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The Survival of Gauteng-Based Businesses after Business Incubation

By: Lesego Coretta Serwadi ¹, Anthea Amadi-Echendu ² and Cina Van Zyl ³

Abstract

Business incubation influences the long-term development and expansion of emerging enterprises in Gauteng, specifically their market sustainability following graduation from an incubation programme. The research problem investigated was that the long-term influence of business incubation practices on the survival of businesses post graduating from a business incubation programme is not traceable. A qualitative inductive approach employing semi-structured interviews was utilised. The focus was on incubatees who completed the incubation programme and have been out of the programme for more than six months. Data was also obtained from incubation practitioners using focus group interactions with a snowball sampling strategy. The business incubation theory examined the survival strategies to determine the relationship between incubation services and post-incubation entrepreneurship. The research findings indicate that incubators promote the development and market expansion of emerging entrepreneurs' post-incubation. A further analysis revealed that incubators remain deficient in mentoring strategies and securing of funding. This recommended that the development of a post-incubation monitoring and evaluation system is key for business incubators in Gauteng and the incubation programme should not only offer technical training, but also integrate the services of the incubatees into supplier development initiatives offered by their multinational stakeholders. Incubatees' businesses can be given preferential consideration by the incubator's stakeholders in the provision of services required by them.

Key Words: Business incubation, post-incubation, emerging businesses

1. Introduction

According to the theory of business incubation, the focus of business incubators is on assisting to nurture early-stage technology-based ventures to a level where they can seize business opportunities and compete in the market without further support (Ayaste, Kwahar & Iyortsuun, 2017). Incubators are regarded as effective policy instruments that facilitate entrepreneurial expansion by fostering new businesses throughout their developmental stages. Policymakers consider business incubators as optimal instruments for fostering the advancement of technology-driven and growth-focused businesses (Ayaste, et al., 2017). Incubation programmes are typically formed through public-private partnerships involving universities, industry and various government tiers; promoting technology transfer and product dissemination by nurturing innovative concepts into businesses, thereby enhancing regional economies through the establishment of new businesses (Mian, Lamine & Fayolle, 2016; Mian, 2021; Galbraith, McAdam & Cross, 2019).

¹ University of Lagos Business School, E-Mail: brmelizabeth1@gmail.com

² University of Lagos Business School, E-Mail: brmelizabeth1@gmail.com

³ University of Lagos Business School

However, monitoring of graduated incubatees or businesses should be taken into consideration for assessing the incubator's performance and the growth of businesses after graduating from an incubation programme. Empirical research should go beyond the incubation period, as only a few studies explore post-incubator performance of businesses. Graduation from a business incubation programme might be easy, but post-graduation survival may not be that easy (Barbeau, 2019; Alzaghal & Mukhtar, 2017; Ravichandran & Dixit, 2024; Guerrazzi, Andraz, Caetano, Serra & Scazziota, 2023). Globally, insufficient attention has been paid to what happens to the businesses when they leave the incubation programmes, do they survive at all (Schwartz, 2013)? Furthermore, there is minimal knowledge regarding the survival of businesses after they leave business incubation and what are the support-specific factors that determine the probability of survival or failure after graduation from the incubation programme from a global and local perspective (Wachira, Ngugi & Otieno, 2017).

In South Africa (SA), aspects of the successes and failures of these small business incubation programmes have been investigated by several researchers (Van der Spuy & Bornman, 2023; Mkhwanazi, 2023; Zhou & Zondo, 2023). Many of these studies consider the incubation period when evaluating the efficacy of business incubators, although there exists a significant lack in research about the post-graduation phase (Şchitoğlu & Özdemir, 2013; Lose & Kapondoro, 2020). Approximately 30% of businesses in SA failed in the post-incubation period, and the probability of a firm surviving a period of six years after graduation from an incubator is about 68% (Schutte and Barbeau, 2022:5). Failure rates post-incubation could be a result of the discontinued support from incubators (Schutte and Barbeau, 2022). Therefore, it is largely unknown as to whether incubation really acts to overcome the so-called resource deficiencies businesses face, particularly after they have graduated from business incubators. The research on which this study is based investigates whether incubators in Gauteng provide incubatees with adequate resources for sustained market sustainability after incubation. The National Small Enterprise Amendment Act 21 of 2024 aims to enhance support for small and medium businesses, particularly to ensure that the small enterprise and co-operative ecosystem is able to offer the most efficient business advice, business development services, investment support, business facilitation and incubator support (Department of Small Business Development, 2025; Hanauer, 2025). The goal is to create a solid foundation for nascent businesses that go through a support programme (Hanauer, 2025). Therefore, businesses that participated in a support programme can be distinguished from those that did not.

