



Research Article

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Role of Incubation Centers in Promoting Sustainable Development in Nigeria

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Abstract

Incubation centers play a vital role in the sustainable development of an economy. To promote the entrepreneurial ecosystem and innovation in Nigeria, the government has taken initiatives by establishing incubation centers. The present study explores the role played by incubation centers' in Nigeria and the problems and challenges perceived by incubation centers and incubatees. The purpose of the present study is also to explore suitable strategies which can bring in sustainable development and helps to ensure entrepreneurs a promising future in the state of Kano. Only a few existing studies have worked on the perspective of incubation centers and incubatees. The present study prepares a questionnaire using a Likert scale to collect the responses using a convenience sampling technique. Henry Garrett Ranking Technique is used to find the most alarming challenges and the incubatees' expectations from incubation centers' services. The rank-order outcomes of the study have clearly shown that developing a business plan, supporting product design and prototype, access to finances, and providing workforce and skill-based training to incubatees are the priority support services. An incubation center expects to provide these services to its incubatees. Incubatees are not satisfied with incubation centers' services like conducting workshops/trade fairs, product development activities/laboratory arrangements, taking periodic feedback about incubator services, and the skills of trained staff of the incubation centers. The incubatees perceived that the incubation center in Kano is highly dependent on the quality of the manager for the services provided to incubates. For the effective outcome of incubation centers, training and mentoring should be assessed periodically by an external evaluator using an outcome-based approach. All such efforts will result in the real growth of incubation centers and their role in promoting innovation and entrepreneurship.

Keywords: Incubation, incubatee, innovation, sustainable development, entrepreneurship, Nigeria

1. Introduction

Entrepreneurship development is vital for achieving sustainable economic development of an economy. One of the United Nation's sustainable development goals (SDG 9) is industry, innovation, and infrastructure. Governments have adopted several initiatives to achieve this goal and develop entrepreneurship. One such initiative is the establishment of incubation centers to play a vital role in nurturing entrepreneurship and innovation. An incubator is an enterprise that supports entrepreneurs in the early set-up to survive and carry out business activities by providing them with space and equipment (Appel-Meulenbroek, Weijs-Perree, and Orel, 2020; Bouncken & Reuschel, 2018; Bouncken & Kraus, 2021; Rese, Gorman and Herbig 2021; Oswald & Zhao, 2020). Incubation centers operate in clusters to support innovative business ventures (Charry, Perez, and Barahona, 2014). Joseph Mancuso created the first known incubator in New York in 1957 to develop entrepreneurship (O'Neal, 2005).

Entrepreneurship or entrepreneurs are the foundation for the economic growth of any nation, especially SMEs (Chen, Yin, and Zhu 2003). Past research argued that entrepreneurs who get help from incubation centers prepare to transform a company into a successful new venture (Ratinho & Henriques, 2010; Lewis, 2010). The primary role of an incubation center is to reinforce the survival, existence, and success of entrepreneurial ventures (Hausberg & Korreck, 2020). Sillitoe and Chakrabarti (2010) reiterate that an entrepreneur's interaction with incubator managers can help reduce the uncertainty of new ventures and ensure their survival and growth.

Incubation centers deliver a complete solution to innovators and visionaries in fostering their thoughts, abilities, and information for establishing start-ups. Incubation centers also provide specialized assistance and customized counseling to the needs of entrepreneurs and help in their success (Lewis, Harper-Anderson, and Molnar, 2011). Incubators have classified into two types: first, based on their sponsors or funding (Becker & Gassmann, 2006), and second, based on the objectives behind setting up the incubator (Aernoudt, 2004). Earlier incubation centers establish to put to productive use old and unoccupied manufacturing buildings. Later, incubation centers were established and funded by university-led centers of excellence for entrepreneurship and innovation (Ravi Kiran & Bose, 2020) and entrepreneurs that sought technology transfers (Ayatse, Kwahar, and Iyotsuun 2017).

