Formation of Digital Ecosystems and Hybrid Organizations

Posted on August 24, 2019

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Digital ecosystem models help in co-creating, capturing, and distributing value in businesses. They are based on and reorganize the ancient ecosystems, removing the limits of geographical proximities and providing tools for cross-system collaborations. Firms that have transformed to use digital systems enjoy comprehensive, rich knowledge and offer excellent solutions to their customers' needs. Structuring digital ecosystems has won immense attention from researchers due to its applicable strategic significance. Streaming has assisted many firms in gaining vital insights, more so in leveraging the IT/IS abilities to reconstruct business and technology ecosystems and other types of systems. Although the ecosystems can fail at times, they provide invaluable aid in running the businesses.

The diverse ecosystems have effects on the co-creating, capturing, and distributing of value in and outside digital ecosystems. This digital fusion with technological inventions changes the ecosystems and transforms the business landscapes. It is such an alignment that we will be reviewing in this paper, commonly referred to as a conglomeration of digital ecosystems. These ideas have been discussed in the article we are examining here in The Formation Process Towards Conglomeration of Digital Ecosystems: A Hybrid Organizing Perspective by Wenchi Ying and Suling Jia. The duo conducted a three-phase study to unveil the hybridization mechanisms of combining the traditional, emerging, and future strategies on IT/IS to bring a large and diverse ecosystem into action.

The analysis herein will comprise an introduction and then a critical review of the mentioned article above. Afterward, it will examine three articles referenced in the cited paper, which enrich the paper with related content. Also, it will review the literature to elucidate research gaps identified in this area. These gaps open opportunities for further research.

Keywords: Ecosystems, conglomeration, hybrid organizing,

Critical Review

The Scope Of The Article

Merging the traditional, emerging, and future issues in IT/IS in the business environment lays the foundation for Ying and Jia's work. They also focus on hybrid organization in a theoretical aspect. The

article conceptualizes aligning and combining the ecosystems, referring to conglomerations of digital ecosystems.

Business, Technology, And Digital Ecosystems

The business ecosystem emphasizes the efficiency and flexibility of the relevant sources to co-create a thriving economy. It is the central coordinator for the products and structures of ecosystems. The technology/industry ecosystem focuses on innovations and the external benefits of the sources and the products. It is the product platform that defines the relevant components and products in the business world. The digital ecosystems thrive on fusing the relations between business and industrial technologies from various resources. Ying and Jia, in their article, define digital conglomeration as the fusion between companies and industrial technologies from varied resources and IT/IS capabilities. They argue that it is a collective interlink between the stakeholders with shared interests in an interactive environment. The pair claims that conglomerating systems break the geographical proximity bounds and advocate for cross-system collaborations. Once the stakeholders have secured the collective activities, this gives an intelligent approach to alignment and ensures operations for a holistic ecosystem. Digital ecosystems are in line with single, multiple, and diverse ecosystems. Firms should deal with digital boundaries and compatibility challenges to make a distinct organization.

Hybrid Organization Towards Digital Ecosystems

A hybrid organization involves combining several organizational structures to improve the quality of services provided. However, not all elements in the organizational structures are compatible. Incompatibility may cause tension and strain in the hybrids in the process of combining mutually conflicting procedures and practices required by varied organizational forms in hybrid contexts. This involves coalescing regulatory aspects of the locus in innovating and creating new reforms like digital ecosystems combining diverse ecosystems. The primary research question in the article is: how do the core firms adopt hybrid-organizing approaches in the conglomeration of digital ecosystems?

Nevertheless, hybrid organizing comes with challenges due to the structural elements of numerous forms as diverse ecosystems that are incompatible. The adoption strategies need to address the internal and external forces caused by these hiccups of the structures. The duo consolidated the four policies of hybrid organizing from the research articles in existence. These are: (1) Dismissal refers to rejecting the elements or demands of organizational forms explicitly. (2) Separation refers to the compartmentalization of components or claims from varied organizational structures. (3) Cumulation relates to retention and linkage to different rudiments of organizational forms. (4) Creation refers to the formation of new idiosyncratic institutional orders.

Research Methodology

The authors used the case research method approach to carry out the study for three reasons. One, the mode of the research question is based on ‘how,’ which is best answered via the inductive method. The second one is that the study focuses on building new theoretical models; thus, the case study is more efficient due to its assertiveness in the exploration of new concepts. Lastly, the case study method works out very well for process-based analysis.