The data in this research article are derived from a broader exploratory study employing qualitative methods for data collection. This article will examine the survivability of businesses post-graduating from a business incubation programme, highlighting the distinctions between incubated entrepreneurs and those that did not participate in the programme, the differences are discussed in the following section. Conditions of graduating from a business incubation programme, the methodology utilised for the study will be analysed, followed by the research findings and recommendations.

1.1 Difference between Incubatees and Nascent Entrepreneurs (Non-Incubated Entrepreneurs)

The success of businesses takes considerable determination, consistency, time, well-defined ideas and determination. The difference between incubatees and nascent entrepreneurs that are not incubated are shown in Table 1.

Table 1: Difference between Incubatees and Nascent Entrepreneurs (Non-Incubated Entrepreneurs) (Source: own compilation)

Incubatees	Nascent Entrepreneurs
<p>An incubatee refers to an emerging entrepreneur, situated within the confines of a business incubator that has entered into an agreement with the business incubator to permit himself to develop and produce pioneering products.</p> <p>They have access to a suitable venue and are equipped with the necessary facilities and experience to achieve their goals and nurture their business concepts, thereby converting them into viable realities (Hewitt & Van Rensburg, 2020).</p>	<p>Individuals who are actively engaged in creating new self-owned or co-owned ventures. This venture has not paid salaries, wages or any other payments to the owners' businesses for more than three months (França, Frankenbach, Vereb, Vilarés & Moreira, 2021).</p> <p>They are constantly faced with challenges of shortage of raw materials, non-availability of power, inadequate working capital, limited market etc. In addition to the problems enumerated above, the micro enterprises face a number of other problems like inefficient management, non-availability of cheap power, the burden of local taxes etc. (Cheeroli & Kumar, 2018; Dzingirai, 2021).</p>

Following from table 1, a common characteristic between an incubatee and a nascent entrepreneur is that they are both start-ups and have the desire and the determination to grow beyond their existing state. A start-up business is a business, driven by innovation that sets out to do things that are different from the norm and normally with the use of technology (Kibuchi, 2016). Furthermore, a start-up is an innovative business that seeks to do different things with technology and scarce resources in the market (Audretsch, Colombelli, Grilli, Minola & Rasmussen, 2020).

Numerous difficulties currently impact the business landscape, including inequitable competition prevalent in various industries. There are also difficulties such as the high cost of doing business related to the market evolving into a global village. Many of these challenges experienced are not predictable (Kibuchi, 2016). Business incubation seeks to mitigate the obstacles encountered by start-ups to a large extent and facilitate market access for incubatees (Satyanarayana & Chandrashekar, 2019).

However, post business incubation, most nascent entrepreneurs have to apply the principle of the entrepreneurial value creation theory without any form of assistance with the hope that the skills and support gained from incubation programme will sustain them and reduce potential market failures (Kibuchi, 2016; Alon, Jaffe, Prange & Vianelli, 2020; Ko & McKelvie, 2018; Falk, 2024; Mungila, Hillemane, Satyanarayana & Chandrashekar, 2019). Graduation from a business incubation programme is contingent upon several factors, which will be clarified in the subsequent section.

1.2 Graduation from businesses incubation

Incubatees in business incubation programmes may graduate from incubator programmes for many reasons. The most common three reasons for graduation include outgrowing available incubator space, spending the maximum allowable time in the programme and achieving mutually agreed-upon milestones (Al-Mubarak & Busler, 2014; Mercer, 2021).

Although, in countries like Indonesia that possess a comparable economic landscape to South Africa, post-incubation performance measurement is conducted by academic institutions as start-up, spin-off and the output of academic entrepreneurship is a complex process (Tritoasmoro, Ciptomulyono, Dhewanto and Taufik, 2024). The Indonesian system utilises the lean start-up method, initially popularised by start-up development practitioners, that provides a pattern of start-up business

development with validated learning that rely on data feedback and support for agile development. However, the effectiveness of the university's incubation process and its support for start-up viability after incubation need to be continuously improved (Games, Kartika, Sari and Assariy, 2021; Tritoasmoro et al. 2024). Therefore, the search for an incubation management framework is a topic that is much needed to be further investigated. Exploration and search for the most suitable framework in an ecosystem is regarded as a necessity to increase incubation success.

