National Business Model Competition
A Case Study

September 2020
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# Abbreviations and Acronyms

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<th>Abbreviation</th>
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<tr>
<td>BMC</td>
<td>Business Model Canvas</td>
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<td>CASE</td>
<td>College of Agriculture Science &amp; Education</td>
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<td>CDB</td>
<td>Caribbean Development Bank</td>
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<td>DBJ</td>
<td>Development Bank of Jamaica</td>
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<td>EMC</td>
<td>Edna Manley College of the Visual &amp; Performing Arts</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>IBMC</td>
<td>International Business Model Competition</td>
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<td>IDB</td>
<td>Inter-American Development Bank</td>
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<td>JVCAPITAL</td>
<td>Jamaica Venture Capital Programme</td>
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<td>Morris Entrepreneurship Centre</td>
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<td>Multilateral Investment Bank</td>
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<td>MSBM</td>
<td>Mona School of Business &amp; Management</td>
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<td>NBMC</td>
<td>National Business Model Competition</td>
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<td>NCU</td>
<td>Northern Caribbean University</td>
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<td>OECS</td>
<td>Organisation of Eastern Caribbean States</td>
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<td>PSOJ</td>
<td>Private Sector Organisation of Jamaica</td>
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<td>TIC</td>
<td>Technology Innovation Centre</td>
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<td>UTECH</td>
<td>University of Technology, Jamaica</td>
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<td>UWI</td>
<td>University of the West Indies</td>
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<td>VC</td>
<td>Venture Capital</td>
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Executive Summary

This case study was commissioned by the Development Bank of Jamaica's (DBJ), Jamaica Venture Capital Programme (JVCapital), under a Technical Cooperation Agreement with the IDB Lab. The objective is to review the genesis of the National Business Model Competition (NBMC) and chart its growth and development highlighting the successes, challenges, and impact. The case study also captures the lessons learnt from the evolution of NBMC which were distilled into development principles applicable to the growth of entrepreneurship and innovation ecosystems.

The National Business Model Competition (NBMC), an initiative under the JVCapital Programme, is executed on the campuses of four local universities and is organized in partnership with the Private Sector Organisation of Jamaica as project manager and is bolstered with funding/sponsorship for Jamaica’s business community. It follows the rules and procedures of the International Business Model Competition (IBMC) held annually in the USA, which is the first and largest competition of its kind in the world. The primary aims of the IBMC are to inspire and educate smarter student entrepreneurs to launch validated and sustainable business ventures.

The NBMC has had tremendous success both locally and at the international level. As of March 2020, approximately 3000 student entrepreneurs have been exposed to the competition through boot camps and sensitization sessions and have used the Business Model Canvas as a management tool to validate their business ideas and to realize their dreams of establishing their own businesses, self-employment, job and wealth creation.

The NBMC began in 2013 and made its first entry in the IBMC in the following year, achieving 8th place finish out of over 300 global participants. The “compounding evolutionary” effect of the development principles applied resulted in Jamaica winning the global competition in 2018. The experience of creating and developing the NBMC into a system to produce world-leading entrepreneurial results at the student level has provided key insights which can be applied to develop a wider entrepreneurship ecosystem.

Notably, the NBMC must be considered as an ecosystem to support student entrepreneurship and not just a one-off pitch competition. It is a process-driven system designed to use the customer development model to create innovative and creative entrepreneurial ventures to solve customer challenges.

Fundamental Principles

The NBMC helped in distilling a set of fundamental principles that can be used to develop entrepreneurial and innovation ecosystems. The application of these principles was observable at the national level and evolved to be reflected in the collegiate environment of the participating universities. The development process entailed a distinct but integrated set of principles:
Principle 1: A Declaration of Intent to solve a challenge that requires the creation of new models to make the existing constraints irrelevant. The declaration requires a clear understanding of the problem and challenges to be resolved and then to apply an innovative thought process to reframe the problem as a solution. This innovative process will result in a central hypothesis from which the initial solution set evolves and cascades throughout the ecosystem.

Principle 2: Creating a Safe Space in which to implement the creative process. When creating a new model, cultural boundaries may have to be overcome. However, these barriers cannot be negotiated within the construct of the existing cultural strictures. Hence, for a new model to emerge, a safe space; insulated from the existing cultural norms, must be established to allow for new thinking, innovations, and creative work to be done, without interference from the larger cultural scape. In creating a safe operating space, new structures and processes must be established.

Principle 3: Establish self-sustaining mechanisms for the continuous growth of the ecosystem through a responsive evolutionary process. To accomplish this self-generative capacity requires the presence of vibrant ecosystem enablers which provide the substance on which the system sustains itself; and a system of leadership to manage and direct the growth of the system.

There are early indicators that the NBMC is producing the impact for which it was designed, along with other unintended impacts produced by the system itself. Although still too early in its implementation timeline to determine the true impact of the NBMC as a development intervention, there are early indicators that the NBMC could have a significant impact on the national entrepreneurial ecosystem. The underlying sentiment from the stakeholders is the burning desire to translate the success of the NBMC to the next level, the national entrepreneurship and innovation ecosystem.