Data Collection

Ying and Jia collected data in two steps. First, they collected data from secondary sources and industry seminars. Collecting secondary data on adopting digital ecosystem concepts and the hybrid-organization perspective guided them in the subsequent on-site data collection and analysis. Secondly, they collected data from RCG’s headquarters and its factories via telephone interviews for nine months. They embraced the top-down interview procedure, where they gathered data from 25 interviewees. They recorded the interviews digitally and then transcribed them.

Case Study

The researchers studied the Red Collar Group (RCG), where they interviewed the executive management down to the subsidiary workers, totaling 25 informants. One interview lasted between 50 and 120 minutes, comprising customized questions. RCG has its headquarters in Qingdao Shandong, China, with about 3,000 staff members. It produces individualized and personalized suits, apparel, and accessories for the international market. RCG had embarked on a digital transformation and innovation journey for ten years before acquiring the necessary competencies in the digitally personalized production of suits. RCG came up with a novel digital platform and business model, which they termed the C2M model (Customer-to-manufactory). The model helped in integrating customers, sales, suppliers, designers, former competitors, and producers. The study’s focus question was: by far, RCG has conglomerated digital multi-win ecosystems, so how did they achieve this?

Findings

RCG built the digital infrastructures to exploit internal systems of personalization and customization of suits. This was achieved by integrating diversified stakeholders and related resources to minimize the complexities and costs of customization. They also delivered digital solutions for the exploration of consultation services to external stakeholders. This assisted in popularizing RCG as the role model of smart productions in China. Lastly, they leveraged the digital platform to conglomerate the internal and external stakeholders.

Additional References

References	Summary	Relevance
Yoo, Y., Lyytinen, K., and R. J. Boland. 2008. “Innovation in the digital era: Digitization and four classes of innovation networks,” *Hawaii International Conference on System Sciences*.	In this paper, Yoo, Lyytinen, and Boland (2008) address the digital product innovation networks. They argue that digitization gives ways to new horizons for analyzing, reshaping knowledge creation, and sharing innovations. They term it very relevant in that it (1) increases connections, thus reducing communication costs and increasing the scope, and (2) increases the speed and scope of digital convergence to raise network heterogeneity and integration. The article also discusses the effects of future innovations in research. Notably, it focuses on the emergence of anarchic networks that align with digital convergence. These are founded on rich innovation ontologies and epistemologies, thus advocating for a critical re-examination of the type and impacts of the conglomeration for innovation.	These developments stretch the innovation networks in existence to redistribute, control, and increase the demand for coordination across time and space. The article is also relevant in that it adds knowledge about ways to identify, share, and assimilate knowledge. It describes the five novel characteristics of digitalization and how they support the innovation network. Yoo et al. focus on the emergence of networks that are founded on rich ontologies. Yoo, Lyytinen, and Boland (2008) conducted their research just as Ying and Jia did, using a similar methodology. They used the case study method to collect the data from established companies that have taken time to digitalize.

Weill, P., and Woerner, SL. 2015. “Thriving in an increasingly digital ecosystem,” *MIT Sloan Management Review* (56:4), July, pp 27.	Weill and Woerner (2015), in their magazine, argue that firms should evaluate the threats and opportunities that face them amidst digital disruptions. According to the two, the world is digitalizing very fast to break the barriers to come up with new opportunities and destroy long-successful business models. Digitalization takes a considerable amount of time and may last longer than anticipated. Weill and Woerner are a strong basis for evaluating the threats and opportunities essential for starting a new business in the future that is connected to digital ecosystems. They also argue that digitalization gives opportunities for firms to influence customer relations and boost cross-sales.	Just like Ying and Jia’s work, Weill and Woerner argue that digitalization breaks down barriers, creates new openings and destroys long-successful business models. They additionally argue that the movement from value chains to ecosystems gives business decision-makers four business models. Each of the models is linked to capabilities and associations between the stakeholders. The firms can select to operate as (1) suppliers, (2) all-channels businesses, (3) producers, or (4) ecosystem drivers. The authors advocate for digitalization and the essence of value chains. The findings from the study show that those who focus narrowly on the value chains cannot compete with the ones that use broad business ecosystems. Weill and Woerner emphasize that a company undergoing conglomeration should make two main decisions, which are: (1) deciding the extent to which to control the value chains and (2) deciding how much is to be invested in knowing the end clients.