According to Iacano and Nagano (2017), the efficacy of an incubator programme can be measured by the number of businesses that have successfully completed its programme within a designated timeframe. Graduation can indicate that a business has made use of the resources available at the incubator and has achieved a level of success and self-sufficiency that allows it to prosper on its own (Lalkaka, 2006, cited in Iacano & Nagano, 2017). According to Rambe (2022), graduated incubatees qualify as established rather than nascent ventures and have therefore outgrown the need of incubation. Incubators are considered successful when they assist their incubatees in accomplishing this objective. It should be noted that statistics regarding graduation from incubators are meaningful only if clear goals have been determined and criteria for graduation have been standardised (Eldering & Hulsink, 2021; Pairsuwan, 2023).

An incubator that graduates businesses that, for example, have found other sources of funding, cannot contribute to data about incubator success because such a criterion for graduation does not reflect the successful operation of the incubator (Peters *et al.*, 2009; Iacono & Nagano, 2017). In addition to graduating a significant number of businesses in proportion to its total number of clients, a successful business incubator should be able to demonstrate the continued success of graduated businesses over a specified period (Peters *et al.*, 2009; Iacono & Nagano, 2017; Eldering & Hulsink, 2021; Pairsuwan, 2023).

The performance of business incubation is measured by the growth and financial outcomes of the incubatee's business development stage at the point of incubator exit. According to research by Lewis, Harper-Anderson and Molnar (2011) as well as Lose, Nxopo, Maziriri and Madinga (2016), there are five mutually exclusive outcomes upon the conclusion of the incubation process:

- a) the business is surviving and developing profitably;
- b) the business is surviving and developing and is on a path toward profitability;

- c) the business is surviving but is not developing and is not profitable or is only marginally profitable;
- d) the business's operations were terminated while still in the incubator, but losses were minimised; or
- e) the business's operations were terminated while still in the incubator and the losses were large.

Historically, the literature has suggested that the first three outcomes are indicative of post-incubation success and the last two outcomes are indicative of failure (Lewis, Harper-Anderson & Molnar, 2011; Lose, Nxopo & Mazirir, 2016). Therefore, in investigating whether business incubation influences the long-term development and expansion of emerging enterprises in Gauteng, specifically their market sustainability following graduation from an incubation programme, a qualitative method of collecting data was utilised and is discussed in the following section.

2. Research Methodology

A qualitative methodology was followed during both the data collecting and data analysis phases of this research project. The reason for choosing this methodology was that, even though business incubation is a prevalent topic for research generally, there are limited data about South African incubators, particularly the survival of businesses post-incubation. Qualitative research questions focus essentially on three areas: language, actions and theory building through discovering patterns and connections in qualitative data (Dzogovic & Bajrami, 2023). The study employed a qualitative, inductive approach to provide the researcher with an inclusive understanding of the purpose of business incubators in the growth and development of nascent businesses following incubation.

The population for this study were Gauteng entrepreneurs who have graduated or exited the incubation programme in a period of more than six months as well as incubation managers, mentors and programme developers who have been employed for more than 18 months. The data were collected in three stages: (a) literature review, (b) interviews and (c) a focus group interaction was used through a snowball sampling method. The data on the number and details of post-graduated incubatees were sourced from the two operational incubators, one on the southern part of the Gauteng province and the other on the northern side of the province. A total of ten post-incubatees were interviewed and three focus group session were held with incubation practitioners before

saturation was reached. Each focus group session had a minimum of five participants and a maximum of eight participants. The data was gathered over a period of six months in 2024.

The location was limited to incubators in the Gauteng Province. Permission was sourced in a letter from the incubation manager to gain access to their list of graduated or exited incubatees. Signed gatekeeper letters were received from two business incubators. The researcher was also afforded an opportunity to present the purpose of her study to the management of both business incubators before gatekeeper letters were issued. Both business incubators first contacted the participants to seek their permission before interviews were scheduled with the researcher.

