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Instigators of New Innovation Ideas for Improving A Bank's Effective Market Performance in Times of Crisis

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ABSTRACT: Thriving in the increasingly more value-driven financial markets requires all banks to be as innovative as possible. However, as every bank engages in different forms of disruptive innovations to edge out each other, some banks tend to become lost completely on the new innovation ideas and trajectory that their innovation/innovative business activities must undertake. In contrast, others remain accurately focused with clear innovation ideas and discourses to pursue. To revolve such paradoxes, this paper offers accurate analysis of the sources or instigators of innovation that financial institutions can use to extract new innovation ideas that can be pursued to leverage their effective performance in periods of crises. Using a qualitative content analysis, the paper evaluates theories and literature on the instigators of innovation ideas as well as innovation management in the contemporary business organisations. Findings imply the major instigators or sources of new innovation ideas often arise from knowledge-push sources of innovation, need-pull sources of innovation, crisis-driven sources of innovation, users as innovators as well as learning and imitation as sources of innovation. Other instigators were found to arise from regulatory changes, the degree of industry or market saturation and competitors' actions. To respond to the challenges that some of the banks experience about discerning the new innovation ideas to pursue and turn around their performance during a crisis, the paper suggests the model for enhancing novel banking innovations for leveraging a bank's effective performance, competitiveness and sustainability during a crisis. Through such analysis and proposition, the paper contributes new insights that not only enrich the existing theories and literature on innovation management, but also new thinking that can be emulated by the contemporary businesses to bolster their innovation capabilities.

KEYWORDS: Business Sustainability; Innovation; Instigators of Innovation; Sources of Innovation; New Venture Creation; Competitiveness

INTRODUCTION

The global banking industry is increasingly getting characterized by different forms of disruptions. Such disruptions arise not only from the intensification of competition, but also natural disasters like Covid-19 or the political disruptions like Russia-Ukraine War that emerged from nowhere to affect the overall effective performance of the global economy (Rodríguez & Oconitrillo, 2022; Svitlana et al., 2022). That implies to survive, banking executives must be quite innovative to emerge with novel innovation ideas that reshape the banking terrain to their advantage. It requires banks to constantly be alert of the major changes as well as how to respond with novel insights that can turn around things to their advantages (World Bank Group, 2020; Sylkin et al., 2019).

In line with the Peter Drucker's axiom that "Innovate or Die" or Tidd and Bessant's (2021) ratiocination that opportunities are only maximized by those who are prepared, it is such insights that motivate this study to evaluate what instigates or does not instigate new innovation ideas for improving a bank's effective market performance in times of crisis.

Innovation is widely defined as the search, generation and translation of the selected best ideas into the tangible or intangible outcomes that create and deliver the desired values for an enterprise (Bogers, Bekkers & Granstrand, 2012; Gnyawali & Park, 2011; Schiavone & Simoni, 2011). However, the notion of innovation is not as simple as such. Innovation is not only an iterative back and forth process characterized by a series of failures and wastes. Instead it is also an evolutionary process of creating and delivering new values to bolster a firm's overall business sustainability.

Innovation is an evolutionary, revolutionary and counter-revolutionary processes instigated by the actions of one firm that seeks to advertently or inadvertently reshape the business terrain to its advantage. Successes of such innovations often prompt other

similar firms with similar technologies, knowledge and skills to also engage in the accomplishment of innovation activities in a way that enables them to create and offer better values than the pioneer industry operators or innovators (West & Bogers, 2013).

As the incumbents also retaliate with new innovation strategies, it instigates innovation war where it is only the fittest that survive. The implication is that as every bank engages in innovation to edge out each other, some banks tend to become lost completely on the new innovation ideas and trajectory that their innovation business activities must undertake. In contrast, others remain accurately focused with clear ideas and direction that their innovation discourses must undertake.

Even if this highlights the dynamics and complexities of innovation, it is not such a question that this paper seeks to address. Instead since most of the previous studies in the banking sector have not addressed or isolated the critical instigators or sources of innovation (West & Bogers, 2013; Bower & Christensen, 2010), this paper seeks to evaluate and isolate the critical instigators of new innovation ideas for improving a bank's effective market performance in times of crisis.

Through such analysis, the paper aims to highlight the sources or the instigators of new innovation ideas that the banking executives must explore when faced with the difficulties of accurately searching and identifying the potential innovation ideas that can be taken forward to bolster their overall business continuity and sustainability during times of crisis. To achieve that, the paper uses the qualitative-content analysis to evaluate different theories and literature on innovation management, in order to discern the instigators of new innovation ideas that the contemporary banking executives must be aware of.

METHODOLOGY

Methodology for the study entailed the use of qualitative-content analysis as the methodology for evaluating the factors that instigates the bank to innovate and develop new banking products/services as well as novel operation processes that can turn around its performance during times of crisis. To accomplish that, the entire literature search process was guided by the fundamental question that required the evaluation of what instigates or does not instigate new innovation ideas for improving a bank's effective market performance in times of crisis. The search process was guided by the use of keywords like "instigators of new innovation ideas", "influencers of banking innovations", "new banking products/services", "banking performance during crisis times", "bank management during crisis times", and "instigators of innovation ideas."

