

The Effect of Virtual Stakeholders on Firms' Trend towards Social Innovation: A Case Study Based on the Spect-actor in Dramaturgical Theory

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Abstract: This study focuses on the creation of internet companies through IT enablement to examine whether firms with previous successful experiences can be enabled to once again create innovative concepts through new technological abilities and user participation experiences. When 104 Corporation was founded in 1996, it was Taiwan's first online job recruitment tool for firms and the first platform on which professionals could perform online job searches. Through IT enablement innovation, 104 continues to develop e-commerce-based solutions as an information platform. In this study, we use the 104's utilization of its inherent IT enablement to create a community interaction platform. Then, we introduce the concept of social innovation through the power of the masses into dramaturgical theory. The virtual stakeholders in the online children's art museum Cicisasa are performers and sharers of knowledge, operating through the enabling social engagement of children and parents, while the performers on the stage also interact with an information-absorbing audience.

Key words: IT enablement, virtual stakeholder, social innovation, dramaturgical theory, engagement.

1. Introduction

In facing the rapid transformation of technological and industrial environments, firms can apply information technology (IT) innovation to create economic value. The use of IT-based innovation to strengthen firms' inherent competitiveness and advantages is already an important trend [1].

Innovation has been defined as the design, invention, development, or transformation of products, services, processes, institutions, organizational structures, or business models by which companies create customer value and economic returns [2]. Innovation follows many pathways, but IT is a key driver in the internet age. The history of information technology is one of constant change punctuated by technological breakthroughs [3]. Information technology knowledge bases are used by firms to create maximum benefits and value [4]. This study discusses IT innovation in terms of IT enablement, which is an important tool for innovation. True value is created through innovation when firms use the social innovation forces created through social enablement to change the firm's commercial processes [5].

Social media have assumed unprecedented importance, changing the interactive relationships between individuals and companies and between societies and firms [6]. Whereas companies once needed to focus only on R&D, production, and sales, the virtual dialogue among virtual stakeholders in social networking services (SNS) hidden behind platforms is increasingly guiding the direction of firm development. Social

networking services have become an unbounded communication platform and have evolved to a stage where anyone with an opinion can become an actor. Virtual stakeholders are also becoming increasingly elusive, and innovation is accepted when their problems or demands are addressed. The concept of innovation can allow for participation by and collaboration with virtual stakeholders:

Children's paintings aren't like those of adults, in that there aren't museums for children's art. This is a shame; as we grow up, these paintings disappear, and so I have an idea: to create an online museum for children's paintings to allow all the world's children to put up their paintings at any time. In this way, in addition to preserving our paintings, we can also encourage other children to paint the world as they see it in their heart!" At the time, the 10-year old girl Qi Qi posted a crowdfunding activity on an9.com; and after three months of online funding, 217 netizens supported the activity, and she successfully raised TWD 150,000 with the intention of creating a children's art museum.

"We work with the internet, and of course we know that TWD 150,000 is not enough to create a proper website; after buying two servers, there is basically no more money. Although the crowdfunding for the children's art museum on Dream Cradle is finished, our Chairman Yang decided after some consideration that: OK! Since we work with the internet, we will finish this project straightaway, otherwise after the child raised TWD 150,000 and was unable to finish the project, she won't know who to ask for help in building her website." Chief Operating Officer Tian Juzheng recalled the words of Chairman Yang Jikuan, and so 104 called on its project development, web planning, and visual design personnel to form a volunteer team to help Qi Qi's dream become a reality.

Design is widely acknowledged as an important driver of innovation. One of these innovations is social innovation, the goal of which is to develop new ways of thinking and new solutions for projects in response to societal needs. The 104 Dream Cradle crowdfunding platform (an9.com) allows virtual stakeholders to share their ideas with the public before crowdfunding begins, using the platform's "referendum" tool to test levels of market acceptance. The case used for this study is that of a primary school student who used the crowdfunding platform to agglomerate communal power, taking advantage of community suggestions and assistance to create an online art museum for children (cicisasa.com). The platform not only provides a space for children to store their work but also allows parents and children to build relationships and pursue interactive learning through external network interactions via the process of painting preservation.