If the key principle emanating from the development of the NBMC is harnessed and applied to develop market-creating innovation the NBMC would be used as an effective mechanism for the transformation of the innovation and entrepreneurship landscape in Jamaica and the wider Caribbean.

"You will never change a thing by fighting the existing reality. To change something, build a new model that makes the existing model obsolete."

-Buckminster Fuller
"Developing an effective marketplace involves focusing on the building blocks and establishing the networks which link them together. As Jamaica's private capital markets continue to develop and expand, our universities play a pivotal role as sources of innovation and entrepreneurship. After seven years of competition, the success of the NBMC in supporting student innovation and entrepreneurship cannot be overemphasised as, to date, over 3,000 students have been trained in utilising the canvas, more than 40 businesses formed, with 30 still being operational, and a number of them have also received equity investments. These young entrepreneurs have expanded into new markets regionally and internationally, as far away as the United Kingdom. I am exceedingly proud of these student entrepreneurs who represent Jamaica's future, and I believe we can say that much has been accomplished and the future is indeed in good hands."

Milverton Reynolds, Managing Director, Development Bank of Jamaica
Introduction

The Development Bank of Jamaica (DBJ), a wholly-owned Government institution, has as its mandate the facilitation of economic growth and development for all. This is done not only through facilitating access to credit, but also access to equity, via the Jamaica Venture Capital Programme (JVCapital). This Unit was established in 2011 to spearhead the establishment of a venture capital and private equity industry in Jamaica. In 2013, the JVCapital Programme received technical assistance and financial support from the IDB Lab, to undertake a market review and the development of a strategic implementation plan for the industry. In 2016, the DBJ signed a second Technical Cooperation Agreement (TCA), as a ‘follow-on’ to the first, for the support and development of an entrepreneurial and early stage ecosystem for Jamaica.

The projects undertaken by the JVCapital project represent a new approach by the DBJ, to create sustainable development of the Private Equity-Venture Capital industry, by focusing on the establishment of an ecosystem conducive to venture capital development, and through partnerships with private sector interests in the development of projects which impact entrepreneurs, fund managers and investors.

Setting the Scene

To fully appreciate the contributions of the National Business Model Competition (NBMC) to the Jamaican entrepreneurship landscape, it is important to understand the context into which it was born. Over recent years the Jamaican government has successfully executed an economic reform programme which has resulted in stable macroeconomic conditions. Even with the improved macroeconomic conditions, there has been no corresponding improvement in the flow of new capital in the form of Foreign Direct Investment (FDI). Indeed, FDI seems to have no impact on new innovative business venture formation, employment, and economic growth. This phenomenon brings into question the effectiveness of FDI as a development vehicle and set the stage for a new response. Perhaps the missing element of the puzzle is a lack of the right microeconomic conditions to stimulate and support a thriving entrepreneurship and innovation ecosystem. The emergence of the NBMC and its success in creating a supporting framework for student lead entrepreneurship present some unique insights into the principles that could be a microeconomic policy to develop a wider entrepreneurship ecosystem.
Overview

The NBMC initiative was announced at the Venture Capital Conference hosted by the Development Bank of Jamaica (DBJ) in September 2013. The Private Sector Organization of Jamaica (PSOJ), along with the three universities, the Inter-American Development Bank’s (IDB) Multilateral Investment Fund (MIF), and the Development Bank of Jamaica (DBJ), all collaborated to facilitate the execution of the first competition and continue as stakeholders going forward.

The three Jamaican Universities were the University of Technology, Jamaica (UTECH), through the Joan Duncan School of Entrepreneurship, Ethics and Leadership (JDSEEL), the University of the West Indies’ Mona School of Business and Management (MSBM) and Northern Caribbean University (NCU), through the Morris Entrepreneurship Centre. They embarked upon a noble project to promote entrepreneurship with the creation of the NBMC. This competition was spearheaded by the team of universities with the goal of entering the winner of the national competition in the International Business Model Competition (IBMC 2014) in Utah, USA.

The competition is specially designed to encourage and promote the creative and innovative thinking of students, facilitate local entrepreneurial skills and enhance collaboration and communication between the private sector stakeholders and education. The competition hopes to cultivate the establishment of more creative enterprises and promote innovative businesses in Jamaica.

In addition to creating a pipeline of potential entrepreneurs, further benefits of an investment in a national business model competition include:

- Creating a platform for experiential learning and the honing of entrepreneurial skills.
- Building valuable networks, among team members, mentors, judges, and the investment community.
- Increasing visibility of entrepreneurial opportunities and innovative thinking to a mass audience.
- Attracting and emboldening local aspirants to contemplate and venture into the world of entrepreneurship.

A multi-stage approach was adopted to the overall preparation of a Jamaican team to participate in the international competition. The stages include:

1. Intra-university competitions, to select three to four teams each, to represent their respective institutions.
2. The National Competition among the universities to select one representative to represent the country.
3. The International Competition.

The three final winning teams are given the opportunity to convert their business to reality through prizes in cash and kind.

