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Hypercompetition: the driving force behind successful business innovations? A critical review of literature

Abstract

In the study of business level competitive strategy, hypercompetition has often been linked to the generation and proliferation of business innovation. Despite the linkage between hypercompetition and business innovation as validated by previous studies, no singular study has focused on understanding the actual nature of this linkage or relationship. In other words, no study has focused on determining if hypercompetition is positively or negatively related to the success of business innovations. To fill this gap in literature, this study poses the fundamental question: are hypercompetitive forces the major factor which leads to the development of successful business innovations? To provide an answer to this question and to further stimulate the interest of researchers in the hypercompetition and innovation streams of research on this subject, this study analyzes the current implied perspective of existing literature in both streams of research by carrying out a critical review of 32 related studies representing both research streams. The authors find that while the position of majority of the literature reviewed is that hypercompetitive environments are positively related to the success of business innovations, a significant number of studies are of the opinion that this positive relationship is mediated by other forces within individual industry environments, and more interestingly, that the success of such business innovations are eventually diminished by virtue of the hypercompetitive nature of the industry.

Keywords: innovation, hypercompetition, competitive strategy.

JEL Classification: L1, L16, L21, L22, M10, M19.

Introduction

Irrespective of geographic location, a common trend across industries is an ever increasing level of competition. This is more so as the advent of globalization and the Internet has economically blurred and seamlessly melted national markets into one much larger market, leaving ambition and determination to be in most cases the only key factors standing between organizations and their access to the global market place. The result is the rising level of rivalry across industries – a phenomenon now known as hypercompetition (Schumpeter, 1950; D’Aveni, 1999; Wiggins & Ruefli, 2003). A lot of literature reveals that the development of successful innovations is perhaps the only way to stay ahead in these dynamic industries (Schumpeter, 1950; D’Aveni, 1999).

What then determines the success of innovations? In this paper, we review available literature on the determinants of innovation success confining the study however, to understanding the role of hypercompetition in the success of business innovations.

In this regard, the objective of this research paper is three-fold:

1. To understand the current general state of existing research on hypercompetition and innovation through a critical review of academic research articles.
2. To understand the current general state of existing research on the interplay between hypercompetition and the performance of innovations.

3. To understand the state of existing research on the relationship between hypercompetition and the success of innovations.

1. Hypercompetition and the imperative to innovate

A lot has been said about the phenomenon of hypercompetition in the preceding section of this paper, however in this section; we reiterate the fact that a lot of literature reveals that the development of successful innovations is perhaps the only way to stay ahead in these dynamic industries (Schumpeter, 1950; D’Aveni, 1999). However, in order to understand the role of hypercompetition in the success of innovations, we review available literature on the determinants of innovation success and note that one of the most prominent literature on this topic is the work of Van der Panne et al. (2003) in which they noted that firm, product, project and market related factors are the four main factors which affects the success of innovations. Within the boundaries of this research paper however, our focus is to understand the role of market related factors, in particular, the contributions of hypercompetitive market conditions on the success of innovative actions carried out by players within such markets since no previous study examining this crucial relationship exists (Van der Panne, 2003).

This research work thus contributes to the body of literature on the determinants of innovation success, by studying the impact of market related factors, most especially, the fierceness of competition, in this case hypercompetition; to the success of business innovations. In the next section, we present a concise description of the research methodology applied in trying to understand this phenomenon.

2. Methodology

The critical literature review method, although by itself not an actual research methodology; however contributes to existing bodies of knowledge through a critical qualitative and/or quantitative analysis and synthesis of previous research work carried out by other scholars and researchers in a particular academic domain (Hussey and Hussey, 1997; Marchant and Wiesner, 1999). In accordance with previous research of a similar nature, this paper adopts the critical literature review or research review method (Adam, Bessant and Phelps, 2006; Van der Panne et al., 2003; Biedenbach and Soderholm, 2008). Relevant research articles were retrieved from academic journals relevant to the core constructs and both qualitative and quantitative analyses were carried out on them.

Krathwohl (1998) extolled the qualities and benefits of using the qualitative research approach in the critical examination of processes and systems. This view is corroborated by the earlier work of Ghauri, Grunhaug and Kristianslund (1995) when they implied that the qualitative research approach was explorative, rational and interpretive, and best suited for systematically obtaining a clear understanding of different types of phenomena. Also the qualitative approach is appropriate for our current study due to the small nature of our study sample, comprised of 32 research articles; because according to Read (2000), the reliability of carrying out statistical analysis on small data samples are often very low.