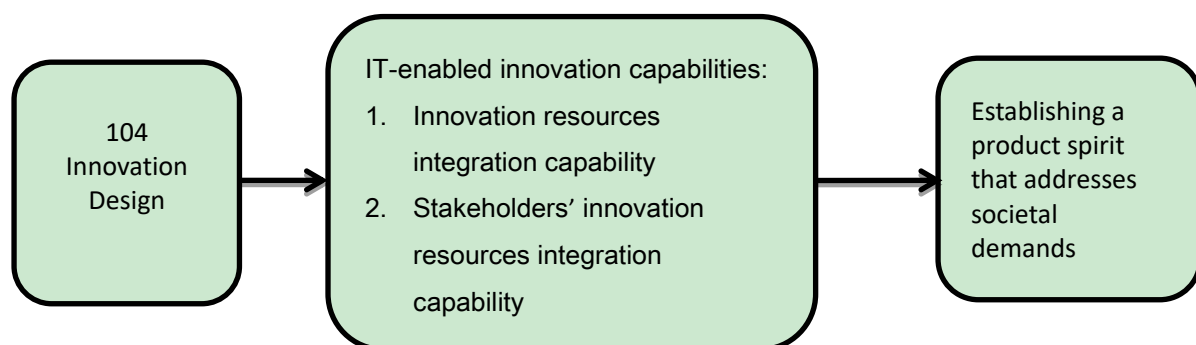


Fig. 1. Innovation process of case company.

This group of virtual stakeholders is changing corporate ecology, and the virtual world of the internet has changed the process under study by allowing users to communicate and cooperate in a variety of ways across the globe. Most SNS-based companies have begun to offer a user-centered design platform tool, allowing users to establish and assess scenarios, integrate innovative resources, and provide resources or

experiences to different stakeholders, thus reducing self-exploration costs [7].

Many companies are paying increasing attention to social responsibility, rather than maintaining a purely commercial orientation [6]. By using social media, stakeholders can communicate with companies' product designers, who can focus on linkages between social responsibility and innovation. This type of value co-creation business model cannot only improve the firm's positive image with regard to social innovation and corporate responsibility but can also reduce potential risks and costs [8].

Many firms use the internet to establish a space in which they can interact with the wider public, as 104 has done. In this space, the audience is raised to the level of actors, and these actors use social power to guide technological innovation. In this study, we explore how the company being examined met the demands of virtual stakeholders and value co-creation. We also introduce research on dramaturgical theory, analyze firms' use of inherent IT enablement, and discuss societal expectations and firm innovation as simultaneous drivers affecting active occupants of the stage. Finally, we present the contribution of our theoretical evidence based on our research experiences.

2. Literature Review

Most of the SNS research has deconstructed the conditions demonstrated by users as means of exploration. This study focuses on two key points: 1) the participation and cooperation of virtual stakeholders, and 2) the exploration of social innovation from the perspective of dramaturgical theory. We provide a theoretical framework for the alteration of corporate innovation through the power of the masses.

2.1. From Observer, to Participant, to User-Centered Product Concept Design (UCPCD) Value Co-creation

Traditional stakeholder theory targets specific related groups. These traditional theories focus on the relationship between firm development and stakeholders. According to [9], stakeholders are "any group or individual who can influence or be influenced by organizational objectives". Social networking services websites such as the social media platforms Facebook, Instagram, and WeChat allow many nonspecific stakeholders ("users") to become stakeholders who affect the organization; they have developed to allow communication to shift from unidirectional communication to bidirectional interactive communication [10]. By using an SNS platform, any individual can have a dialogue with an organization. In the original form of the internet, the public could use website technology and interactive logic to express ideas to the wider public, and the public was encouraged to contribute innovative thoughts. Virtual stakeholders represent a stage for self-expression, and this platform can become a sustainable stage for firms' value co-creation, which can cultivate virtual stakeholders into cooperating partners, cooperators, and loyal audiences of SSN platforms.

Concerning services for target customers, traditional firms focus on "an act or performance offered by one party to another... an economic activity that creates value and provides benefits for customers" [11]. This definition emphasizes the unidirectional needs of current customers, whereby they are only observers, and firms retain the content only of observer opinions or satisfaction levels. However, the emphasis of modern interactive SNS platforms on content value flows from the co-creation of the masses using the internet. For example, Facebook repeatedly co-creates content value through different groups. Under this framework, firms can evolve through the recommendations of user feedback and can also create new uses for their platform through the "self-initiated community activities" of users; they can also introduce new services and improve existing ones [12].