It was agreed that the University of the West Indies (UWI), due to an existing tradition and experience with venture competitions, would be the host university and play a leading role in the execution of the initial multi-stage event. In so doing, the UWI extended, where feasible, support to the other universities in the execution of their own internal events. As a result of the shared national vision for the outcome of the process, the spirit of collaboration was exemplary and remains strong among the universities.
The prizes for the first two years of the NBMC were sponsored by Mr. Paul Ahlstrom of AltaVentures Group, and Mr. Joseph M. Matalon, Chairman of the ICD Group of Companies. The NBMC semi-finals and final competitions are held annually during the month of March. The national winner and coordinator are afforded an all-expense-paid trip to the IBMC. The IBMC is scheduled for early May and has rotated between universities including Brigham Young University, Stanford University and Harvard University in the USA.

This case study draws insights from the formation and development of the NBMC, which models the IBMC, and created a system to support the introduction of the Lean Start-Up Methodology (proposed by Eric Ries in 2008) and Business Model Canvas (introduced by Alexander Osterwalder in 2005) as tools to support the success of start-ups ventures. Despite its relatively small and seemingly spontaneous origin, it represents a critical point in the journey for the creation of a new model to cultivate the development of innovative businesses in Jamaica.

This case study proposes the hypothesis that the NBMC is a market-creating innovation. From its inception in 2013, it called for a shift in culture and practices related to entrepreneurship development and innovation. To elaborate on this hypothesis, this case study will:

- Distil the principles of success used in creating the NBMC
- Provide insights into how these principles can be applied to the successful development of a new model for a start-up ecosystem creation.
- Make recommendations to establish a framework for its continued growth and impact.

BEASC TECH, Winner of the International Business Model Competition 2018
The NBMC is a unique student start-up competition focused on the inputs, not the outputs, of the entrepreneurial process. The competition rewards active identification and validation of crucial business model hypotheses rather than the writing of a static business plan. Thus it emphasises talking to real customers in their live domain rather than researching secondary data; on applying customer development rather than relying on product development; and "pivoting" or changing course rather than steadfastly executing a static business plan.

The competition focuses on the process entrepreneurs undertake as they test their most crucial hypotheses with customers and develop validated business models. The goal is validated learning about the key business model hypotheses; failing early is a success compared to failing late. This new approach will improve the success rate of new ventures saving both time and money in the process.

**NBMC Organisational Structure**

The NBMC is the nucleus of three-tier competition architecture, which links the university competition to the IBMC (Figure 1). The process starts at the university level, where collegiate level competitions select participants for the national level NBMC. The University of the West Indies, The University of Technology and Northern Caribbean University were the first accredited institutions of higher education to participate in the competition in the 2014 academic year. Subsequently, Edna Manley College of the Visual and Performing Arts and the College of Agriculture, Science and Education joined the competition. The top finalists in the NBMC are eligible to participate in the IBMC either as a national representative by winning the NBMC (an accredited qualifier competition); or through an open "online round". Approximately 5,000 student entrepreneurs worldwide compete for a space at the finals where 40 universities from different countries participate in the IBMC.
University Business Model Competitions

It useful to explore how the business model competition is established at the university level because its winners then go on to compete in the NBMC. The process of establishing the university business model competitions evolves over five phases (Figure 2). The first phase is to obtain buy-in from university management, academics, and staff. This process is led by the VC Programme. With guidance from the JVCapital, the universities identify and appoint a coordinator, who will ‘marshal’ the student entrepreneurship movement on campus. The coordinators will also serve as members of the NBMC Steering Committee. The coordinators will then take the lead role building awareness about the NBMC and identifying potential participants by hosting sensitization sessions with a wide cross-section of students and faculty leaders that discuss the principles and benefits of entrepreneurship, innovation and the Business Model Canvas. With a critical mass of potential participants engaged, the coordinators then engage those participants in boot camps to drill down the elements of business such as marketing, sales techniques, customer segmentation & customer relations, channels of distribution, costing and financial projection. Following the boot camps, potential participants who expressed strong interest, are prepared, coached, and facilitated into participating in the university’s business model competition. The university level competition follows a similar format to the NBMC, student entrepreneurs are taken through qualifying rounds leading to the finals where cash prizes are awarded to the winners. The top three winners from these collegiate competitions then go on to represent their university at the NBMC.

Figure 2: Process of establishing the University BMC

1. Obtain Buy-in
   University management, academics and staff agree to participate in NBMC and host internal competition

2. Appoint Coordinators
   The coordinators ‘marshal’ the student entrepreneurship movement on campus and become a member of the NBMC Steering Committee

3. Host Sensitization Sessions
   - Introduce the Business Model Canvas as a management tool to transform business ideas and concepts to viable business ventures
   - Establish a case for a new approach to entrepreneurship
   - Multi-stakeholder engagement and awareness building about the NBMC

4. Boot Camp
   - Drill down on the key elements of the Business Model Canvas
   - Expand on the philosophy underlying the Lean Startup methodology
   - Deep dive to generate ideas for the internal business model competition

5. Business Model Competition
   - Run internal business model competition
   - Proportional cash prizes are awarded to the winners
   - The top three winners represent the university in the NBMC

Establishing a Business Model Competition
University Programme
Developing the NBMC

An analysis of the development of the NBMC highlighted fundamental principles which contributed to its rapid growth and development. The application of these principles was observable at the national level and the collegiate level as the business model competition evolved. The development process entailed three distinct but integrated set of principles (Figure 3). The development process is initiated by a declaration of intent, which brings new insight to solve an existing problem. The introduction of new knowledge will then require safe space in which to incubate and develop the culture, structure, and process to support it. Finally, the enabling elements and leadership will be required to establish the self-sustaining capacity of the system.

