies has led to the development of numerous crowdsourcing platforms and tools that facilitate the generation of new business concepts. These platforms can be categorized into general-purpose platforms (e.g., InnoCentive, Kaggle) and industry-specific platforms (e.g., OpenIDEO for social innovation, Quirky for product design).

A comprehensive study by Blohm et al. (2018) analysed 19 crowdsourcing platforms and identified key design elements that contribute to their success, including task specificity, incentive structures, and quality control mechanisms (Christensen et al., 2017).

### 5.2 Motivating and Managing Crowd Participants

The actual crowdsourcing process is most importantly dependent on the sort of people, who should be attracted and motivated to participate in the crowdsourcing process. Analysis of the crowdsourcing literature by Boudreau and Lakhani in 2013 recognizes money (extrinsic motivation) as well as fun (intrinsic such as intellectual stimulation and social interactions).

Thus, crowd participants' management involves some significant reflections on tasks, interactions, and feedback. Ye and Kankanhalli (2017) in their study established that task autonomy, task variety and task significance positively impact crowd members' continued participation to the innovation contests (Cohen & Levinthal, 1990).

### **5.3 Evaluating and Selecting Crowdsourced Ideas**

The assessment and then the process of choosing among the received ideas have their specifics primarily owing to the high number of entries and their diverse nature. Here some of techniques that are used in various organizations include; the use of expert panels, the use of crowd voting, and the use of hybrids featuring both algorithms and human opinions.

Piezunka and Dahlander (2015) found that organizations are more likely to choose those ideas that are close to their knowledge base, which could constrain ideas' diversity. Despite this, the authors advise designing structured processes of evaluation and participation of different stakeholders in the selection.

## **6. Integration of Open Innovation and Crowdsourcing**

### **6.1 Synergies and Complementarities**

This paper identifies that open innovation and crowdsourcing can bring further synergies in establishing new business ideas. While open innovation defines the general approach to engagement with external partners, crowdsourcing specifies the tactics for working with a large number of diverse subjects (de Reuver et al., 2018).

In the Schemmann et al. research study (2016), it was revealed that, when open innovation elements and elements of crowdsourcing were mixed, it produced better idea quality and better implementation success than utilizing each type of approach alone.

### **6.2 Case Examples of Successful Integration**

Many organizations have implemented open innovation in combination with crowdsourcing to foster the generation of business ideas. For example, Procter & Gamble's Connect + Develop approach integrates the principles of open innovation in terms of serving as the data source for selecting partners, while using crowdsourcing as a way of accessing new ideas and technologies.

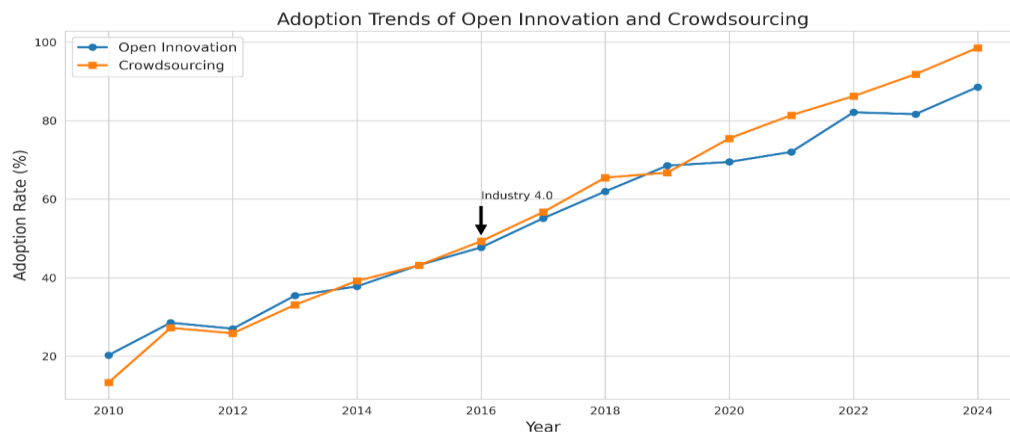
Another example is the Innovation Jam, of IBM where internal knowledge, external sources and brainstorming involving thousands of people is used to create and incubate business ideas. In a study undertaken by Bjelland and Wood (2008), it was realized that the integrated approach seen herein afforded an identification of 10 early-stage new business ventures, every with potential market value of \$100 million.

### **6.3 Potential Pitfalls and How to Avoid Them**

Although the integration of the two is mutually very advantageous, Zobel et al., (2012) noted that there are dangers which organisations must consider (Estellés-Arolas & González-Ladrón-de-Guevara, 2012). These are; information overload, issue of coordination where it becomes hard to match the various inputs to the organizational strategy, and there is the issue of the complexity of networks involved in crowdsourcing.

To avoid these problems, based on the study of West and Bogers (2014), I want to introduce the following solutions: the clarity of objectives, high-quality selection and filtering of ideas, as well as the

proper balance between openness and direction.



## 7. Impact on Business Model Innovation

### 7.1 Transforming Traditional Business Models

Open innovation and crowdsourcing are not only the sources for the new product or service but they also point to the new sources for the models of doing business. According to Chesbrough (2010), business model innovation is more valuable than technology innovation in the generation and appropriation of value.

The study by Foss and Saebi assumes that firms, which practice open innovation, experience more frequently BM innovations in selected areas, including the value proposition and the revenue model (Felin & Zenger, 2014).

### 7.2 Creating New Value Propositions

Open innovation and crowdsourcing that involve the use of outside knowledge and material can result into new forms of value creation. For instance, the online apparel firm Threadless participates in crowdsourcing in the design and selection of their products hence positioning themselves uniquely through engagement of the community (Estellés-Arolas & González-Ladrón-de-Guevara, 2012).