2.2. The Dramaturgical Perspective

In [13], Goffman compares a dramatic performance to a social interaction. Social networking services

websites are like a stage, on which organizational members and online virtual stakeholders are all performers and audience members; the created content and interactive comments constitute the performance. Goffman proposes that, insofar as daily life is a stage for presenting oneself in front of others, this presentation is a continuous and purposeful “performance” for an audience (others). In the “front stage” region are the devices used during the performance, and the “setting” includes performance props, stage devices, stage equipment, and other background props. In this context, the forums of SNS platforms are similar to the “front stage” region for user performances, and “self-initiated community activities” are the “setting” for this stage. Users employ these settings to help them participate on the stage and display themselves.

Virtual stakeholders use An9.com to publicize their ideas and raise funds from unspecified members of the public. By addressing the demands of virtual stakeholders, 104 established the Cicisasa platform. This platform allows for interaction through the paintings of children, whereby organizations and the online public are viewed as performers and audience members performing together on the same stage. Each performance element has a specific symbolic meaning, and “self-initiated community activities” provide users with a form of declared meaning while creating their identity; thus, in the transformation from an audience member into a protagonist, the distinction between the protagonist and the observer is clarified from the moment of participation [14].

Goffman believes that life is like a drama and that society is a stage. He uses the “front stage” and “back stage” concepts to illustrate the process of social interaction. In the interaction between the front stage and the audience, it is important not to neglect the backstage support workers. In the case of 104, for example, the product designers constantly provide tools and ideas for addressing the needs of customers in their interaction with designers. Dramatic performances are a type of exploration or a new technique for experimentation. Reference [15] refers to these self-initiated explorations and experiments as instances of “collective emergence.” He believes that these stage performances are self-initiated dialogues and emphasizes that these dramatic interactions serve as useful creative moments for designers and users [16]. We describe the components of SNS platforms in terms of Goffman’s dramaturgical theory below.

2.2.1. Setting

The term “setting” in dramaturgical theory refers to the front stage. We can view this as the platform or the service tools offered by the platform—for example, the tool for hanging children’s paintings offered by Cicisasa or the use of virtual reality (VR) to present an online art gallery. Settings such as those described above affect the interaction between service providers and spectators [17].

2.2.2. Actors or “spect-actors”

Actors in traditional dramaturgical theory are easily defined. In SNS platforms, however, any person, even product designers, can take the stage through content creation or comments. Among virtual stakeholders, the identities of actors and spectators can switch at any time. The actors in SNS platforms tend to be “spect-actors,” as coined by Augusto Boal in 1960. A spect-actor is a spectator who can intervene in the performance. Boal established an experimental theater in which spectators could interrupt the performance and make suggestions to actors on the stage. Actors then performed based on the suggestions offered by the spectators. Through the establishment of this platform space, the line between on-stage and off-stage and between actors and spectators is broken. A variety of voices can join the stage and experiment, creating diverse and democratic opportunities. An anti-traditional performance forces the ideas of the creator into the mind of the spectator [18]. A spect-actor is better able than a traditional actor to react to SNS platforms, which lack on-stage/off-stage distinctions and where the audience is no longer a silent group sitting off-stage.

2.2.3. Audience

Although spect-actors allow for the breakage of on-stage/off-stage distinctions, the “audience” still exists in traditional dramaturgical theory. Regardless of the social network, the role of the pure observer still exists. When an idea or community-initiated activity is sufficient to attract these observers, the transformation into spect-actor becomes easier.

2.2.4. Performance

Within the platform, any dynamic interaction, such as publishing or commenting, is referred to as “performance.” Dramaturgical theory specifies the setting, actors, audience, and performance process from an overall viewpoint and specifically presents the interactive relationships among these four factors [19], [20]. In the virtual world of the internet, the stage is located in a virtual environment controlled by the firm; although there is no way to make real face-to-face contact, [21] have proposed the concept of the “diffused audience,” whereby the audience chooses suitable media to serve as references and displays platforms according to their own experiences and lives, and from many media messages and images, in order to achieve an ideal visualization. They further use this type of imagery to perform for other observers, while also performing for themselves [21] (pp. 100-114).