It was mainly Google Search Engine that was used in the search, analysis and extraction of different information from different theories and literature on innovation management in the banking sector. It also extended to the wider evaluation of the general theories and literature on innovation influencers during times of crisis. In that process, the search focused on asking and responding to the questions like what are the crisis or problems that often motivate not only banks but also other businesses to come up with new innovation ideas that can be converted into outcomes that can make them come out of the crisis.

From such analysis, twenty-three (23) peer-reviewed articles were extracted and subjected to thematic analysis. Thematic analysis focused on identifying, extracting and listing the kinds of crisis or problems that often motivate banks to engage in aggressive innovations in order to overcome such problems or crisis.

Subsequently, different narratives and texts that further elaborate each theme were extracted and used to construct a more systematic flow of information on how each crisis/problem influences banks to engage in different forms of innovations. These accompanied with the drawing of the insights and examples from the other industries that the banking executives can also learn from. Combined with the measures for improving credibility, dependability, transferability and conformability of the study as well as ethical considerations, the details of the findings are as evaluated below.

INSTIGATORS OF NEW INNOVATION IDEAS

From such analysis, findings revealed the instigators of innovation ideas that are pursued by most of the banking executives to often arise from knowledge-push sources of innovation, need-pull sources of innovation, crisis-driven sources of innovation, users as innovators as well as learning and imitation as sources of innovation (Tidd & Bessant, 2021; Drucker, 2002; Mehmet , 2019). As reflected in Figure 1, the other instigators were found to arise from regulatory changes as well as the degree of industry or market saturation that exists.

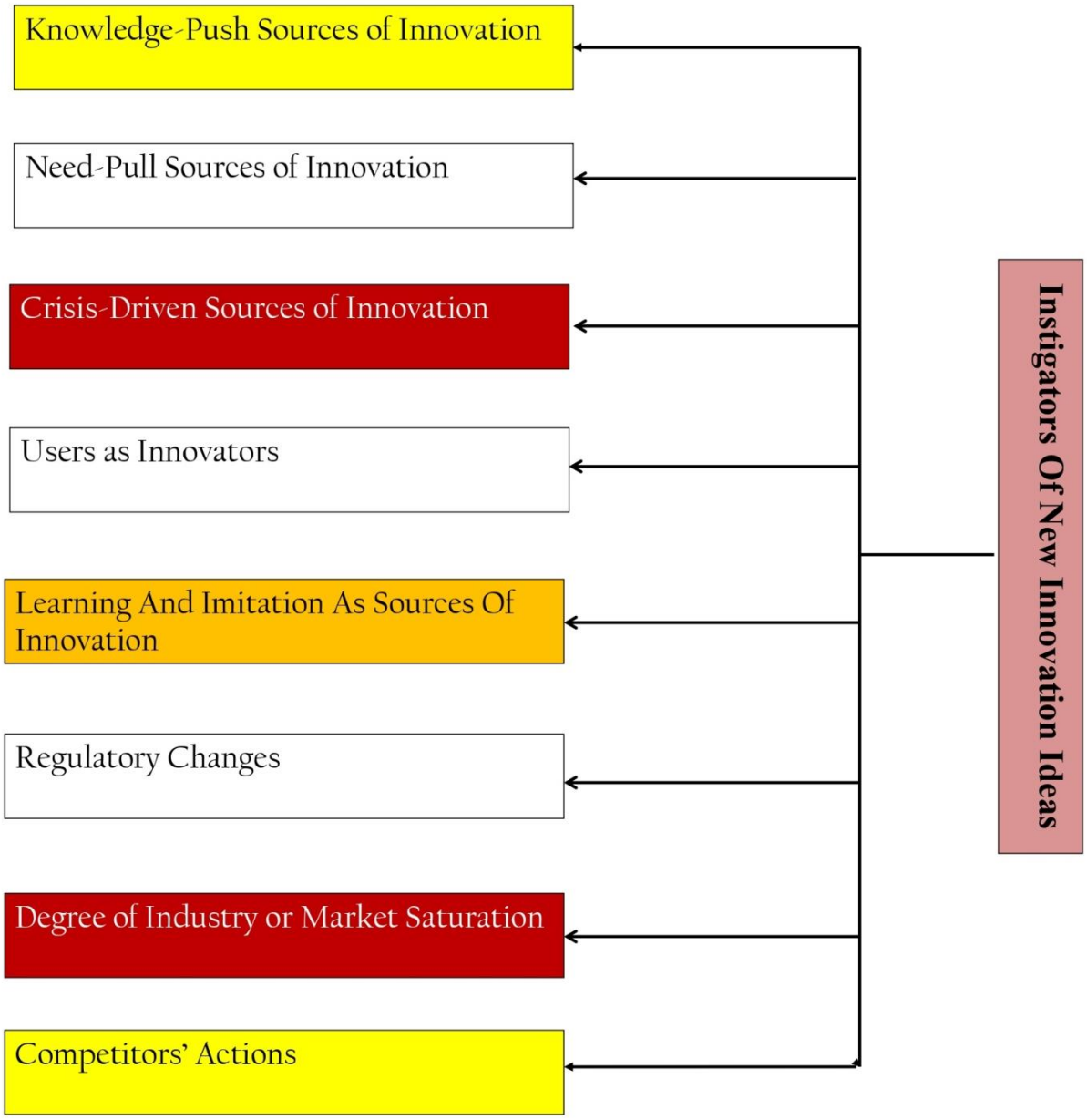

Figure 1: Themes Emerging from Critical Content Analysis of Theories and Literature on the Instigators of New Innovation Ideas In that context, details of these innovation instigators are evaluated as follows.