Jay, J. 2013. "Navigating paradox as a mechanism of change and innovation in hybrid organizations," *Academy of Management Journal* (56:1), February, pp 137–159.	Jay presents a paper that comes up with process models for solving some issues like definitions of success. The findings of the paper oscillate around logic and novel synthesis. He states that the capacities of hybrid organizing for inventions are dependent on the findings of the change processes. Jay agrees that hybrid organizing calls for the merging of several organizational structures. Combining diverse ecosystems is not always compatible.	Jay used Cambridge Energy Alliance (CEA) in the United States for the case study. He conducted a two-year study to understand sensemaking and organizational changes. He argues that hybrid organizations are complex entities that are affected by both internal and external stakeholders. Hybrid organizations help in engaging in systematic changes. Just like RCG took time to adopt the conglomeration, so did the company under the case study. Jay agrees that the business world is full of organizational paradoxes, which offer insights into the type of tension and how to manage it. In carrying out the research, Jay analyzed some companies that combined their organizational forms to form a central organization for innovation and the creation of digital ecosystems combined with diverse systems.

Literature Gaps

Although Ying and Jia achieved their objectives by presenting ideas on conglomeration and hybrid organizing, they left some issues unsolved. Human beings' interactions with computers should not overshadow the interactions with other aspects of production in a study. It is thus crucial that each research applies realistic settings with minimal hitches.

For instance, the use of the representative sample of 25 informants to represent the other 3000 staff is misrepresentative. It is impractical to generalize the findings to other large companies without conducting a more significant sampling. For quality research, at least 30 people give a better representation. Those embarking on future research must find out how and why managers interact with digitalization and hybrid organizing. The analysis should also incorporate the theoretical generalization approach for better findings. Since Ying and Jia are dealing with digitalization, they should have included some cognitive ideas in the models to assist in contextualizing the varied requirements in a better way.

Today, digital firms face disruptive technological progressions in innovating and creating new ideas. In the process of evolving to embrace the reforms, several challenges are met. Ying and Jia did not discuss this in depth to make the involved companies aware. Several challenges should be addressed in a study and in practice. They just mentioned one problem with hybrid organizations, which is the incompatibility of the organizational structures. They did not give a glimpse of the trends in technology and the visionary scenes.

Ying and Jia tend to have overlooked the fact that RCG walked the journey for ten years before achieving their goals in a conglomeration of digital systems. The duo did not explain to us why it took such a long route to attain this when there can be shorter ways. What these two authors did not tell us is that background and experience are critical factors in achieving the goals. Echoing Green brings out these aspects in an elaborate way in his article where he presents the research findings on hybrid organizing issues. The research sampled 700 responses to carry out a survey. He states that background and environment coerce one into the adoption of particular ways of thought and internalization of specific values dominating this specific environment.

Green also discusses how the educational background exposes an individual to particular content that he or she internalizes and takes the necessary actions. With work experience, he elaborates further by arguing that it creates hybrid social ventures rather than traditional nonprofit ones. Experience makes one incorporate the social enterprise into the business' errands. According to Lee and Battilana (2014), people who stay in one organization type for long become rigid in their ways of thinking regarding organizational possibilities.

Conclusion

It is evident that the diverse ecosystems have effects on the co-creating, capturing, and distributing of value in and outside digital ecosystems. Hybrid organization, in a theoretical aspect, conceptualizes aligning and combining the ecosystems, referring to conglomerations of digital ecosystems. The conglomeration involves the merging of ecosystems to come up with one. The mergeable ecosystems include the business, technological, and digital ecosystems. Firms should deal with digital boundaries and compatibility challenges to make a diverse organization. A hybrid organization involves combining several organizational structures to improve the quality of services provided. Conglomerating systems break the geographical proximity bounds and advocate for cross-system collaborations. Not all elements can be conglomerated into the structures of interest. Incompatibility is the source of tension and strain in hybrid organizing. Its challenges arise due to the structural factors in the diversified ecosystems. The strategies adopted in addressing these internal and external forces help in solving the challenges.

Ying and Jia, in their article, carried out a case study on Red Collar Group (RCG), where they carried out interviews using the top-down approach. Its headquarters is in Qingdao Shandong, China, with about 3000 staff members. It has taken RCG about ten years to acquire the needed competencies in

digitally personalized production of suits.