3. Research Method

This study explores how firms meet the needs of virtual stakeholders and conform to the spirit of product innovation while meeting social needs. This study adopts an interpretive in-depth case study as the main research strategy, for several reasons. First, since our main research questions are exploratory “how” questions [22], the case study method is an appropriate research strategy. In this case study, we consider the product user needs of virtual stakeholders at the time of Cicisasa’s founding as our research background. We then use the interpretive method of the spect-actor and apply the concept of user-centered product concept design (UCPCD) to the user’s role.

We select the 104 Group mainly because they are the first Taiwanese e-commerce firm to address the issue of supply and demand for job seekers and companies seeking workers. From its founding on February 1, 1996, the firm put the idea of the “humanized job search service” into practice, thus introducing Taiwan’s human resources market into the e-commerce era. In February 2006, it was listed on the stock market as “104 Information Technology Co., Ltd.,” becoming Taiwan’s first listed internet company. In 2010, 104 began preparing for a transition, investing about 10% of its operating revenue annually in new product R&D, while founder Rocky Yang was also constantly analyzing workplace problems and possible solutions. As in that year, when he faced the career predicament out of which 104 was born, he now faces a new problem:

“There is currently a transition from an era of two-dimensional résumés to one of three dimensional résumés.” Rocky Yang believes that résumés used to be assessed based on the words of the individual writing them but that, in today’s SNS era, the value of each individual is made objective only through the assessment of the masses. Thus, by establishing interactive channels for workers and business owners on weekdays, workers’ hard work and effort can be made visible. Whenever a firm has a worker shortage or a worker is considering leaving, firms can immediately align to this change and realize significant savings in the recruitment or job search window periods. In other words, the future of job search “should be introduced to a scheduled model.”

Concerning 104’s transition plan, they introduced the crowdfunding website Dream Cradle: an9 in August 2013. In 2014, they targeted business executives with 104 Corporate Master: 104Pro. Viewing 104 as a heavyweight product, they introduced the career social networking site 104 Career Social Networking: 104 Plus and the site examined in this case study, Children’s Art: Cicisasa, created to respond to an9 user needs.

The design concept for second-generation job search banks is based on the development orientations of the cloud, mobility, openness, social attributes, and user experiences.

The content of this study is derived from face-to-face qualitative interviews, as well as relevant documents and data analysis. In-depth interviews were conducted with the Cicisasa operations director, the 104 Social Enterprise Department vice president, 104 new product development personnel, and users. Key interview content was recorded using a voice recorder. The analysis consisted of three major phases: description, analysis, and interpretation (making sense of meanings in context). The open coding technique of grounded theory [23], [24] was employed in the data analysis to identify, name, categorize, and describe the phenomena found in the data.

Through data inspection, design, and manipulation, we assess the unitary content derived from our analysis via dramaturgical theory in order to support the co-creation of value through virtual stakeholder participation and the ability of this value creation to affect firms' social innovation trends. In the next section, we analyze the empirical case of Cicisasa.

3.1. Dynamic Participation of the Spect-actor in Dramaturgical Theory

The application of dramaturgical theory in research on the user replacement concept has already garnered much approval [25]. The role of dramatic characters is dynamic under realistic or nearly realistic conditions. Even if their basic characteristics remain the same, dramatic personae will and must be able to develop, learn, and change. In [26], Boal states that any person is capable of performing and that dramatic performers should not be the only individuals in their professional field. The word "act" has a dual meaning: performance and action. This is also at the core of all theater work. "Spect-actor," a term coined by Boal, refers to those who are active relative to the average passive audience. For example, spect-actors can join the stage at any time and replace a penniless protagonist, who may then suddenly find great wealth; this theatrical direction is entirely up to the audience to determine.