Knowledge-Push Sources of Innovation

Knowledge-push is the innovation which is instigated by the results of research and experimentation. Search research and experimentation can be social or scientific for the bank to discover new insights that it can use to create and deliver novel banking products/services that can bolster its overall competitiveness. However, before innovation ideas are subjected to research and experimentations, innovation ideas are often instigated by the experience that potential innovators had with their environments. Prior to Newton's research leading to conclusions about the law of gravity, the research, experimentation and development of the science of gravity was prompted by the apple that fell down as Newton slept under the apple tree. Likewise, Percy Shaw's assessment of the reflective cat's eyes led to research and innovation that developed the best-selling innovative road safety products in the world. Such insightful observations led to the development of some of the most disruptive products (Tidd & Bessant, 2021).

However, capabilities to spot such opportunities can only arise if entrepreneurs are insightful and imaginative through entrepreneurial education, natural entrepreneurial gifts/ability. Imagination can also improve if collaboration and networking between a group of like-minded entrepreneurs are used to spot and respond to new opportunities. With insights about potential innovation ideas, investment in research and development (R&D) becomes critical for undertaking experimentations that define and redefine the spotted innovation ideas. It is through such R&D that different new products are developed. R&D is not a once-

off endeavour, but a continuous exercise undertaken not only to develop the initial version of the product(s), but also to undertake continuous improvement of the existing products. Continuous modification enables the product to continuously be modified and improved to respond to new market needs in a way that surpasses their expectations.

The challenge often arises from the fact that investment of sufficient resources in R&D is often a challenge for most of the emerging entrepreneurs. Except for exceptionally gifted individual entrepreneurs like Facebook's Mark Zuckerberg, Google's Larry Page and Apple's Steve Jobs that were able to experiment in back-rooms, knowledge-push source of innovation requires investments in extensive R&D Laboratories typical of the ones developed by Bell Labs, Phillips, Western Electric, Ford and DuPont. Whether R&D experimentations are being undertaken by large entities or gifted individual entrepreneurs, a higher degree of collaborations and partnerships with different players is critical for improving the success of the knowledge-push source of innovation.

Higher collaboration with different entrepreneurs improves information sharing and exchange to enhance the insights on the new product which must be developed. It is through such an approach that R&D becomes successful to create new knowledge that brings to the fore, the potential new disruptive products that must be developed (Zook, 2010). Once the products are disruptive enough, it implies even the entrepreneurs can create successful new ventures that are founded on delighting superior quality products. This influences the overall improvement of the sustainability and growth of the entrepreneurial venture. Knowledge-push sources of innovation often begin with the R&D that breaks through the knowledge barriers to create new information about the new product (Mehmet, 2019).

From this new product, new leads often emerge through intense analysis and re-evaluation of the product to create new knowledge that can be utilised for continuous improvement. However, the application of knowledge-push innovation may require systematically committed entrepreneurs and staff as well as the required resources, facilities and resilience of the entrepreneurs to withstand and overcome all forms of shocks and failures.

Knowledge-push model of innovation is an iterative process of trial and error that goes forward and backwards until the product idea and the new venture concept is well defined and refined. It is the knowledge-push source of innovation that influenced the creation of innovation ventures like Tesla that sell electric cars, enterprises for medical scanners, microwave technologies and internet and digital imaging transistors. Innovation leading to the creation of new entrepreneurial ventures may also arise from need-pull sources of innovation.

Need-Pull Sources of Innovation

Need-pull sources of innovation refers to the innovation logic that holds that innovation leading to the creation of more successful innovation ventures often arise from the unfilled market need and demand. Proponents of need-pull sources of innovation hold that knowledge-push sources of innovation can lead to the development of new knowledge about new products, but still without the need that the new product will respond to, the newly created entrepreneurial venture may not be successful (Vrande et al., 2010). In that context, they argue that if innovation and new venture creation is not knowledge-push, it can be need-pulled. In need-pull, innovation ideas are is instigated by the gaps in the market that the existing industry operators are unable to effectively respond to and at times creates a niche.

Application of need-pull sources of innovation requires potential entrepreneurs to intensely evaluate the existing market conditions to identify what the customers require vis-à-vis what the existing industry operators are offering (Marczewska, 2023). It requires not only evaluation of the potential products being offered or not offered, but also a critical analysis of how the existing industry operators create and deliver such products to the final consumers. Evaluation of the product may enable spotting the products or features and attributes that are offered for the new entrepreneurial venture to create alternative new products that better respond to the identified market needs and gaps.

Evaluation of the existing process of product creation may aid modifications of the operational processes in terms of the quantity and quality of inputs used as well as the applied technology. This aids the spotting of insights that can lower operational costs to bolster the cost competitiveness of the new entrepreneurial venture. As Procter & Gamble ventured into the creation and sale of domestic lightings like candles, the increasing demand for other domestic products instigated the investment in the production of kitchen utensils, baby nappies, pampers, toothpaste and other essential housing appliances.