Nevertheless, the articles under review will be subjected to quantitative analysis not in the sense of applying sophisticated and thorough statistical tools; but in the systematic and numeric processing of data into table, graphs and other similar tools necessary to provide the analytic process with some form of structure enabling comparability among sections as well as providing a visual representation of information (Hussey and Hussey, 1997).

The articles used in this research were retrieved from a comprehensive search of the following keywords 'hypercompetition', 'innovation', 'innovation-success', 'hypercompetition and innovation success'; from different management databases including EBSCO Business Complete, Proquest, Emerald, and ABIX. In accordance with previous research works of a similar nature, the articles were selected based on the following criteria: they must be peer-reviewed publications; focus on hypercompetitive environments and successful innovations, and must have been processed using 'qualitative and/or quantitative analysis' (Read, 2000).

2.1. Reliability. The critical review method is known to be very reliable, because it provides a concise

summary of existing empirical literature, and as such a different researcher conducting the same study under the same review methodology would arrive at similar conclusions (Hussey and Hussey, 1997; Read, 2000, p. 103)

2.2. Validity. The fact that the articles selected for this study were restricted to only peer-reviewed articles in addition to the selection criteria adopted; confers accuracy and validity on the results and conclusions arrived at with regard to the impact of hypercompetitive environments on the success of business innovations. This concurs with Dooley's (1984) definition of validity as the probability that a declaration or assertion is accurate.

2.3. Limitations. This paper's attempt to provide a generalizable conclusion with regard to the research objectives may be a limitation as industry specific examination and analysis may present deviations or exceptions to the general conclusions arrived at here. Also limitation of exclusion exists due to the fact that articles chosen for this research were sourced solely from journals indexed in specific electronic management databases. Thus, excluding existing articles relevant to the subject but not indexed in the databases.

2.4. Delimitations of the study. This study is conducted within the bounds of hypercompetition and business innovation solely in the business management context. Articles were strictly selected within this boundary, as we note that the concept of hypercompetition applies to the management, biological sciences and competitiveness of nations literature; while literature in innovation also exist in the national and non-management contexts.

3. Analysis and results

According to Read (2000, p. 103) and Hussey and Hussey (1997; p. 291) it is often impracticable to present the analysis and results of qualitative research separately; thus, in this section in accordance with previous researches of this nature, we present the results along with some analysis and discussion; providing more detailed discussion however, in the dedicated discussion section that follows.

Research objective 1: Current general state of research on the general position of literature on the interaction between hypercompetition and innovation as obtained through a critical review of academic research articles.

Table 1 below presents a summary of the individual articles which constitutes the data set analyzed in this study. To better obtain an accurate representation of the position of existing literature on the phenomenon, we have not placed any restrictions to the

age of literature materials, since no previous research examining the interaction between hyper-competitive environments and the success of innovations. Thus, the literature ranges from published, peer-reviewed articles from 1950 to 2010. The sample scope covered by individual articles range from case studies of single firms (Morris & Westbrook, 1996) to a study of 8,300 firms (Garcia & Lopez,

2009). In accordance with Read (2000), we consider studies which examined large number of organizations to be of more significance since the probability of generalizing such findings are relatively higher. About 96% of the sample data examined focused on new product or process innovation, while the rest focused on innovation adoption; both in relation to the degree of competition in the external environment.

Table 1. A summary of the sample data reviewed ($n = 32$)