Dramatic personae in realistic or nearly realistic environments must be dynamic; this allows their basic characteristics to be maintained, though characters must be able to study themselves during the performance, develop, and change at any time. This dynamic aspect covers the following:

- 1) Sticking close to the down-to-earth needs of the performed role
- 2) Willingness and ability to study the specific situations and backgrounds of other participants at any time
- 3) Timing the performance of roles, providing experiences for changes in script direction
- 4) Linking to the actor portraying the role [27]

If we say that the core products of 104 in their first-generation job search site were "people" (i.e., helping people to find jobs and helping jobs to find people), then the core of their second-generation product is to give a role to each person. In January 2014, an9 was formally launched, allowing observers to become actors. For example, a married couple in Taitung's Lijia tribe who run a guesthouse hope to build a reading and performance space for the tribe's children, while also improving the insufficient care and learning resources suffered by single parents and families with generations that are separated from one another. The couple posted this topic on an9, which generated interactive feedback. They not only succeeded in collecting the funds to repair their old house but also allowed a group of enthusiastic architecture students to volunteer to construct a library. The spect-actor concept is a type of dynamic interaction model: when the audience sees the efforts of actors on the stage, some will transform and join the ranks of performers.

The founding of Cicisasa allowed firms to join the ranks of spect-actors. A child used an9 to fundraise for an online art museum for children. Here, the founders of 104 were spectators; in addition to being roused by the performance of the child on the stage, they also joined the stage to help create the online children's art museum. At the same time, they asked employees in their company to volunteer in the effort, also

allowing external volunteers to observe the process occurring on the stage and to join in. Volunteer teams were divided into two main types: engineering volunteers and operations volunteers. Each type had responsibilities in the website construction plan, planning and design, website management, and operations. For example, the engineering volunteers would meet each Wednesday evening to discuss the project at a specified office. Furthermore, since this was a website for children, they tried to get some parents to bring their children in to participate. After the children used the site, they would talk with the operations volunteers; although these were just children, they sometimes raised good points. For example, a search function at the top of the website uses a “brush.” Whether using watercolor, crayon, or any other type of “brush,” a child said, “Uncle, this doesn’t work well.” The operations team asked, “Why doesn’t it work?” to which the child replied, “Now we have watercolor and crayon to paint with. Which one do I choose when I register?”

Of course, since they are a volunteer team, their management speed cannot be as quick as that of an average internal 104 product development team. Having to hold an SA meeting, a programming meeting, a planning meeting, then dispatching workers, and needing to complete the project within a two week deadline; in this way it may be impossible to work so urgently. (Chief Operating Officer Tian Juzheng)

Although they were passionate about the children’s dreams, however, the group of volunteers lacked a background in the arts. They often did not know how to interact academically with parents or how to integrate the social resources gained from social participation; the interactive feedback between the two groups was important for development, and the engineering team finally studied how two or three volunteer art professors interacted on the SNS platform (i.e., performance guidance).

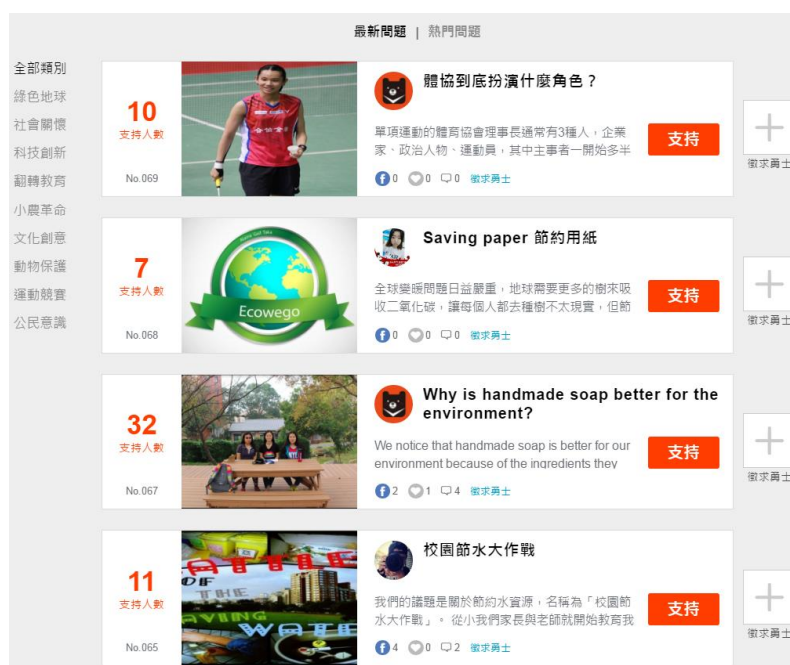


Fig. 2. an9 lacks pure observers; anyone can participate any time.