Likewise, most of the micro-finance institutions offering credit facilities to the poor and the emerging entrepreneurial ventures also arose from the failure of the established commercial banks to respond to the credit needs of the poor population segments and the emerging entrepreneurial ventures that are often considered as more risky. However, just like knowledge-push, need-pull innovation is also a continuous process that requires constant analysis and response to the constantly ever-changing market dynamics (Tidd & Bessant, 2021).

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As need-pull innovation introduces new products, knowledge-push innovation tends to come into play to evaluate aspects of the product that must be differentiated from the existing products. Likewise, customer needs and preferences are also constantly changing. This necessitates constant analysis and response to such changes using features and attributes that were previously not included in the existing products (Bower & Christensen, 2010). Frequent product modifications undertaken to enable the new entrepreneurial venture respond to the changes in customer tastes and preferences may not only necessitate the addition of new features and attributes, but also removal of some features to enable the product to respond to the areas where the market is dissatisfied with. Need-pull sources of innovation instigate the need for change. Compared to the complex knowledge-push, need-pull tends to be suitable for emerging entrepreneurial ventures as it is less costly to spot and respond to the shortage of products in a particular geographical area if the venture is not capable of creating one (Costa et al., 2023). However, if innovation is not driven by knowledge-push or need-pull sources of innovation, it can be driven by a crisis.

Crisis-driven Sources of Innovation

Crisis-driven sources of innovation refer to a product/service innovation idea instigated by the crisis which the economy is experiencing. A crisis is a sudden disruptive event that occurs to distort the overall normal way of life of the population (Tidd & Bessant, 2021; Drucker, 2002; Mehmet , 2019). Due to the suffering the population is facing, inclusive of the entrepreneurs in the economy, potential entrepreneurs or even those that have never engaged in any form of entrepreneurial activities are forced to come up out with innovative solutions to the problems created by the crisis. As new ideas emerge, potential entrepreneurs often take them up and refine them before emerging with better product concepts that not only solve the problems posed by the crisis, but also become part of the daily life problems' solutions.

Such situations where a crisis instigated and drove successful product innovation is reflected in the case of Lockheed's Burbank Factory in the United Kingdom. Lockheed's Burbank Factory was instructed during the Second World War to design and build a sound jet aircraft within six months. Even without previous aircraft manufacturing experience, Lockheed's Burbank Factory managed to build the aircraft that was very instrumental during the war. Its jet design was not only replicated later by the aircraft industry operators, but also its practice of creating the jet aircraft was also emulated by the manufacturers of military aircrafts and equipment (Tidd & Bessant, 2021).

Similarly, in the recent Covid-19 pandemic, crisis–driven innovation also became quite eminent as different entrepreneurs emerged with different versions of masks, oxygen cylinders and different medical equipment to respond to the crisis caused by the Covid-19 pandemic. Besides Covid-19 vaccines like Astra-Zeneca and Pfizer that emerged during Covid-19 and may turn become instrumental for fighting other forms of future viruses, the business crisis caused by Covid-19 also prompted most businesses to adopt different innovative online operational methods to enable their continued operations during the pandemic.

Crisis-driven innovation refers to the innovation model that prompts entrepreneurs to think and rethink to come up with different novel products/services that offer novel solutions to the problems posed by the crisis. Due to the eye-blindness problem which was becoming prevalent among the poor population living on $2 per day in India in the 1970s, Dr Govindappa Venkataswamy adopted the medical business model that reviewed and eliminated the unnecessary processes of eye-surgery operations to lower costs from $300 to just $25. This rendered it possible for the majority of the population facing impaired vision to undergo surgery. The model was adopted across the world. Crisis-driven innovation instigates entrepreneurs to engage in out-of-the-box thinking that aids application of frugal innovation which is the process of creating and offering simple products or services created from the necessity and lack of resources posed by the crisis situation. However, in such a process, Tidd and Bessant (2021) suggest that frugal innovation and the out-of-the-box thinking must be guided by certain six core principles that encompass:

- Simplification of the created product/service by not introducing more complex functions, but simple functions,
- Entrepreneurial focus on creating value and not overshooting to avoid wastes,
- Avoidance of the wheel's reinvention by adopting, adapting and recombining ideas from other sources to create new products/services,
- Lateral and horizontal thinking to aid collaboration with different stakeholders to improve the quality of the innovation ideas,
- Usage of platform thinking to emerge with simple frugal solutions, and
- Continuous improvement emphasizing evolution, learning and adoption of the best practices.

As undesirable extreme conditions also instigate entrepreneurs to ideate and emerge with different novel products/services offering novel solutions, innovation leading to the creation of successful entrepreneurial ventures can also be driven by users of different innovations.

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Users as Innovators

Product users are important contributors to the innovation ideas that generate other products. After the product is developed and sold to the market, it is the users or consumers that buy them and put them into practical use (West & Bogers, 2013). Compared to product producers, product users are the ones that use the product on a daily basis. Users have essential information about the product as to whether or not the product meets the different customer tastes and preferences. For emerging entrepreneurs or existing entrepreneurs that have run out of ideas on the new product to develop to support the growth and sustainability of their enterprise, users are the other sources of new innovation ideas that can be consulted through market surveys.

Market survey creates the conversation between the entrepreneurs and the customers to enable entrepreneurs to identify leads on the dimensions that the new innovation must undertake (West et al., 2014). Market survey can be a formal study involving usage of clearly defined questionnaires or rather more informal interactions with customers during their shopping exercises at Malls and trade centres. In addition, customer complaints can also be used as the method for gathering information about what customers are thinking about the product. It is through such approaches that entrepreneurs are able to accurately understand and develop ideas on the new products that must be developed to respond to the changes in customer needs (Yang & Li, 2019).