No.	Author (s)	Objective	Study focus	Methods	Key findings
1.	Pacheco-de-Almeida (2008)	Examined the erosion of competitive advantage	CA literatures from 1975 to 2007	Theoretical & numerical analysis	HC leads to low performance of innovation & failure of innovation
2.	Chen, Lin & Michel (2009)	Examined the impact of HC on competitive behavior	1000 Taiwanese firms	Empirical	HC lowers the success rate of innovations
3.	Li & Simmerly, (2002)	Examined HC, capital structure & firm innovation	1990-1994 patent data from US firms	Empirical	HC affects the success or failure of innovations due to financial position
4.	Morris & Westbrook, (1996)	Examined technical innovations in the banking sector	Case study of a major UK bank	Case study analysis	HC reduces the expected outcome of an innovation
5.	Bewley, Forth & Robinson (2010)	To identify key drivers of business success & failure	BIS business support programs	Qualitative review of existing literature.	Competition promotes innovation
6.	Yoon & Lilien (1985)	Examined the determinants of industrial innovation performance	112 industrial innovations	A critical review of empirical literature	Market competition is positively related to sales performance of new products
7.	Lilien & Yoon (1989)	To understand the interaction between HC & innovation performance	The innovative products of 52 French firms	Qualitative review of literature	Competition-level is a major determinant of the performance of innovation
8.	Ozsomer et al. (1997)	Examines the determinants of organizational innovation	142 Fortune 500 manufacturing firms	Empirical	Innovation success depends on the strategic posture of individual firms
9.	Scherer (1967)	Interactions between industry concentration and successful innovations	US firms	Empirical	Positive relationship between industry concentration & innovation success
10.	Bozeman & Link (1983)	Examination of corporate investments in technology	Select US firms	Empirical	Degree of market concentration is correlated with innovation success
11.	Huiban & Bouhsnia (1998)	Interaction between innovation success and quality labor factor	French food industry	Empirical	Innovation success is proportional to degree of industry concentration
12.	Acs and Audretsch (1990)	Examination of innovation trends in small firms	Dutch manufacturing firms	Empirical	Highly concentrated markets inhibit innovation success
13.	Harris & Trainor (1995)	Interactions between innovation and R&D	Northern Ireland manufacturing firms	Empirical	HC limits innovation success
14.	Thong & Yap (1995)	Understanding technology adoption	SMEs	Theoretical	HC leads to innovation & spurs innovation success
15.	Malerba et al. (1997)	Examined the persistence of innovative activities	Large US multinationals	Empirical	No relationship between HC & innovation success
16.	Spanos (2009)	Developing a model of innovation adoption	SMEs	Theoretical	HC induces firms to consider adopting innovations
17.	Huber et al. (1993)	Examine innovation performance in HC markets	Case study of selected firms	Empirical	HC positively affects the success of innovations
18.	Covin & Slevin (1989)	Examined strategic activities of firms in hostile business environments	SMEs	Empirical	HC is positively related to the success of innovations
19.	Lawrence & Lorsch (1967)	Examining the differentiation and integration of innovation strategies of firms	Large multinational firms	Empirical	The qualities of dynamic environments are conducive for innovation success
20.	Hambrick (1981)	Examined the interplay between the environment, strategy and power in relation to innovation	Large multinational firms	Empirical	Under dynamic environments, firms are motivated to generate successful innovations
21.	Pierce & Delbecq (1977)	The relationship between organizational structure, individual attitudes & innovation	Elements necessary for innovation across US industries.	Empirical	Dynamic environments support innovation success
22.	Damanpour (1996)	Understanding organizational complexity and innovation	Data from published studies	Meta-analytical method	HC is positively related to innovation success
23.	Sharma (2006)	Examine the determinants of new product success or failure	32 new products across 18 Nepalese firms	Empirical	Highly competitive environments lead to innovation failure

Table 1 (cont.). A summary of the sample data reviewed (n = 32)

No.	Author (s)	Objective	Study focus	Methods	Key findings
24.	Garcia & Lopez (2009)	Exploring the determinants of abandoning innovative activities	8,300 Spanish firms between 2005-2007	Empirical	Intense competition leads to innovation failure in SMEs
25.	Gayle (2003)	Exploring the interplay between market concentration and innovation	4800 U.S. manufacturing firms patents over the period from 1965 to 1995	Empirical	Hypercompetitive industries stimulate innovation
26.	Lesa & Kova (2009)	The state of innovation in Slovakian SMEs	Slovakian SMEs	Empirical	HC leads to diminished innovation success
27.	Kamien & Schwartz (1976)	Explored the degree of rivalry necessary for maximum innovative activity	Firm level R&D innovation relationship	Empirical	Low innovation success is correlated to degree of competition
28.	Schumpeter (1950)	The explanation of capitalism, socialism and democracy	The role of innovation and the new dynamics of competition	Theoretical	HC is positively related to the success of innovations carried out in series
29.	D'Aveni (1999)	Exploring strategic supremacy through disruption	US firms across hypercompetitive industries	Theoretical	HC is correlated with the success of serial innovations
30.	Biedenbach & Soderholm (2008)	Explored organizational change in HC environments	Literature on HC and change management	Critical reviews of literature	HC is correlated to the success of innovations carried out in repertoires
31.	Wiggins & Ruefli (2005)	Explores the ability to maintain superior economic performance in HC industries	6,772 firms in 40 industries (1972-1997) & 13,899 firms (1980-1996)	Empirical analysis	HC favors the success of innovations carried out in series
32.	D'Aveni, Dagnino & Smith (2010)	The role of innovation in the age of temporary advantage	Review of literature concerned with HC	Theoretical	HC spurs the development of successful innovation