Principle 1: The Declaration of Intent

The first observable development principle, which initiates the process, is a clear Declaration of Intent to solve a challenge that requires some level of innovation to create a new approach. The declaration requires a clear understanding of the problem and challenges to be resolved and then to apply an innovative thought process to reframe the problem as a solution. This mental construct forms the hypothesis from which the initial solution set will evolve.

The Declaration: In September 2013, Paul Ahlstrom, a Venture Capitalist of Alta Ventures USA, who was the main presenter at the DBJ inaugural Venture Capital Conference (VC Conference), made the call to action for Jamaica to start a Business Model Competition and, by extension, adopt the Lean Start-up approach to business development. The declaration also came with an invitation to field a national team in the 2014 IBMC.

At that time, the awareness of the Business Model Canvas was exceptionally low in the local development landscape. However, the declaration set in motion a series of actions that gave birth to a new model of entrepreneurial development which has had a ripple effect on the local entrepreneurship and innovation landscape. Along the way, it would displace the long-established norm for business development which emphasised the use of the business plan as the primary requirement for starting a business. The business plan approach to business development created an extremely high hurdle for start-ups and MSMEs alike and resulted in the low adaptation of any form of the business development approach.
Although business plans were pervasively used, there was limited evidence of its causal relationship to business success in a nascent entrepreneurial ecosystem. On the contrary, the failure rate of small businesses was remarkably high.

The declaration of intent emanating from the 2013 VC Conference led to the introduction of the NBMC as a vehicle to introduce the Business Model Canvas as a new tool for entrepreneurial development. However, the preparation for a credible representation at the IBMC would create an even greater set of challenges. It meant introducing the business model into the university system, attracting, and empowering the first cohort of participants, and arranging university level and national level competitions, all within six months and without an established source of funding. To complicate the challenge, there were no supporting systems from which to facilitate an effective response, and the national microeconomic conditions were unfavourable to innovative entrepreneurship, despite promising efforts to establish an entrepreneurship ecosystem by the Development Bank of Jamaica (DBJ). Therefore, a credible response to this challenge required the creation of an entirely new model for early-stage entrepreneurship support.

Principle 2: Creating a Safe Space

The second principle in the development of the NBMC was the creation of a Safe Space in which to implement the development process. The introduction of a new model requires the navigation of cultural boundaries which support the status quo. However, these barriers cannot be negotiated within the construct of the existing cultural strictures. Hence, for a new model to emerge, a safe space; insulated from the existing cultural norms, must be established to allow for new thinking, innovations, and creative work to be done, without interference from the larger cultural environment. In creating a safe operating space, new structures and processes must be established.

The NBMC represents this safe space for innovative student entrepreneurial experimentation. The competition would break from the dominating social construct that perceived failure as a negative outcome and instead would welcome failure as a point of reflection and deeper learning. The NBMC was designed with the right structure and processes, which establishes order while allowing for continuous learning and growth of the student entrepreneur.

Structure: Order was established by creating a common theory of change, which influences and establishes one central thesis that informs the structure around which the competition was built. The following assumptions informed the theory of change designed to address the challenges restricting the development of the dynamic entrepreneurial ecosystem:
• Establish a new standard for business development, using a scientific approach proven to have been successful in other markets: i.e. the Lean Start-up approach using the Business Model Canvas.

• Establish the Business Model Canvas as the primary tool for entrepreneurial development instead of the Business Plan.

• Embed the Lean Start-up approach in the universities to educate and inspire smarter entrepreneurs who in turn, launch more successful ventures.

• The model would embed a collaborative spirit which leverages the natural creativity, innovativeness, and entrepreneurial spirit of the Jamaica people.

• Establishing a new game (the NBMC) that creates a multi-side platform for all to win, in and out of the game, based on wisdom gained from experience.

**Processes:** To embed the unifying structure which gave the NBMC its distinguishing features as a more innovative approach to entrepreneurial development, the following operational processes were synthesised as the competition evolved:

• Following the guidance of the JVCapital, the university environment became the structure around which the competition was built. The role of the universities as the incubators of the entrepreneurial spirit, arbiters of the innovation culture and co-facilitators in the emerging entrepreneurial class was fundamental to the NBMC development process.

• A comprehensive tool kit which comprised of: the procedures manuals, methodologies, and work plans became the core currencies which kept the competition in balance as it evolved, the absence of which may have resulted in the inability of the system to sustain itself.