Subsequently, this bolsters the sustainability of the entrepreneurial venture. Due to the increasing recognition of the importance of users in new product development, most of the entrepreneurial ventures now have systems for engaging and collaborating with users during the process of ideation and new product development. In that process, users are consulted to comment and offer inputs on the product prototypes. This contributes to discerning the modifications that must be undertaken to improve the perfection of the product. Besides direct engagement with users through formal consultation processes, users are also consulted through online surveys (Zhang et al., 2018). The company's social media sites can also be used to provide prototypes of potential new products.

Prototypes can be developed and posted on social media sites for the public with interests to comment and offer insights on whether or not they like the potential product. This enables the entrepreneur to gather information about the product and invest in how the product must be tweaked to respond to the identified customer needs and preferences. Through usage of social media and company websites, entrepreneurs may also use crowdsourcing which is the direct method of soliciting insights from the general public about the potential new product that must be developed.

Crowdsourcing aids users' involvement to lower the cost of R&D as the general public offer accurate information and insights on what they would prefer or not prefer about the product. That implies usage of more efficient data analytics technologies such as big data is most likely to be important for processing larger amounts of data to reach accurate conclusions on the type of product that must be developed (Zhang et al., 2020). Such analysis is important for discerning the associated product features and attributes that must be created to respond to the issues raised by the customers during crowdsourcing. Users as innovators offer the foundational ideas that can be used by entrepreneurs to explore the kind of product that must be developed. Learning and imitation are the other sources of innovation for new venture creation.

Learning and Imitation as Sources of Innovation

Learning and imitation is a strategic process of seeking to understand how a product was developed by another entrepreneur so as to replicate the manufacturing process in the development of another product. Learning and imitation are critical sources of innovation. It applies to entrepreneurs that do not have the requisite knowledge to engage in the pioneer development of the products of their own. Although learning and imitation require the imitating entrepreneurs to have higher knowledge and technologies to accomplish the learning and imitation process, it is often the thought process that entrepreneurs that engage in learning and imitation tend to be even more talented as compared to the original creators of the product.

Learning and imitation is a commonly used innovation idea generation strategy in China on the basis that Chinese economy is construed to be an economy built on learning and imitation. As Samsung entered the electronics and smartphone production market, its entrance was mainly based on learning and imitating other competitors' products. Samsung commenced by largely replicating Apple's touchscreen smartphones before transitioning to innovate its own type of smartphones (Jae-Won, 2013).

Though learning and imitation is the source of innovation ideas, it is should not be a continuous endeavour. It can be used to understand the product for the emerging entrepreneurial venture to create and offer the product of its own. Following Samsung's accurate understanding of the scientific dynamics of manufacturing smartphones and other electronics from Apple, Samsung transitioned into the manufacturing of its own products in a way that differentiated its products from those of Apple. Through that, Samsung emerged as one of the Apple's major competitors in the global consumer electronics and smartphone market (Jae-Won, 2013). Likewise in the United States, when Polaris was entering the heavyweight motorbike production market, it purchased

and unpacked all the Harley-Davidson's heavyweight motorbikes in an exercise of reverse re-engineering to create and develop the heavyweight motorbikes of their own (Hitt, Ireland & Hoskisson, 2016).

However, since imitators often emerge to surpass the original product inventors, the original holders of intellectual property rights often monitor and respond more aggressively to any form of their products' imitations. In most of the cases like it was in the Samsung-Apple case, it can lead to lengthy litigations attracting hefty fines for copyright breach. This can even cause the liquidation of the imitating entrepreneurial venture. Imitated products also take long to diffuse across the market due to poor customer confidence and trust in the imitated products. This was evident for Samsung's case that took long to convince the global market that its imitated smartphones were better than those of Apple until it proved that it was.

For emerging entrepreneurial ventures, this can cause low sales, revenue and profitability that can affect the initial sustainability of the entrepreneurial venture. Learning and imitation may require the use of reverse re-engineering. It may also involve the use of recombinant innovation which is the strategic process of combining and integrating other innovation ideas and technologies to create completely new products.

Recombinant innovation uses ideas from the innovations of the existing products to create something new. This was evident in Tesla's electric cars' innovation that combined different battery energy technologies with automobile engineering technologies to create electric driven engines as compared to fuel combustion engines. However, besides learning and imitation, innovation ideas can also emerge from the conditions posed by the regulatory changes as well as the degree of industry or market saturation.

Degree of Industry or Market Saturation

Degree of industry or market saturation is a critical determinant of whether or not businesses may commit the requisite resources towards innovation. Just like in the product life cycle, industries and market growth also tend to unfold according to four main stages in the industry life cycle stages. These four stages include introduction, growth, maturity and decline (Hagiu & Wright, 2015). The introduction stage refers to the stage at which the industry is at its lowest levels of performance. This is often attributable to the novelty of innovations and technology and lack of significant customers' awareness about the industry.

This causes limited opportunities that tend to discourage new entrants. New entrants are also discouraged by the fact that technological novelty and lack of experience limit the accumulation of relevant knowledge repositories on how to undertake innovations that drive down costs (Clayton, McDonald, Altman & Palmer, 2016). These high costs also tend to further deter competitors as well as customers.