All research studies present several ethical and moral dilemmas, which must be identified and addressed prior to carrying out any research study to protect all participants from potential harm (Maciak, Pešta & Schindler, 2020). In this study, the researcher obtained consent from pertinent stakeholders, including incubation managers, policy developers and former incubatees; while ensuring the confidentiality of the information provided by respondents who will not be required to disclose their names. The researcher needed to seek ethical approval from the ethics committee (Xu, Baysari, Stocker, Leow, Day & Carland, 2020; Saunders and Townsend, 2016) at the University of South Africa that was subsequently approved.

All ethical protocols were followed in terms of privacy; all findings were presented confidentially, and no personal or identifiable information was documented or published. The researcher ensured regular reviews to ensure that only what the participants had given consent to was carried out; this is referred to as a procedure of consent, which enables the researcher to renegotiate features of the consent form derived from the changing description of inquiry (Hatch, 2023).

Fundamentally, analysing qualitative data entails coding which refers to categorising units of data into clusters that are internally coherent and that are conceptually distinct from one another. These categories ultimately become the concepts, the relationships and the proposed explanations for relationships that form the foundation for theory building. Both the interview and focus group data were analysed using content analysis verbatim transcription and open coding. The researcher utilised Colaizzi's (1978, cited in Praveena & Sasikumar, 2021) seven-step approach to descriptive data analysis

in analysing the transcripts. Once each of the interviews had been transcribed, the researcher uploaded the transcripts onto ATLAS.ti. The research findings are elaborated upon in the followings section.

3. Discussions and Findings of results

Based on aspects presented by the business incubation theory and the results of the conceptual and the empirical research, the following three themes on monitoring and business assistance intensity, barriers to entrepreneurship and aftercare support which will be further discussed.

3.1 Monitoring and business assistance intensity

According to Kemp (2013), monitoring and business assistance intensity (M&BAI), as per the theory of business incubation, refers to the degree to which the incubator observes and helps incubatees with the development of their businesses, including helping them to learn from low-cost failures and containing the cost of potential terminal failure.

Given the data collected through empirical research, the element of monitoring and business assistance was investigated through the lens of the business incubation theory. The monitoring and business assistance intensity theme is a cross-over theme for both interviews with post-incubatees and discussions with focus groups (incubation managers, coaches and programme developers). This theme created a base in creating an understanding of the incubator's efforts in the mentoring and enhancement of the incubatee's business and ultimately their performance after graduating from an incubation programme. However, the theme also has contrasting elements between post-incubatees and incubation managers. It assesses how a business incubator provides inputs into a nascent entrepreneur's business and in the same light it assesses how these inputs were viewed and received by post-incubatees.

Incubation practitioners indicated that they offer technical working spaces at a minimal fee, safety and compliance registration and training, business grading and support systems as well as infrastructure for prototype development (Mkhwanazi, 2023). In terms of technical skills, incubatees are taken through a NQF level 2 new venture creation and business accelerator development programme (Nyamurima, 2023). Participant 1FG of the first focus group session gave a detailed explanation: "We have programmes such as new venture creation and quality management systems so, this teaches them the basics of running a business and also being able to deliver quality services or products to their

customers. [...], under new venture creation which a NQF level 2, incubatees are taken through ten models that comprise of orientation to the new venture creation programme, here incubatees are introduced to the skills and strategies needed to succeed in new venture creation. Participant 4 explained: “During the prototype phase that was the time I met Incubation B and, they incubated me and then they helped with workshops and space and the development of prototype”.

The theme indicated aspects of creating networking opportunities for nascent businesses as participant 8 indicated that, although she received training regarding other aspects of her business, the incubation process in terms of creating access to markets and networks proved to be valuable for her. The contradicting element of the theme was that mentoring and coaching had limitations in terms of mentor and mentee relations. Mentoring can be described as a dyadic communication relationship consisting of verbal and non-verbal behaviours intended to offer or ask for help. When engaged in a dyadic mentoring relationship, mentors elaborate and convey supportive messages depicted as specific lines of communicative behaviour enacted by one party with the intent of benefiting or helping another (Auzina, Grinberga-Zalite, Cirule, Pilvere & Rivza, 2020).