The individual articles in Table 1 above were retrieved from two broad research areas: competitive dynamics and innovation (see Figure 1). The competitive dynamics research area comprised of literature from three main research streams – hypercompetition, market concentration and environmental dynamics; while the innovation research consist of

literature from the innovation performance and innovation management research streams. All in all, literature from the competitive dynamics research area accounted for 84% of the overall sample data, while those from the innovation literature, made up the balance. The numbers shown in Figure 1 represents the individual articles as listed in Table 1.

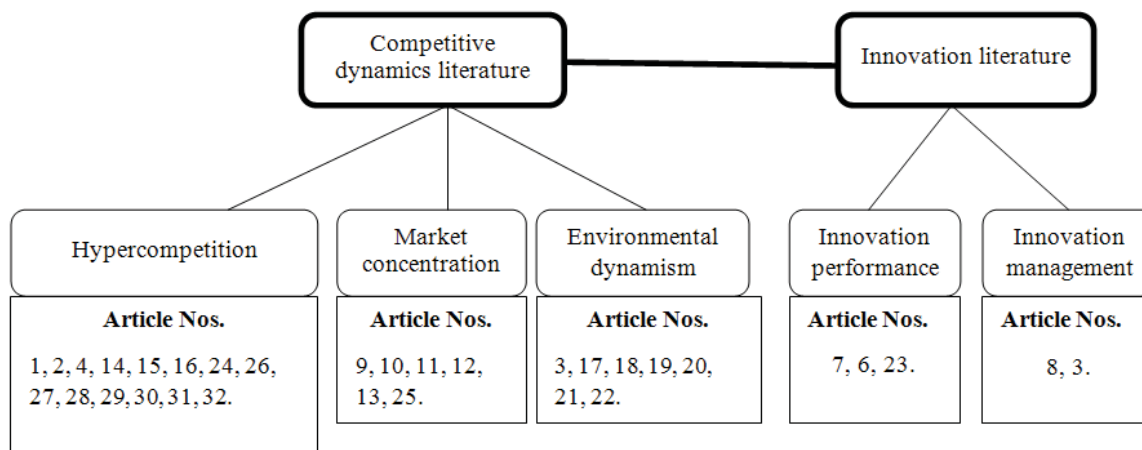


Fig. 1. Categorization of literature reviewed

Research objective 2: Current general state of research on the interplay between hypercompetition and the performance of innovations.

After a critical review of the literature focusing solely on the documented and observable interplay and interaction between hypercompetition and innovation performance in general; we arrive at 7 distinct outcomes, presented succinctly in Table 2. These outcomes range from the position that there is no relationship between hypercompetitive environments and the success of business innovations (research

outcome 3); to the position that a positive relationship exists between the degree of competition and the success of innovations (research outcome 5). Other outcomes include the existence of a partial relationship (research outcomes 1 & 4); a positive relationship between hypercompetition and innovation performance, occurrence or adoption (research outcomes 7 & 6) and a positive relationship between hypercompetition and innovation failure (research outcome 2). Table 2 presents a summary of the research outcomes; while Tables 3-9 present details of each outcome.