However, it is not only these higher costs that instigate the need for investments in new innovations, but also quests to respond to the needs and demands of the largely affluent customers, innovation oriented and risk-tolerant customers. Pioneer firms invest enormously in innovations to lower costs and create value add through superior quality to attract mainstream customers. This results in improved industry attractiveness, which often spurs the industry into the growth stage. Further innovations often continue into the growth stage of the industry life cycle. Quite often, this is attributable to the fact that as the emerging industry players scamper for industry leadership, increased investments in innovations tend to further drive down costs. In turn, the effects of such significant reductions in costs tend to lower prices.

Combined with further investments in innovations that may also bolster improved quality and superior customer values, it is often this improvement of customer values that subsequently spurs further attraction of more mainstream customer segments (Clayton et al. 2016). Subsequently, this leverages increments in sales and profitability; providing that offers more cash reserves for further investments in innovative initiatives.

Significant attractive industry growth tends to offer enormous growth opportunities for firms. It is these attractive growth opportunities that may continue to attract entrants to subsequently instigate growth of the industry to the maturity stage. The maturity stage comprises of two stages phases. The first phase stage is the initially attractive stage of industry maturity in which firms that have been in the industry for a long time focus on recouping the costs of innovations (Govindarajan, Kopalle & Danneels, 2011). Quite often, this is done through focusing on reaping economies of scale arising from declining costs of innovations, advertisements and scale of operations.

Economies of scale also tend to emerge from the more stable brand image, and confidence and trusts that customers have in a particular business. Subsequently, this drives down marketing and advertisement costs (Bergek, Berggren, Magnusson & Hobday, 2013). However, over time, the growth in the maturity stage of industry life cycle tends to slide into the saturation state Industry saturation often arises from the increasing entrance of a significant number of rivals. Industry saturation causes unattractive investment situations on the basis that high advertisement and innovation costs tend to lower profitability. This is often further exacerbated by the fact that firms of dominant characters that have enjoyed the benefits of the industry for a long time may tend to lose as compared to smaller new entrants using niching and better networking to offer /provide better value offerings (Govindarajan et al. 2011).

New entrants also tend to enjoy enormous cost advantages by acquiring exiting firms at relatively lower costs to offer them enormous assets' advantages. Combined with new thinking and insights into how to turn around performance in the midst of the impending industry saturations, new entrants tend to engage in innovative initiatives that offer them advantages that cannot be matched by the established industry players that are stack in higher cost structures that cannot easily be changed without undermining performance. Quite often, such higher costs are linked to higher salaries, benefits and incentives that had been offered to key employees during the years that the company was experiencing outstanding performance and growth.

These cost disadvantages are often further affected by ingrained inefficient systems and practices that affect the quality of customer services and a firm's overall flexibility and agility to respond to the emerging changes. As more agile new firms engage in aggressive innovations to create new superior substitutes or to recreate new superior versions of the same product, the industry starts tend to experience decline. This is because such new substitutes or recreated similar versions of superior products tend to reposition themselves as different from the previous brands that blossomed and declined. It is this marketing approach that creates a new thought process, and by extension a new industry for the new substitutes or modified versions of original superior products. Subsequently, this causes the decline of the previous product and its industry. Businesses caught in these situations often undertake a combination of product, process and strategy innovation approaches latent in asset and cost surgery, selective product and market pruning and piecemeal productivity moves.

In the application of asset and cost surgery, the executives will have to undertake aggressive cost reduction of excess capacity, suspension of new investments in unnecessary plant and equipment, and reduction of investments in R&D as well as marketing (Bergek et al. 2013). These strategies may be utilized in conjunction with selective product and marketing to identify the most profitable areas that the firm has significant strengths and where attention must be directed. Piecemeal productivity improvement may involve re-engineering and restructuring to eliminate redundant structures and units to leverage a firm's overall operational efficiency. As these strategies are being used, firms faced with impeding risks of declining industry attractiveness and competition may also opt for leading, niching, harvesting or divesting.

Leading is undertaken by firms aiming to gain control of industry leadership. Quite often, this may require aggressive investment in R&D to unlock disruptive new innovations that would reshape the existing industry structures to a firm's advantages. Some of the other leadership strategies also involve acquiring rival firms with the required unique competencies and capabilities to recreate a firm's existing heterogeneous capabilities to deliver unique superior performance. If all these strategies fail to revitalise a firm's performance, the only remaining options would be to niche or harvest and divest to invest in new and alternative industries. However, it is not only the different stages in the industry life cycle that influence the executives' strategic decisions to innovate or not to innovate, but also competitors' actions.

Competitors' Actions

The intense nature of industry rivalry may also instigate the need for firms in that industry to invest in necessary innovations to survive. Whether it is in larger or small firms, high levels of competitiveness often provoke the executives to engage in different innovative activities. For small firms, constraints of insufficient capital finance and limited R&D capabilities may limit investments in extensive R&D that produce superior innovations that disrupt and reshape the existing industry conditions to a business' advantages (Zheng, Liu & George, 2010).

However, it is still often evident that as competition intensifies, small and medium size businesses often research and invent their own suitable unique innovative strategies through which they can survive in the midst of the rising level of rivalrism. This may involve niching to develop products with unique taste and features that are tailored to the unique needs of the segments identified to have been neglected by big businesses. It is through such a niche that the small and medium size businesses may not only survive, but also grow and gain the competence and capabilities over time to compete with bigger businesses.