• The convening power of the JVCapital to marshal a wide array of supporting actors in the form of mentors, judges, coaches, trainers, and financial resources was instrumental to the success of the NBMC. This support infrastructure became the key resources on which the entrepreneurs and universities inextricably depended in the formative period.

• The seasonal routine (October to March) of the NBMC set the cadence around which life in the ecosystem operated as it built anticipation and excitement, thus attracting new players and enablers that give the system capacity to multiply itself and scale.
The third development principle reflected in the development of the NBMC is the establishment of the key elements of the ecosystem which informs its self-sustaining characteristics.

For the NBMC to sustain its growth and development and have a deeper impact on the potential entrepreneurs it inspires and the wider ecosystem at large, a commitment to continuous growth through a self-regulated and responsive evolutionary process is vital. As such, two self-generative characteristics are built into the design architecture of the NBMC. One such element is the enablers of the ecosystem, and another key element is leadership. Through positive leadership, the enablers and all elements of the system are orchestrated to perform at their optimum potential. Thus, there exists a symbiotic relationship between the enablers and the leaders due to the mutual co-dependency required for the ecology to operate.

Ecosystem Enablers are, in fact, the self-generative capacity and life support of the system. The effectiveness in building out this enabling environment, which facilitated a positive compounding exponential growth of the NBMC as an ecosystem, could perhaps explain the speed at which the NBMC was able to produce an international winner within five years, surpassing well-established ivy league universities. The core of the NBMC support system included the following ecosystem enablers:

**The Chief Facilitator:** The DBJ and the JVCapital team, in particular, emerged as the lead facilitator around which the NBMC evolved. The convening power of JVCapital was critical in bringing all the required enablers to the table in a spirit of collaboration. The DBJ also leveraged its credibility to attract investors who bought into the vision of the NBMC and its potential in reshaping Jamaica’s entrepreneurship and innovation landscape.

**The Catalysts:** The NBMC would not be possible without the timely input of the following sponsors who catalysed and financed the initiating process:
- Paul Ahlstrom- a Venture Capitalist of Alta Venture – call to action and lead co-sponsor.
- Joseph M. Matalon, Chairman of ICD Group Ltd. and then Chairman of DBJ, first champion and founding lead co-sponsor.

**Sponsors:** The initial sponsors who provided the initial financing to build out the operational capacity of the NBMC included: IDB, PSOJ, and other private sector enterprises like PANJAM and GK Capital, whose participation may have been driven by corporate social missions.

**Student Entrepreneurs:** The first cohort of student entrepreneurs who participated in the initial competition blazed a trail which inspired other students to follow. Their courage and innovativeness should be saluted. One of the ventures formed during the initial staging of the NBMC still exists today and has gone on to serve customers in the global marketplace.
**The Coaches:** were critical to the success of the competition at the university and national level. The timing of the introduction of the lean start-up methodology and the business model canvas was aligned with their own intent to find a better system for business development. The coaches quickly adopted the methodology and passionately pursued its use in the university programmes. The personal commitment of the coaches to the student entrepreneurs is worthy of special mention. Many invested their personal time, energy, and resources well beyond the scope of their engagement with the universities to which they were employed. The coaches also assumed the role of the change agents and protagonists within their universities to ensure the shift to the business model canvas was entrenched as a standard tool for entrepreneurship development.

**Founding Universities:** The initial universities that pioneered the first iteration of the competition and whose feedback were pivotal to the development of the NBMC included: the University of the West Indies, Mona; the University of Technology, Jamaica; and Northern Caribbean University.

**Mentors:** The mentorship element of the NBMC ecosystem evolved organically as past participants return to their universities to give back by mentoring new participants of the competition.
The Leadership structure is a critical element for the growth and development of the NBMC ecosystem. At this stage, when the IDB Lab funding is coming to an end, the leadership of the NBMC ecosystem may need to be evolved. The current leadership framework for the NBMC is comprised of two dimensions:

**Micro-level Leadership:** At the micro-level, student entrepreneurship is the central currency of the system. The university coaches and mentors play a crucial role in developing the leadership and entrepreneurial skillset of the student entrepreneurs. These student entrepreneurs go on to form teams and lead the business model development process. At this juncture, consideration must now be given on how to transition these student entrepreneurs to leaders of high growth ventures.

The system should also have the capacity for the continuous identification, attraction, selection, coaching, and empowerment of world-class entrepreneurial talents, which will inspire the emergence of a new entrepreneurial class.

**Meso-Level Leadership:** At the meso-level, the NBMC has established a strong brand as a leading entrepreneurial learning platform. This brand has been leveraged to expand the scope and scale of the participating universities involved in the competition. What is now needed is a new model of growth designed to achieve a deeper level of impact on the overall ecosystem within which it operates. The underlying philosophy, methodology and tools will also need to be reviewed in light of recent evolution in the Lean Start-up movement and the shift to the use of the Lean Canvas.

This phase of the creative process is still evolving and, as such, there is still much work to be done to ensure the continued development of the NBMC and ensure a positive impact on the entrepreneurship and innovation ecosystem. The following may be considered:

- Explore new models of leadership. Should the DBJ continue to lead the development of the NBMC ecosystem and, if so, what structure would be in place to support the competition when the IDB Lab funding comes to an end?