In the mentor and mentee relationship, formation and communication are key factors, where post-incubatees indicated that, in cases where there are multiple mentors, communication became a major challenge. Post-incubatees from incubation programme A, where a multi-mentor approach was utilised indicated that a multi-mentor approach or the inconsistency in the provision of coaches and mentors did little or nothing in growing their businesses. Participant 5 explained: “The relationship should be based on the status of where you are as an incubatee, the incubator must understand the needs and the status of the business to be incubated” The monitoring and business assistance intensity theme indicated areas of lack which led to the development of a theme on barriers to entrepreneurship.

3.2 Barriers to entrepreneurship.

Khanin, Rosenfield, Mahto and Singhal (2022) describe barriers to entrepreneurship as circumstances that prevent opportunity realisation and/or opportunity pursuit. These challenges included competition, the domination of big or multinational companies, the lack of inclusion in laws to set equity and equality (B-BBEE) and the high costs of registering and maintaining patents. Participant 3 explained: “This engineering market doesn’t want us. As it currently exists, is dominated by rich

companies and they've been doing this business for years and they are going to do this business for years because they are still in control of it. So, we need to look at other places”.

Furthermore, all participants mentioned lack of capital as their biggest barrier. Participants indicated that financial institutions have created red-tape in approving funding for small businesses. Participant 2 said: “Importantly some of us we don't we don't have permanent employees precisely because of financial sustainability” Participant 7 further explained: “The contracts and short-term jobs that we bid for they don't come as often as you would want or as frequent as you would want. So, at times you, will sit for, say, six months, there's no big job, just a small job just to push and flow. But when you get a bigger key then you struggle with a capital. Now with our banks as well, you go to your bank day” Therefore; post-incubatees alluded to industry completion, dominance of multinational companies, regulatory requirements, lack of capital and a lack of infrastructure as key challenges facing their businesses after exiting or graduating from a business incubation programme. The theme on barriers to entrepreneurship indicated a need for further support post business incubation.

3.3 Aftercare support

The primary endeavour in organising the literature and empirical research concerning the application of incubation processes appears to be that of Hackett and Dilts (2004): The theory of business incubation seeks to explain how business incubators and the process of business incubation increase the likelihood that new businesses will survive the early stages of development. The theory conceptualises the incubator as an entrepreneurial business that sources and macro-manages the innovation process within emerging businesses, infusing these businesses with resources at various developmental stages while containing the cost of their potential failure. However, can the support go beyond an incubation period? After the period of business incubation, businesses ought to be financially viable and ultimately successful after graduating from the programme.

All representatives from the three incubators indicated that their doors are open to assist post-incubatees with any requirements they might have after graduating from the programme. However, the incubators do not have any formal programme or a monitoring and evaluation system in place that assesses the performance of companies after exiting the programme. The incubators offer exhibition and market linkage services to graduated incubatees when opportunities arise. The mentors have realised that the graduated businesses have a great need for growth capital, and it indicates a gap

in the incubation eco-system. Participant 4FG expounded: “The companies that graduate from the incubation programme mostly, we still have a very good relationship with them. So, most of them, because we don't have anything crafted for them in terms of post –graduation support. So, they basically, they just come to us seeking, you know, seeking opportunities. They might be looking for a particular, mostly customised assistance. So, it's mostly on the funding side on, getting introduced to a particular company, on, you know, hand holding to a meeting, to a fund meeting, to a potential investor” therefore, formalised business incubation ends when a business graduated from the programme.

3.4 Discussion of findings

The empirical data indicates that post-incubatees from the Gauteng based incubators received coaching and mentorship on the skills and techniques essential for successful venture creation. Businesses of post-incubatees continue to operate and are utilising the abilities acquired throughout the incubation phase. Business incubation programmes offered guidance regarding vital entrepreneurial traits and emphasised the necessity for analytical, creative and innovative thinking required for business success. The incubation programme provided incubated businesses with the knowledge to minimise external costs associated with obtaining services from lawyers, accountants and investment advisors. The supply of infrastructure was a crucial factor that facilitated internal networks and the survival of businesses during and after incubation.