3.2. Dramaturgical Analysis of the Practice of Dynamic Participation

Using the concept of drama in research methods implies that any constructive or formative material must

be meaningful and sequential. For example, external spect-actors responding to social innovation comanage and operate the platform dynamically with the firm's managerial personnel by using the forum established by the company's IT enablement. They also confront unpredictable environmental changes together and provide additional external resources. Achieving social engagement and enacting social resources from the public is a type of mutually leveraged performance. Dramaturgical displays are a kind of practice and can be used to increase the application of user-centered resources gathered by researchers.

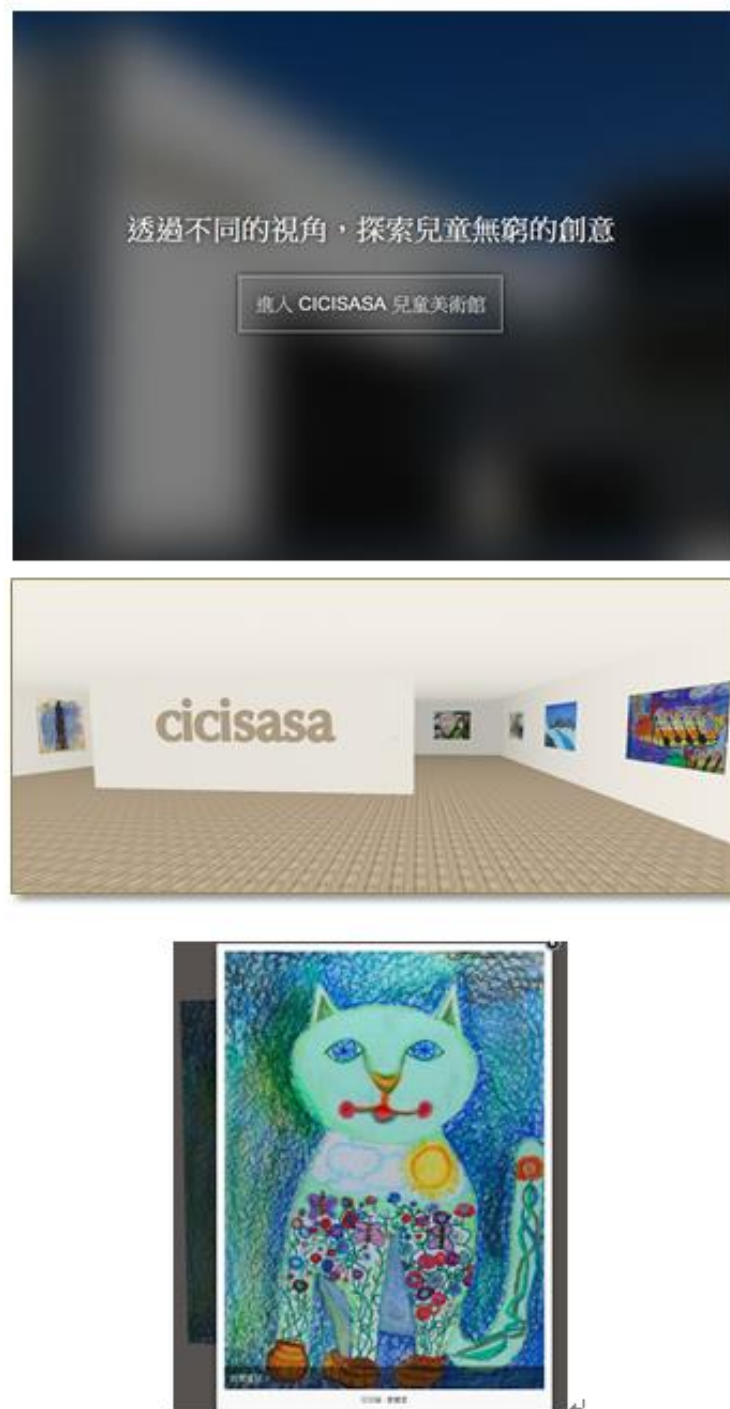


Fig. 3. Achieving social innovation with IT-enabled firms.