- Should DBJ spin off the NBMC as an autonomous organisation or get a partner to manage it?

- Should the governance structure comprising an array of ecosystem partners be maintained or should a smaller and more flexible structure be considered for the emergence of a more agile and responsive system of leadership?

- Irrespective of the structure, a concerted effort should be made to incubate, accelerate, and provide access to capital and networks to support the entrepreneurial talents discovered during the NBMC.
Key Insights

Two key insights were derived from the development experience of the NBMC. The first is an implicit hypothesis related to the formation of market-creating innovations through the application of the NBMC. The second related to using one of the principles distilled from the development of the NBMC to trigger a shift in the entrepreneurial culture.

**Market-Creating Innovation:**

The growth model for Jamaica emphasises the use of macro-economic principles, which play an important role in establishing the fundamentals from which growth can evolve; however, this is not sufficient to drive growth directly. Despite persistent lagging economic performance, few alternative approaches have been explored. However, the seed of an alternative approach to growth may have inadvertently been planted with the introduction of the NBMC, the underlying philosophy of which has some alignment with the evolving school of thought around market-creating innovations. Market-creating innovation attracts new capital, creates direct employment, and catalyses the development of new value chains thus creating new distribution systems and technical capacities in the domestic market. Typically, this type of innovation targets a critical mass of underserved or unserved customers, with a value proposition that addresses a basic market failure, which may have deeper socio-economic implications.

The emphasis of "nailing" the customer pain point, as emphasised in the NBMC, represents the starting point in developing market-creating innovations. The Lean Start-up approach uses the concept of a "pivot" to position failure in a constructive way. The insight of using failure as a leverage for growth and development is perhaps the most cardinal point emanating from the introduction of the NBMC, not only due to its potential impact of influencing a more innovative culture, but also because of its invitation to target more ambitious goals; which is often the initiation of a market-creating innovation.

However, certain conditions must precede the creation of market-creating innovations. These include an innovation culture, advanced entrepreneurial competence, and the capacity to inspire a new generation of creative and innovative entrepreneurs. The principles implicit in the creation and growth of the NBMC are representative of the principles that can be used for the development of a more inclusive entrepreneurship and innovation ecosystem.
Orchestrating a Culture Shift: The first stage of the culture shift is to create a safe space where deep innovative capacities can be developed without the fear of failure. The NBMC provided such a space for student entrepreneurs, and similar platforms should be created at the national level to stimulate the wider entrepreneurial ecosystem. Orchestrating a deliberate shift in the culture scape towards an innovation and entrepreneurial mindset must be a part of the long-term strategy to sustain the growth of the competition and the overall ecosystem.

One of the positive effects of the NBMC is the organic shift in the cultural attitude towards innovative entrepreneurship. Many of the past participants now express a grander view of their entrepreneurial dreams and ambitions. They have shown significant growth in confidence, which is attributable to the rigours of presenting their entrepreneurial journey at varying levels. From timid beginnings presenting to their peers in their dorms, many have been transformed into confident entrepreneurs presenting their journey of failure and triumph on the national and international stage.

The positive public relations and communication emanating from the success of the NBMC are likely to have a positive effect on the entrepreneurial ecosystem.

"I am very pleased to have not only been a part of the NBMC, but also to have been with the programme from the start, while at the PSOJ. Over the years I have watched the competition grow and become a part of the DNA of the universities and their staff and students. It certainly had a huge positive impact on the perception of entrepreneurship as a viable profession and resulted in the growth of not only the students but also the staff who was involved in the process. A lot of great ideas came out of the competition, and someday we could easily see a large company emerge from it. My view is that the NBMC has become a critical feature of the entrepreneurship journey in Jamaica as it bridges the link between universities and the world of work. I would like to not only see it continue but maybe a version can be developed to extend it to high school students."

Dennis Chung, Chief Executive Officer, Supreme Ventures Services Ltd. and Former Chief Executive Officer, PSOJ
Impact

By all feedback received, the NBMC has been successful in achieving its objectives. The performance of the Jamaican teams in the global competition has been outstanding by any measure. Undoubtedly, the NBMC has delivered on its objective. A chronicle of the NBMC over its first five years highlights an improving performance over time; although not in a linear manner, in a cyclical flow in accordance with a natural pattern. During its first year at the International Business Model Competition, Jamaica entered one team and achieved an 8th place finish in the finals. By 2018, Jamaica swept the competition and won 1st and 2nd places, as well as a third team placing within the top ten, within this global BMC. Changes to the competition methodology, shifting from the Business Model Canvas to the Lean Canvas, caused a pause in the dominance of the Jamaican teams, which still performed credibly with almost all the teams reaching the semi-finals.

The principles implicit in the creation and growth of the NBMC are representative of the principles that can be used for the development of a more inclusive entrepreneurship and innovation ecosystem.

Apart from the symbolic representation of the principles of growth, the NBMC will directly contribute to the growth of the ecosystem through the development of a robust pipeline of high-potential entrepreneurial ventures designed to have the impact characteristics of market-creating innovations.

