

# A Commentary Essay on Disruptive Innovation

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## Short Communication

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### ABSTRACT

This is a short comment on an article written by Si et al. in 2020. Start-ups in emerging economies are reshaping the economy. One of the approaches is disruptive technologies and innovations. The disruptive innovation theory, proposed and developed by Christensen over 20 years ago, has been widely discussed and applied. However, there are still serious misunderstandings and misusing of the concept and connotation of disruptive innovation, leading to a lot of confusion in research and practice. Si et al., elaborates and clarifies these concepts and provides an interesting discussion of disruptive innovation and entrepreneurship in emerging economics that could create promising research opportunities in the future.

### INTRODUCTION

In the past two decades, disruptive innovation has had a profound impact on enterprises, industries, and society, and aroused the research interest of management scholars. The world is undergoing a rapid economic shift as high technology firms in the long dominant economies of Europe and North America are increasingly being challenged by firms from emerging economies. Emerging economies are those low-income, high growth nations principally reliant on economic liberalization for their growth. This economic shift is such that today's emerging economy and their firms are predominantly driving the world economic development. Si et al., observes that a prediction by many innovation scholars is that by 2045 these high technology firms/entrepreneurial companies from emerging

economies could dominate the world economy through a variety of new technologies and innovation. Si et al., indicates that one of them is disruptive innovation technology/disruptive innovation based entrepreneurial companies [1].

Si et al., introduces that disruptive innovation theory was originally proposed by Christensen (1997) in his famous book "The Innovator's Dilemma". He initially described a concept of "disruptive technology", which mainly referred to the kinds of technology which were inferior to the main attributes existing among mainstream technology values but focused on some neglected attributes alternatively. And as the technologies improved over time, they came slowly to surpass the dominant technologies in specific markets. The concept of disruptive technology suggests that the winning technology would not necessarily be radical or superior technology. A dominant design is generated through a process of social, economic, and political negotiation and selection. Those companies who act first to adopt technologies that become dominant later usually survive and prosper, while those who refuse to adopt those technologies would be likely to fail [2]. Later, the concept of disruptive technology was extended into broader applications, such as disruptive product innovations and disruptive business model innovations. After comparison of disruptive innovation between matured and emerging economies, Si et al., indicates that, over the past years, despite the growing importance of disruptive innovation in emerging economies, academic research still focuses disproportionately on disruptive innovation in mature economies. But we know from the existing pool of research on disruptive innovation/entrepreneurial activities in emerging economies that there are unique differences in emerging economy firms [3]. Further say that the unique differences lead to a series of misunderstandings and misuses of disruptive innovation in the current research and practice.

In addition, Si et al., provides multi-level perspectives for studying disruptive innovation: individual level, firm level, and network/ecological level. Research at the individual level has focused on managers who make decisions, and their different attitudes towards disruptive innovation affect how they allocate resources. The attitude of managers is related to the perception of opportunities and experience [4]. Enterprise-level research is further divided into organization and process, market, and resources. Among them, the analysis from the market perspective explains why emerging markets are more uncertain and more suitable for developing disruptive innovation [5]. At the network and ecosystem level, the researchers believe that the realization of disruptive innovation needs to consider various internal and external factors, as well as the interactions among the various players in the ecosystem.

Si et al., reviews the articles on disruptive innovation published in SSCI journals from 1995 to 2019 and finds that the research methods and content have changed: from qualitative research to empirical research; Content has expanded from the earliest disruptive technologies to a wider range of areas, increasingly related to emerging technologies, new scenarios [6]. In addition, Si et al., introduced new findings. For example, Williamson et al., found three differences between developing and developed countries in terms of disruptive innovation through qualitative research on China. Kim et al., reported the impact of the interaction between national culture and regulatory system environment on disruptive innovation in emerging economies [7]. Chen et al., divided disruptive innovation into disruptive strategic innovation, disruptive technological innovation and disruptive business model innovation, and analyzed their characteristics respectively. Schmidt and Scaringella (2020) found that value-proposition innovation activities centered on new products and new channels completely mediated the relationship between dynamic capability and disruptive innovation. Tan et al., by tracing the trajectory of past public-private partnerships, showed that government departments can play multiple roles in guiding and building industry networks to generate new knowledge and disruptive innovation [8,9]. Mao et al., explained that enterprises responding to disruptive

business model innovation can respond to threats by rapidly developing a new business model. Wang et al., indicated the driving factors of disruptive innovation in emerging economies from the perspective of network through empirical research [10]. For example, relationship embedding has a positive impact on disruptive innovation of inter-firm networks in China, and enterprise knowledge network embedding has a positive impact on the disruptive innovation [11,12]. These existing studies show that disruptive innovation can be applied to new situations and contexts for further exploration.

## DISCUSSION

As for the definition of disruptive innovation, Si et al., suggests that researchers can develop the classification of disruptive innovation based on experience to promote the consistency of research [13]. Taxonomy is the science of classifying things in a hierarchical manner. It can compare the similarity of objects and sort them by creating a special classification [14]. Research in the field of innovation takes a taxonomic approach. For example, researchers developed classification of open innovation strategies through numerical classification analysis and created groups of similar cases and strategic knowledge [15]. Researchers used quantitative methods to classify different types of ecological innovations in specific environments, considering their different characteristics and dimensions. The method is then applied to a given sector and country to establish a classification of eco-innovation types [16]. It is feasible and meaningful to classify disruptive innovation based on existing research.

## CONCLUSION

As for the research on disruptive innovation in emerging economies, Si et al., indicates the neglected background and introduces possible research directions in detail. What are the differences between emerging and mature economies in terms of the conditions, processes, and consequences of disruptive innovation? In terms of conditions, what drives disruptive innovation? On the process side, what are the key factors influencing the level of disruptive innovation in emerging economies, such as the local cultural and institutional context? In terms of consequences, is the net impact of disruptive innovation on local communities positive or negative? Si et al., think that the balance of payments may be a factor worth watching when studying disruptive innovation in emerging economies. Future research should be based on the questions raised by Si et al., to find potential research directions and conduct a comprehensive investigation.

To sum up, Si et al., reviewed the theoretical development of disruptive innovation, sorted out the concepts from different theoretical perspectives, and discussed the applicability of the theories. In addition, the article introduced disruptive innovation at different levels and seven articles in the special issue and pointed out a series of issues worthy of research. The answers to these questions require further research into disruptive innovation and may spark interesting discussions in the innovation and entrepreneurship arena. In short, Si et al. This study provides a new idea for the research of disruptive innovation.

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