Table 2. A concise representation of the general position of existing research regarding the research objectives presented as research outcomes

	Summarized findings	Accompanying table
Research outcome 1	A positive relationship exists between hypercompetition and innovation success mediated by other factors	Table 3
Research outcome 2	Positive relationship between hypercompetition and innovation failure	Table 4
Research outcome 3	No relationship between level of competition and innovation success	Table 5
Research outcome 4	Positive relationship between hypercompetition and diminished innovation success	Table 6
Research outcome 5	Positive relationship between hypercompetition and innovation success	Table 7
Research outcome 6	Positive relationship between hypercompetition and innovation occurrence or adoption	Table 8
Research outcome 7	Positive relationship between hypercompetition and innovation performance (unspecified)	Table 9

Table 3. Research outcome 1: positive relationship between hypercompetition and innovation success mediated by other factors

Article No.	Author(s)	Summary of research findings
3.	Li & Simmerly (2002)	Hypercompetitive environments affects the success or failure of innovations depending on the financial position of individual firms
8.	Ozsomer et al. (1997)	Competitive environments lead to increased innovation, but innovation success depends on the strategic posture of individual firms
28.	Schumpeter (1950)	Hypercompetition is positively related to the success of a homogeneous or heterogeneous interconnected or disparate series of innovations introduced intermittently or sequentially
29.	D'Aveni (1999)	Hypercompetition is positively related to the success of serial innovations
30.	Biedenbach & Soderholm (2008)	Hypercompetition is directly related to the success of innovations carried out in repertoires
31.	Wiggins & Ruefli (2005)	Dynamic environments favor the success of innovations carried out in series
32.	D'Aveni, Dagnino & Smith (2010)	Hypercompetition spurs the development of successful innovation

Table 4. Research outcome 2: positive relationship between hypercompetition and innovation failure

Article No.	Author(s)	Summary of research findings
1.	Pacheco-de-Almeida (2008)	Hypercompetition leads to at least low performance of innovation and at most the failure of innovations
12.	Acs and Audretsch (1990)	Highly concentrated markets inhibit innovation success
23.	Sharma (2006)	Highly competitive environments lead to innovation failure
24.	Garcia & Lopez (2009)	Intense competition leads to innovation failure in SMEs

Table 5. Research outcome 3: no relationship between level of competition and innovation success

Article No.	Author(s)	Summary of research findings
15.	Malerba et al. (1997)	No relationship between the degree of market competition and innovation success

Table 6. Research outcome 4: positive relationship between hypercompetition and diminished innovation success

Article No.	Author(s)	Summary of research findings
1.	Pacheco-de-Almeida (2008)	Hypercompetition leads to at least low performance of innovation and at most the failure of innovations
2.	Chen, Lin & Michel (2009)	The more hypercompetitive an industry is, the lower the success rate of innovations within it
4.	Morris & Westbrook (1996)	The dynamic nature of competition reduces the expected outcome of an innovation
13.	Harris & Trainor (1995)	The success of innovative products are limited in hypercompetitive industries
26.	Lesa & Kova (2009)	Increased levels of competition leads to increased levels of innovation, but the success of innovation in those markets are diminished
27.	Kamien & Schwartz (1976)	Rate and success of innovation is positively related to degree of competitive rivalry, but imitation limits innovation success

Table 7. Research outcome 5: positive relationship between hypercompetition and innovation success

Article No.	Author (s)	Summary of research findings
5.	Bewley, Forth & Robinson (2010)	Competition is positively related to productivity and promotes innovation
9.	Scherer (1967)	Positive relationship between industry concentration and successful innovations
10.	Bozeman & Link (1983)	Degree of market concentration is positively related to the success of innovations
11.	Huiban & Bouhsnia (1998)	The success of innovation is directly proportional to the degree of industry concentration
14.	Thong & Yap (1995)	Highly competitive industries lead to high levels of innovation and spurs innovation success
17.	Huber et al. (1993)	Environmental dynamism positively affects the success of innovations
18.	Covin & Slevin (1989)	Competitively dynamic markets are positively related to the success of innovations
19.	Lawrence & Lorsch (1967)	The qualities of dynamic environments are conducive for successful innovations

Table 7 (cont.). Research outcome 5: positive relationship between hypercompetition and innovation success

Article No.	Author (s)	Summary of research findings
20.	Hambrick (1981)	Under dynamic environments, firms are more motivated to generate successful innovations
21.	Pierce & Delbecq (1977)	Dynamic environments support the development of successful innovations
22.	Damanpour (1996)	Environmental dynamism is positively related to innovation success

Table 8. Research outcome 6: positive relationship between hypercompetition and innovation occurrence or adoption

Article No.	Author(s)	Summary of research findings
16.	Spanos (2009)	Intense competition induces firms at the very least to consider the prospects of adopting innovations favored by rivals
25.	Gayle (2003)	Hypercompetitive industries, stimulate innovation

Table 9. Research outcome 7: Positive relationship between hypercompetition and innovation performance (unspecified)

Article No.	Author (s)	Summary of research findings
6.	Yoon & Lilien (1985)	Market competition is positively related to the sales performance of new products
7.	Lilien & Yoon (1989)	The degree of competition in a market is a major determinant of the performance of innovation

Research objective 3: The state of existing research on the relationship between hypercompetition and innovation success.