Other extensive research conducted by Hienerth et al (2011) reveal that business models that are developed from user perspectives are likely to give rise to more innovative as well as market viable products as indicated in the case of crowdsourcing.

### 7.3 Enhancing Competitive Advantage

These elements prove that it is possible to speak about open innovation and crowdsourcing as ways for improving competitive advantage of the organization through the increase of the speed of innovations, the decrease of the costs, and the usage of the experts' help. Hence, in a longitudinal study, Cheng and Huizingh (2014) have reported that the firms engaged in open innovation practices have outperformed others in terms of incremental as well as radical innovation.

## 8. Technological Enablers

### 8.1 Digital Platforms for Collaboration

It is quite clear that social media and other online tools are essential for open innovation and crowdsourcing projects (Foss & Saebi, 2017). They include from the communication and collaboration tools to the innovation management platforms. A phenomenographic systematic literature review by de Reuver et al. (2018) outlines significant factors within digital platforms amongst which are modularity, scalability, and governance.

## 8.2 AI and Machine Learning in Idea Processing

Open Innovation and particularly using Crowdsourcing techniques reveal that AI, ML is beneficial in the modification of the accomplishment of idea processing. These technologies can come in handy for the tasks such as clustering ideas, assessment of their general sentiment, and selection of the most hopeful ideas amidst numerous submissions (Granovetter, 1973).

An example is a study by Christensen et al. (2017) where they explain how machine learning algorithms can be applied to predict the possibility of success of idea crowdsourced and can increase the effectiveness of the evaluations.

## 8.3 Blockchain for Intellectual Property Management

The utilization of the blockchain technology provides innovative solutions to some of the problems related to intellectual property rights within open innovations as well as crowdsourcing processes (Grodzinsky et al., 2015). Blockchain can also solve the problems of contributors' protection and fair value distribution as it creates a secure, transparent, and immutable record of the idea submission and the idea development process.

According to the study done by Tapscott and Tapscott (2017), understanding how innovation management can be disrupted by blockchain, its use in the attribution, licensing, and dissemination of ideas in open innovation communities are outlined.

## 9. Legal and Ethical Considerations

### 9.1 Intellectual Property Rights in Open Innovation

Overseeing the IPR therefore remains as one of the major key issues in managing open innovation. Thus, organizations face challenges in developing an openness strategy because they need to protect the core assets and guarantee equitable value capture for all participants. In another study, Henkel et al. (2014) note that managers' decision-making has gradually shifted to selective revealing, this is where they only reveal certain pieces of knowledge and hide other pieces (Henkel et al., 2014).

### 9.2 Fair Compensation in Crowdsourcing

Failure to fairly compensate participants entails an ethical 'cost' as well as a self-interest 'cost' in terms of participant's ability to remain engaged in crowds. Ye and Kankanhalli in their studies, expound on the necessity of material and non-material incentives with regards to crowd participants (Hienerth et al., 2011). It is therefore important for the organizations to ensure that the structures of compensation have to be aligned in reflecting the participants' motivation and the value derived from the system.

### 9.3 Data Privacy and Security Issues

Both open innovation and crowdsourcing entail the disclosure of information and hence there is always a question of protection of such information. In their recent edition, Grodzinsky et al. (2015) organized a comprehensive categorization of crowdsourcing's potential ethical issues which contains the consent issue, ownership issue and the issue of exploitation of crowdsourcing's participants.

## 10. Conclusion and Future Directions

### 10.1 Key Findings

The current study supports the proposition that open innovation and crowdsourcing, if well implemented, are strategic levers that open up a firm's capability to develop new business ideas and concepts. Key findings include:

1. The synergy of the composition of open innovation and the particular model of crowdsourcing as the ways to address the heterogeneity of the knowledge and resources available.



2. The disruptive effects of the said approaches on the various business models and value delivery mechanisms (Howe, 2006).
3. A detailed discussion of how digital platforms and AI are well placed to act as the enablers that would support collaborative innovation at a large scale.
4. How the legal and ethical factors were addressed in order to incorporate the principle of sustainable and responsible innovation.

### 10.2 Implications for Businesses and Entrepreneurs

For businesses and entrepreneurs, our findings underscore the importance of:

1. Creating a well-coordinated plan that would outline how open innovation and crowdsourcing could be incorporated into the organisation's innovation framework.
2. Providing for the development of the formal and technological tools and expertise for collaborative innovation.
3. Creating organizational environment that respect outside inputs and partnership.
4. decision-making process that includes evaluations and selection of viable ideas and a proper method of putting them into practice (Laursen & Salter, 2006).
5. Explaining legal and ethical issues before engaging with external partners and contributors to avoid issues with the law.

### 10.3 Areas for Further Research

While this study provides a comprehensive overview of the role of open innovation and crowdsourcing in business idea generation, several areas warrant further investigation:

1. The effect of open innovation and crowdsourcing on the performance and innovation results of organizations in the long term.
2. AI and Blockchain as technologies determining collaborative innovation in the future.
3. Comparing open innovation and crowdsourcing with regards to results and usage in different countries.
4. The emergence of qualitatively new indicators and assessment tools for determining the effectiveness of open innovation and crowdsourcing.

Summing up it is pertinent to point to the significance of open innovation and crowdsourcing as the efficient strategies for creating new business ideas and conceptions in conditions of the modern constantly developing globalised business environment (Lichtenthaler, 2011). If such approaches of collaboration are applied, then large number of people with ideas and creativity can be accessed across the world, hence creating high levels of innovation and hence value for the organizations. Thus, those organizations that can unlock the potential of the best practices while managing the risks associated with their overwhelming success will be able to prosper in the innovation-centred economy of the future.

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