4. Conclusions

Through the design of this case study, we have come to understand the mechanisms of spectating and acting as used by virtual stakeholders, which support their correlation with firms' social innovation. This also helps us to create our theoretical model. This model implies that achieving social participation and the collection of social resources are both types of firm innovation. Firms hoping to innovate through social power can make a reference to this study. First, our study shows how the company in our case used the group participation of virtual stakeholders and a social innovation network to create a platform to address a societal need. The company also relied on the cooperation of social volunteers with various groups to comanage the activity, creating platform value and competitive advantages. Second, through manipulation, we have established a series of relevant mechanisms to emphasize the important functions of spect-actors in social innovation.

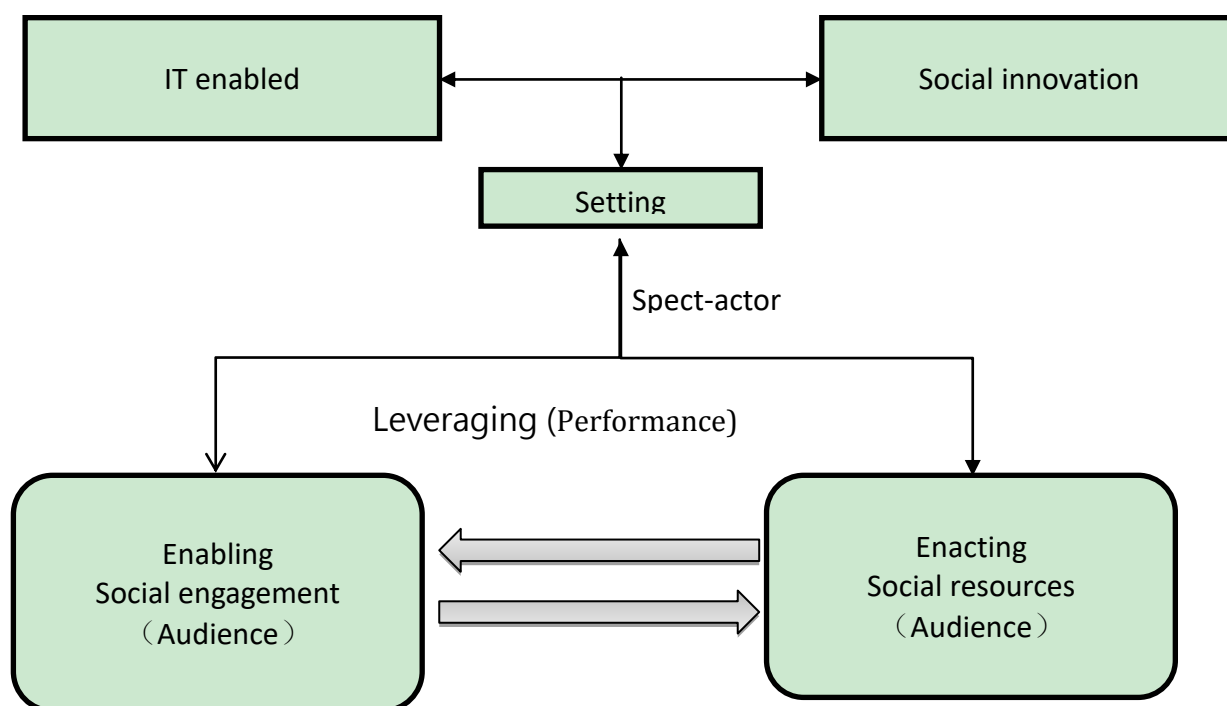


Fig. 4. Dynamic method of supporting social innovation through spect-actor participation and social resources.

The theoretical contributions and empirical findings generated by this case study can be used as a reference for firms considering investment in social innovation. This study has produced insights into how to link the participation environment of virtual stakeholders in social groups and how to use IT for innovation and achieve competitive advantages. The diversity of the internet may make the behavior of virtual stakeholders increasingly complex. We hope that, through the continuous accumulation of spect-actors' dynamic participation or role changes, it will be possible to determine the positive and negative factors of virtual stakeholders' effects on firm innovation and management. This could become an important area of research.

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