The following placements from 2014-2019 are positive indicators of the potential future impact of the NBMC.
Impact Evaluation Framework

Although still too early in its implementation timeline to determine the impact of the NBMC as a development intervention, there are early indicators that the NBMC could have a significant impact on the national entrepreneurial ecosystem. The underlying sentiment from the stakeholders is the burning desire to translate the success of the NBMC to the national entrepreneurship and innovation ecosystem. However, it is recognised that this must be approached in a systematic and intentional way, where the prime objective is to use the principles embodied in the formation and growth in the NMBC to create a larger system of impact. To manage this effort, a special design impact evaluation framework is required to manage the process.

Consistent with the innovation accounting approach, the following framework (pictured below) is proposed to define and measure impact, and then that insight can be used to pivot and improve the system. To measure the impact of the programme an impact evaluation framework would have to be designed, based on a theory of change on how impact could be achieved. This would include establishing a comparative framework against which results will be measured. This framework establishes the platform from which causal attributes can be assigned to the effects of the NBMC. With an effective measurement framework, the facilitators of the NBMC will have the required data to continuously pivot and improve the business model.

Measure & Improve

![Impact Evaluation Mind Map]

Figure 6: Monitoring and Evaluation Conceptual Framework
Early Indicators of Impact

The early success of the NBMC has resulted in new business formation, which is a positive indicator for the overall entrepreneurial ecosystem. Over 3,000 students have been exposed to the advanced business development methodologies used by the NBMC. Seventy-five teams, operating across five sectors, entered the competition, of which 40 went on to register a business interest formally. To date, approximately 30 of these businesses remain in operation, generating employment.

Network Effect: There is an immeasurable effect of the networks created in the local start-up ecosystem, where there is an increasing number of business service providers, accelerators and pitch competitions, which have structured their programme around the Lean Start-Up Methodology and the Business Model Canvas. Some examples of these include the SME pitch competition by First Heritage Cooperative Credit Union, NCB Capital Quest, and Total entrepreneurship competitions. Regionally, the OECS Sustainable Development Movement Business Model Pitch Competition was modelled based on the NBMC.

The number of sponsors has increased over the years, which have resulted in J$24M in prize money (grants) disbursed.
Impact on the Universities

The NBMC has inspired the participating universities to revise or remodel their accelerator and/or incubator programmes based on the Lean Start-Up methodology. They have also adopted the Business Model Canvas, which is now a part of the language of business development in the wider ecosystem.

Northern Caribbean University
“... it is about business start-ups that are making an impact on the Jamaican economy. Where the winners are setting up business and are successful in the long-term.”

Hidalgo O'Connor, Former Coordinator, NCU

University of Technology Jamaica
“The competition is good for the university overall because it develops the students through exposure. They are able to link what they are learning in the classroom”

Dionne Palmer, Former Coordinator, UTECH
"The impact of the NBMC on Jamaica's entrepreneurial and early-stage ecosystem has been tremendous. When we embarked on this journey in 2013, it was with a concerted effort to create a movement that would impact the lives of participants at the university, community, and national levels. Seven years on, we have witnessed the personal and professional growth of the student entrepreneurs who have embraced the tenets of the competition, by utilising the lessons of the Business Model Canvas to build innovative businesses which solve real problems and create real value for customers. They have honed and sharpened their communication skills, they are passionate and driven, and are fierce competitors at the International Business Model Competition, annually. All of this has enhanced Jamaica's role as a dynamic hub for innovation and entrepreneurship, in the Caribbean."

Audrey Richards, Project Coordinator, JVCAPITAL

UWI-MSMB

"The NBMC has provided a “home” for many budding entrepreneurs within the university communities. The competition allows students to engage with like-minded individuals on campus and expand their networks through this competition...it has been a pivotal point for growth and development for all involved, forcing participants to take a deep dive into their “why” and their “how” in order to create profitable and sustainable businesses of tomorrow"

...Ashli Rose Davis, Coordinator, UWI-MSMB Business Model Competition
Stories of Impact Beyond the Competition

Already there are early indications of an evolving entrepreneurial mindset which transcend the NBMC. Alumni of the NBMC have gone on to create several innovative business ventures, while others have gone on to win start-up pitch competitions using the lessons learnt from their participation in the NBMC. The following highlights recent press releases supportive of the positive momentum emanating from the NBMC, which could well represent a prelude to even greater impact.

Preelabs: Translating Vision to Reality. Preelabs aims to solve one of the biggest problems Jamaicans face, the high cost of electricity. Preelabs is best known for PowerPree, a line of devices that allows users to monitor and control their energy use with a companion internet-based software system.

University of Technology, Jamaica student Rayvon Stewart’s invention, XERMO SOL was named by Commonwealth Secretary-General Baroness Patricia Scotland as a possible key weapon in the fight to contain the spread of the COVID-19. XERMO SOL is a simple device that uses ultraviolet light technology to kill bacteria found on doorknobs, thereby reducing the risk of an individual contracting a germ upon contact.
Queritel is expanding through acceleration: NBMC 2018 winners Queritel have become the first Jamaican and Caribbean start-up to be selected by the Chile Accelerator Programme. Offering Queritel a grant of 50 million pesos to initiate operations in Chile, the programme is known as one of the leading accelerators in South America.