The businesses of all post-incubatees that participated in the research study are still operating, although some have diversified into other industries and markets; therefore, business incubation processes provided incubatees with sufficient resources for growth and development post-incubation. This led to a finding that entrepreneurs find it difficult to sustain their entrepreneurial development and growth post incubation and require the services of a solid post incubation aftercare Furthermore, incubators are deficient in their ability to create financial opportunities for incubatees through and after the incubation period. The deficiency of financial resources for capital or market penetration was a significant obstacle. Post-incubatees are encountering difficulties in obtaining capital to maintain and grow their businesses due to the red-tapes and / or compliance demands such as the ability to produce sufficient collateral and to have a good credit standing. These red tapes are set by government and financial institutions.

Contributing factors to the lack of access to finance included the absence of suitable finance products available to incubatees and post-incubatees, the lack of credit information, the supposed riskiness of funding post-incubatees and the apparent lack of assets available for the purposes of collateral. All of these issues reduced the availability of funds and increased the cost of credit for post-incubatees. Furthermore, the lack of access to external funding sources for innovation and expansion caused post-incubatees to focus on promoting innovation and marketing their businesses at relatively low levels or alternatively, diverting from their original ideas into areas of low risks that do not require extensive funding. This constitute, for them, a means of minimising the risks associated with innovation and shows a limitation on the skills that were imparted during an incubation process. This led to the following findings:

- There are limited funding opportunities for nascent entrepreneurs to advance their business development needs after graduating from a business incubation programme.
- The regulatory requirements in South Africa can create bureaucracy which negatively affects businesses after they leave the business incubation process.

4. Conclusion

Business incubators are developed with the end in mind, to grow sustainable and viable businesses. Therefore, in investigating the long-term influence of business incubation practices on the survival of businesses post graduating from a business incubation programme and whether businesses survive post-graduating from a business incubation programme, the findings of the research study indicated that incubators enabled nascent entrepreneurs to develop and grow their businesses in the market post-incubation. Although, in further accessing whether incubators in Gauteng provide incubatees with adequate resources for sustained market sustainability after incubation, the findings of the study indicated that incubators are still limited in the provision of mentoring strategies and the acquiring of funding is a challenge for post-incubatees.

The incubation process had a high level of business assistance intensity, which was evident in that all post-incubatees that were interviewed managed to stay in business for more than two years and are continuing to seek further assistance from the incubators when needs arise. However, the success and sustainability came with challenges as most post-incubatees struggled with adhering to market and

industry-specific requirements for their original business ideas. In some cases, the dominance of multinational companies made it difficult for post-incubatees to penetrate key industries.

Furthermore, the majority of post-incubatees have diversified from their original business concepts into industries that require less specialisation, and the regulatory requirements are minimal. The stiff local bureaucracy and business industry compliance requirements set by the South African regulatory bodies made it difficult for the post-incubatees to penetrate industries they specialise in. However, the diversification approach led to minimal profit being earned. The research study therefore recommends that, the incubation programme should not only offer technical training, but also integrate the services of the incubatees into supplier development initiatives offered by their multinational stakeholders. Incubatees' businesses can be given preferential consideration by the incubator's stakeholders in the provision of services required by them. Preferential consideration by major stakeholders can serve as an inclusion into the industrial value chains of key technology and innovation industries.

An additional recommendation is that national and international development finance institutions (DFIs) are specialised development banks or subsidiaries set up to support private sector development in developing countries. These banks should consider funding post-incubatees' businesses because incubatees have proven their entrepreneurial capabilities by completing an incubation programme.

Future research should incorporate further qualitative and quantitative studies in the domain of post-business incubation, with a particular focus on financing the sustainability of post-incubatees' businesses. The business incubation process has resulted in the formation of an entrepreneurial value creation chain, as post-incubatees are now capable of taking risks and transforming their technological innovations and ideas into viable products and services. The outcomes of the entrepreneurial value-chain development process are clear, since all post-incubatees' businesses are still operational, with some having entered international markets and employing staff.

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6. Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

7. Authors' contributions

This article is part of a larger PhD study. LCS conceptualised the study, collected data, analysed the results, and wrote the first draft of the article. A.P.A.-E. and CVZ supervised the study, providing guidance and editorial updates to the article after its completion.

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9. Data availability

The data that support the findings of this study are available from the corresponding author, A.P.A.-E upon reasonable request.

10. Disclaimer

The views and opinions expressed in this article are those of the authors and are the product of professional research. It does not necessarily reflect the official policy or position of any affiliated institution, funder, agency or that of the publisher. The authors are responsible for this article's results, findings and content.

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