As some of the small and less superior businesses use niching, others may opt for innovative sourcing to gain cost advantages that most of the business are often unable to attain. Such change in sourcing strategies may also involve either opting for outsourcing or partial reworking of inputs to modify quality of inputs and gain not only cost advantages arising from sourcing from of cheaper raw materials, but also differentiation advantages emerging from the unique ingredients added to the inputs (Zheng et al. 2010). In other words, since product innovations are quite expensive, most of the small businesses may opt for process and strategy innovations. That implies that in the quests to sustain/ leverage their survival in the midst of rising competition, smaller businesses may focus on reviewing and modifying the internal business processes and operations to develop new cost advantages that would enable them to deliver superior values to the customers in a way that cannot easily be matched by the usually cost-constrained big businesses.

Such initiatives may be accompanied by improvement of the quality of services to customers through automation or offering one-on-one personalized services. This improves customer relationship management to subsequently differentiate the quality of

customer services in smaller businesses from the quality of customer services in big businesses where the quality of customer services is often a lesser considered factor.

As the small and medium-sized firms struggle with how to effectively survive in the midst of intense industry rivalry, extensively large firms often face the challenge of diffusing threats from disruptive innovations that reshape the nature of the existing industry game to the advantages of rivals. To curtail such threats, most of the extensively large enterprises often engage in aggressive innovations to develop superior products that counter these disruptive innovations (Madjdi & Huesig, 2011).

If the emergence of such superior products is not able to counter threats from disruptive innovations, some of the businesses may opt for strategic alliances, collaboration /cooperation or mergers and acquisitions of rivals with unique core competencies. These collaborations and mergers enhance the combining of capabilities to create new advantages that would enable partners and rivals in the cooperative arrangement to control the pace of the rising competition.

Such strategic alliances or mergers and acquisitions may take the form of vertical backward integration to lock out rivals from superior quality and cheaper sources of inputs, or vertical forward integration with key distributors, wholesalers and retailers in potentially lucrative markets to disadvantage other rivals in such markets. In other words, cooperative alliances among rivals influence the control of aggressive advertisement costs to reduce costs and offer price advantages to rivaling disruption innovations.

However, not all forms of disruptive innovations are often disruptive enough to warrant a response. Disruptive innovations emerging from the existing and new industry players may influence the executives' decisions to respond or not to respond by investing in new innovative ventures. Due to advancement in technological research and innovations, some of the modern disruptive innovations are often too advanced and over-featured beyond what customers require. This causes a gap in the richer lower market tiers.

In such cases, disruptive innovations offering superior and advanced capabilities may not be directly fought through counter-innovations of better superior products, but by responding to the gaps created in the richer lower market tiers. However, that may not be the case for disruptive innovations that directly target the richer mainstream market segments. Such disruptive innovations may be challenged by several rivals because of the fact that it touches the mainstream market base that most of the rivals are unwilling to exit. It is such disruptive innovations that invoke the need for gaming and alliance among rivals as critical strategies for reshaping the existing industry structure to their advantages (Madjdi & Huesig, 2011).

Although the application of such a reactive approach enhances the precision of retaliations, in most of the cases, it is important to constantly analyse, sense, read and anticipate the likely emergence of new disruptive innovations in the near future. This enhances the development of proactive innovative initiatives to thwart threats anticipated to emerge from disruptive innovations. Even if disruptive innovations do not emerge, significant shifts in market trends often still instigate the need for the executives to re-think and re-innovate if they are to survive. In the context of the contemporary banks' operations, these raise a lot of managerial implications for the modern banking executives.

MANAGERIAL IMPLICATIONS

As reflected in the suggested model of novel banking innovations aimed at disrupting a crisis in Figure 2, findings imply that in times of crisis, the banking executives must conduct intense industry analysis vis-à-vis the bank's internal capabilities to discern the new innovation ideas that can be converted into novel outcomes that can enable the bank to overcome the crisis. In that process, the banking executives can also use novel innovative knowledge generated from the bank's experience over the years to create and deliver new values to not only to overcome the crisis but also challenges arising from high industry/market saturation. Besides identifying how the bank can respond to the unfulfilled market needs by way of creating niches in a different way , the banking executives can also respond with new solutions to how the crisis has changed the nature of banking operations or way of life of the society. It is from such insights that the bank can emerge with novel ideas and insights to create and deliver novel/innovative values that can overcome the crisis.

Yet as the bank uses market analysis to base its new banking product/services' development on the emerging new customer insights, it can also opt to learn and imitate with the motive of doing even better what the other more successful best banks are doing to overcome the crisis. In terms of disruptive regulatory changes, it is also essential that the banking executives use novel knowledge generated from the bank's experience over the years to create and deliver new values that enable the bank to uniquely comply with the regulatory changes in the way that its rivals cannot easily replicate.

However, for all novel banking innovations aimed at disrupting a crisis to be successful, the essential antecedents that the banking executives must put in place encompass adequate investment in R&D, encouragement of a creative and innovative culture and encouragement of a culture of experimentation and trial and error. Other antecedents include constant industry/market analysis,

sensing and reconfiguration of the existing capabilities of the bank to respond to all forms of disruptions, and the adoption of a culture of continuous innovation and improvement.