HERBOO expanding to global markets: IBMC 2014 winner Herboo achieved massive expansion bringing Jamaican-made products to the United Kingdom, Germany and the Netherlands.
Impact on Student Entrepreneurs

**NBMC Student Participant:** "Pivoting is always the hardest aspect of the whole process. We would meet our mentor and present the data, and the pivot would be based on the data we presented. This was necessary as we could not go forward with flaws in our business model."

**NBMC Student Participant:** "This competition has allowed me to see life differently, I no longer see problems. Now I see business opportunities and way to contribute to life more positively."
“PanJam Investment Limited was a proud sponsor of the National Business Model Competition (NBMC). We are firm in our belief that youth entrepreneurship plays a vital role in enabling long-term economic growth, and all participants in the NBMC represent the unbridled potential of our home-grown talent. Our young entrepreneurs showcased business models designed to positively impact real-world inefficiencies in industries ranging from agriculture to construction. We continue to be excited to see their meaningful contributions to the Jamaican economy.”

Joanna Banks, Vice President, New Business Development & Strategy, PanJam Investment Limited

“The N.C.B. Foundation has been a supporter of the National Business Model Competition since its inception in 2014. We are proud of the success that our young Jamaicans have achieved at the national and the international level, including placing first and second in the world in 2018. As a foundation committed to nation building, we are particularly pleased with the number of student entrepreneurs, registered businesses, and employment provided as a result of this programme. We commend the Development Bank of Jamaica for spearheading this impactful programme. We look forward to continued partnership as we collectively strive to Build a Better Jamaica.”

Nadeen Matthews Blair, Chief Executive Officer, NCB Foundation and Chief Digital and Marketing Officer, NCB Group
Impact Potential

With the right impact evaluation matrix, progress towards projected impact can be estimated based on the current "student to start-up" conversion rate and improvements resulting from the recommendations offered in this case study. Further positive impact is likely based on efforts already underway to expand the number of participating universities. Exponential improvements are likely if the support infrastructure improves to attract, nurture and scale high potential ventures exiting the competition.

The following analysis (figure 8) highlights a conceptual framework for potential impact resulting from the NBMC. The scenario assumes a dedicated focus on developing market-creating innovations, the effects of which will start manifesting in 2021. The increase in participants will continue with the admission of new universities as it is expected that Caribbean Maritime University and the College of Agriculture, Science and Education will have teams enter the competition. Assuming the introduction of a dedicated organisation to manage the outcome of the NBMC, it is expected that there will be a notable increase in the conversion rate from student entrepreneurship to high-potential start-ups. Business formalisation will likely improve as these dynamic entrepreneurs seek financing to grow their businesses. Through better team formation from alumni members and access to capital; the start-up success rate will improve, resulting in more scalable enterprises that go on to become market-creating innovations.

The potential impact projected in the chart below could be affected by the lockdown resulting from COVID-19, and the subsequent economic implications. Since the COVID-19 effects cannot be projected precisely, it would be prudent to review the programme once economic conditions find its new normal.

Figure 8: Conceptual Framework for Potential Impact of the NBMC
To sustain the impressive growth of the NBMC and enhance its impact on the wider entrepreneurship and innovation ecosystem, the following recommendations are offered:

**Organizational Support**
Consideration should be given to spinning off an autonomous organisation so that it has the responsive agility to meet evolving market needs. This will require an agile organisational structure that embodies the Lean Start-up approach propagated through the NBMC; which allows the freedom to pursue audacious innovations, failing quickly and inexpensively, and pivot towards new approaches, without the constraint of the reputational risk which could hinder more mature organisation. Thus, such an organisation must be untethered from the bureaucracy of the more mature parent system which is obligated to its fiduciary mandate. DBJ could be a sponsoring investor, but efforts would be made to attract private investment and talent. The supporting organisation's mission should be aligned with existing initiatives to establish the Entrepreneurship and Innovation Ecosystem in Jamaica.

**Post Competition Support**
The organisation would establish a framework for supporting the participants who wish to pursue their entrepreneurial venture, beyond the NBMC. The organisation would assist entrepreneurs in accessing advance capacity building, strategy, financing, and mentorship programmes. The creation of an extensive network throughout the Caribbean; by replication or expansion with regional universities, could also be beneficial in achieving the longstanding goal of an expanded Entrepreneurship and Innovation Ecosystem in the region.

**Measure & Improve**
The organisation would also establish a formal Monitoring and Evaluation framework to track the performance and impact of the NBMC and, most importantly, its participants. This feedback mechanism will be critical to the continuous improvement of the competition and its impact.

If the key principle emanating from the development of the NBMC is harnessed and applied to develop market-creating innovation the BMC would be used as an effective mechanism for the transformation of the innovation and entrepreneurship landscape in Jamaica and the wider Caribbean.