In this section, we present the major position of existing literature on the relationship between hypercompetition and innovation success; the major focus of this research work. We do so by critically analyzing and synthesizing data, thereby obtaining the number of all articles which are of the view that a relationship exists between the two (research outcome 5); and then comparing and contrasting it against the number of literature which hold a different view (Research outcomes 1, 2, 3, 4, 6 & 7). We find that 34% of the sample data are of the view that a positive relationship exists between the hyper-competitive nature of a business environment and the success of business innovations launched by industry players in their competitive interactions (Table 10; research outcome 5). This is in contrast

to the values of others which hold a different value: Research outcomes 1 (21%); 2 (12%); 3 (3%); 4 (18%); 6 (6%) and 7 (6%). From the above we conclude that the position of majority of literature is that a significant relationship exists between hypercompetition and successful business innovation. Table 10 presents a concise summary of the findings in number of articles as well as in percentages; while Figure 3 is a graphic representation of the same findings.

Table 10. Research outcomes by percentages

Research outcomes	Number of articles	Percentages
Research outcome 1	7	0.21875
Research outcome 2	4	0.125
Research outcome 3	1	0.03125
Research outcome 4	6	0.1875
Research outcome 5	11	0.34375
Research outcome 6	2	0.0625
Research outcome 7	2	0.0625

Graphical representation of research outcomes

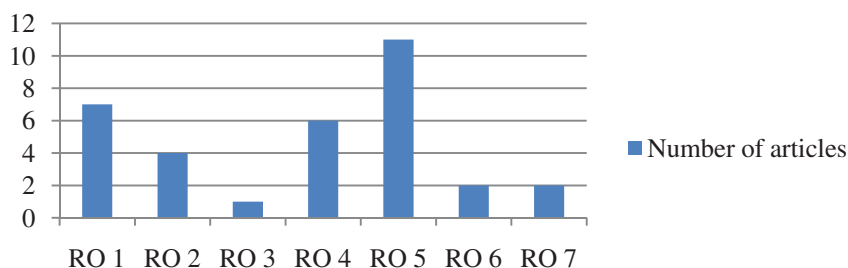


Fig. 2. Graphic representation of the research outcomes

Conclusion and recommendations for further research

Having observed the absence of literature focusing on understanding the role of business environments in the success of competitive actions, even though

these actions as well as the intensity of competitive rivalry is on the increase as mentioned earlier in this paper; we set out to understand the existing thinking and position of scholars and researchers on this phenomenon. To achieve this we retrieved and reviewed

32 articles and observed that the majority of researchers, imply from their individual findings that there is a significant relationship between the success of innovations carried out and intense competition within the market. However noting that although 34% observed for research outcome 5 (positive relationship between hypercompetition and innovation success) may be larger than the other research outcomes observed; yet the closeness of two of the research outcomes (research outcomes 1 (21%) and 4 (18%)) to this figure, shows that a significant number of researches are of the opinion that the success of business innovations within hypercompetitive industries are diminished by the competitive nature of such industries (e.g., Lesa & Kova, 2009) or are mediated by other factors within those industries (e.g., Li & Simmerly, 2002), yet other outcomes relate hypercompetition in an industry to the failure of business innovations, especially with regard to small and medium enterprises (e.g., Garcia

& Lopez, 2009). This disparity in findings may be related to the context of the studies carried out by the individual articles reviewed. However, irrespective of what the reason for the differences may be, the results from this research is a clear indicator that the time has come for more direct empirical studies focusing strictly on examining this phenomenon in specific industries as well as across a range of industries. As the bulk of literature point to the fact that the business environment of tomorrow will be characterized by fierce competitiveness, further empirical research will contribute to the teeming innovation management and performance literature on the determinants of successful business innovations in environments of intense competition. It will also contribute to the literature on hypercompetition as it will shed more light on the dynamics of strategizing for and executing a repertoire of competitive actions for the acquisition of the temporary advantages upon which survival in hypercompetitive markets depends.

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