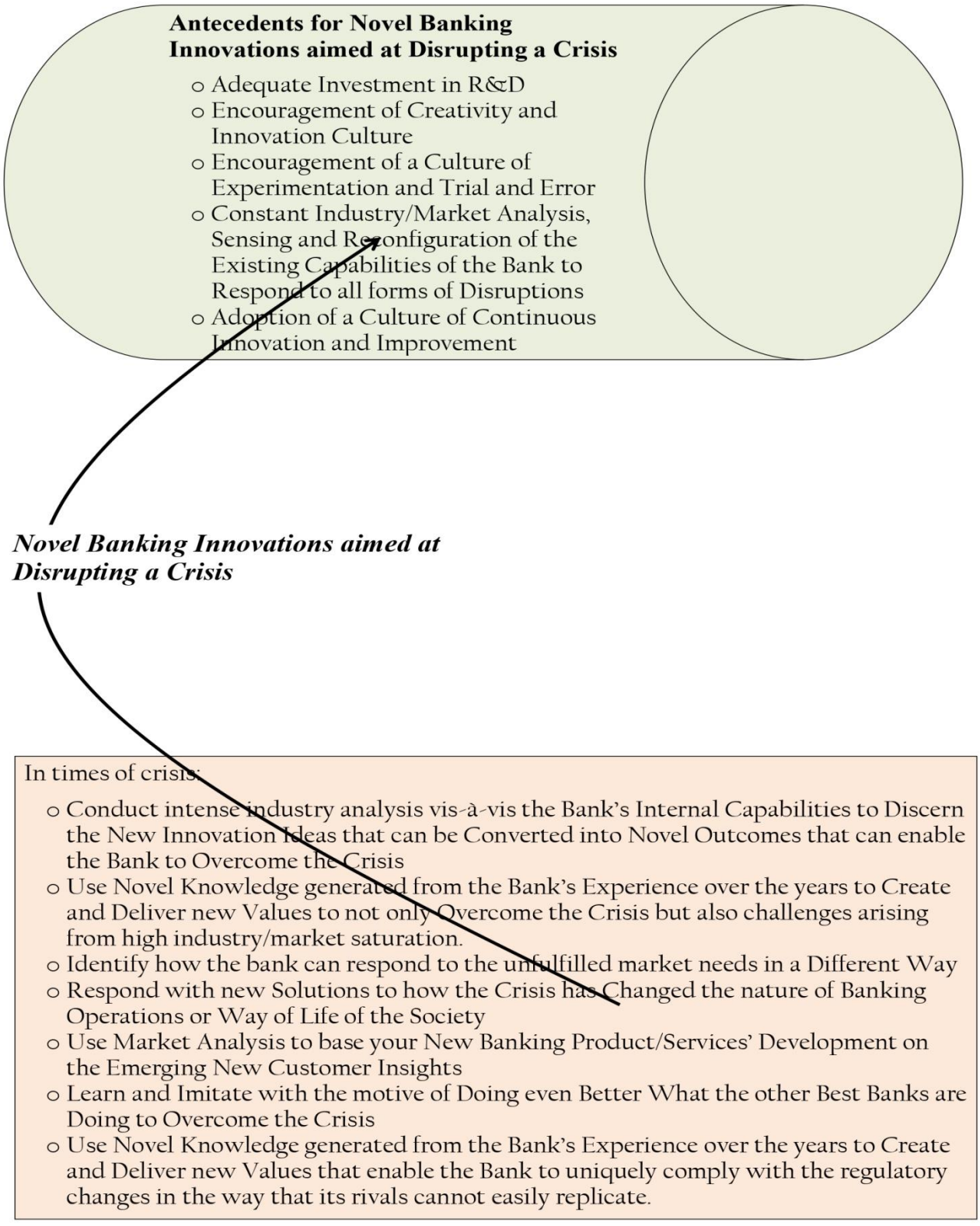

Figure 2: Model of Novel Banking Innovations aimed at Disrupting a Crisis

From such analysis, findings revealed the instigators of innovation ideas that are pursued by most of the banking executives to often arise from knowledge-push sources of innovation, need-pull sources of innovation, crisis-driven sources of innovation, users as innovators as well as learning and imitation as sources of innovation (Tidd & Bessant, 2021; Drucker, 2002; Mehmet , 2019). Other instigators were found to arise from regulatory changes as well as the degree of industry or market saturation. In that context, details of these innovation instigators are evaluated as follows.

CONCLUSION

As every bank engages in innovation to edge out each other during a crisis, some banks tend to become lost completely on the new innovation ideas and trajectory that their innovation business activities must undertake. In contrast, others remain accurately focused with clear ideas and direction that their innovation discourse must undertake. To revolve such paradoxes for not only the lost banks but also the best performing ones, the findings of this paper imply the major areas to look at may be related to instigators like knowledge-push sources of innovation, need-pull sources of innovation, crisis-driven sources of innovation, users as innovators, learning and imitation as sources of innovation. Other instigators were found to arise from regulatory changes as well as the degree of industry or market saturation. From such findings, it is suggested that banking executives must consider adopting the model of novel banking innovations aimed at disrupting a crisis in Figure 2. But given the major focus that has been directed on product innovations, future studies can explore how process innovation leverages a bank's effective performance during a crisis.

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