New ideas and innovation need special attention and assistance to survive and compete in business (Phillips, 2002). In the present-day context, incubation centers work multi-fold to nurture innovation and entrepreneurship (Bouncken & Kraus, 2021). Incubation centers help start-up ventures to resolve problems like access to assets, access to logical information, and issues of skill gap (Deyanova, Brehmer, and Lapidus, 2022). Incubation centers provide emerging entrepreneurs with tangible and intangible resources (Marijin, Frank, Menno, and Moors, 2020). The services provided by incubation centers can classify into strategic services, operational services, and infrastructure services (Elena, 2015). Strategic services in the incubation centers include working with the business plan and business model development, investor and strategic partner linkages, marketing, and financing options, links to higher education institutions, intellectual property, and product development. Operational services majorly include networking and human resources management. Infrastructure services include high-speed internet access, conference rooms, shared services, and on-site amenities to facilitate production activities without interruption. These services help the incubates focus on core business activities (Hackett & Dilts, 2008; Al-Mubarak, Busler, Al-Ajmer, and Aruna, 2013; Lose and Tengah, 2015). Incubators also provide appropriate policy tools for entrepreneurial skill development and business promotion (Jibrin, Makoto, and Amony, 2013). The quality of the services that the incubators provide to the incubatee entrepreneur depends mainly on the incubator managers' knowledge and competencies, as well as the networking they bring to the incubatees (Grimaldi & Grandi, 2005). As not all entrepreneurs have the required skills, the incubator is a ready-made facility to help with the required skills through its embedded support services (Costello, 2016).

In emerging nations, incubation centers receive tremendous support through subsidies and financial grants from the Government (Obaji, Aslan, and Cameron, 2014). Nigeria is not an exception in creating an entrepreneurial ecosystem to support start-up enterprises through various policies and programs, including incubation centers. The incubator expects to play a critical role in encouraging entrepreneurship through skills transfer and technology synergy among incubatee entrepreneurs (Olufemi, Abiodun, and Johnson, 2020). Although there has been some research about the role and performance of incubators in the existing literature (OECD, 2019; Rice, 2002; Bergek & Norrman, 2008; Ozdemir & Sehitoglu, 2013), the incubators in developing countries lack the essential skills to contribute to the development of entrepreneurs (Akcomak, 2009).

On one side, studies found an increased interest in the role of incubators in promoting new businesses and anticipating the mortality of new business ventures (Ratinho & Henriques, 2010; Hausberg & Korreck, 2018; Aerts, Matthyssens, and Vandenbempt, 2007). On the other side, studies on incubators in developing nations found that incubators face several challenges, like a lack of entrepreneurial abilities, the need for venture capital, the poor growth rate in the economy, a fall in productivity, an aging population, downsizing, and the need for innovative ideas (Al-Mubarak & Busler, 2015; Amezcua, 2010; Harper-Anderson, and Lewis, 2018; Bergek & Norrman, 2008; World Bank Report 2020).

The past literature emphasized incubation and its features, distinctive types, practices and approaches, and effect on firms and local economies. The existing research studies business incubation in Nigeria from the perspective of incubatees, but only a few comprehensive studies have taken place on incubation centers, especially in Kano. The focus of the present study is the perception of incubatees on issues and challenges of incubation centers in promoting entrepreneurship in the state of Kano, Nigeria. The present study also explores suitable strategies that incubation centers can implement to help entrepreneurs have a promising future in Kano.

2. Method

The present study aims to emulate the existing literature on the perception of incubatees on the role of incubation centers in promoting entrepreneurship and innovation. It also aims to identify the issues and challenges faced by incubatees in the Kano state of Nigeria. There have been many studies about incubation, focusing on one side of incubation, i.e., the needs and challenges of incubatees. Against this backdrop, the present study also researched the challenges faced by incubators in the Kano state of Nigeria. The objectives of the study are:

- To identify the role and services rendered by the incubation centers to promote entrepreneurship to hone the entrepreneurial skills of incubatees
- To examine the level of satisfaction of incubatees on the role of incubation centers in promoting business ventures in the state of Kano, Nigeria.
- To elicit the problems and challenges faced by incubation centers and incubatees
- To provide possible suggestions for better incubatee services and promote regional entrepreneurship.

The responses for the present study are incubatees and employees of incubation centers. The total number of incubation centers in Kano is 106, and the present study collected data from 60 respondents with the help of a structured questionnaire. The responses to the questions are based on the Likert scale. The researcher selected the convenience sampling method. The research considers the study period from March 2022 to June 2022. Henry Garrett Ranking Technique explores the challenges and expectations of the incubatees.

3. Analysis and Results

To study the perception of incubatees on the problems and challenges faced, the variables considered are a measurement of the opinion of incubatees on the various support systems provided by

incubation centers. Variables are the role and services rendered by the business incubators for the entrepreneurship development, the level of satisfaction that affects the success and failures of start-ups from the viewpoint of the incubation centers, problems and challenges faced by incubation centers, problems, and challenges faced by incubatees and suggestions given by incubatees to enhance services of incubation centers.

Demographic variables play an essential role as this study mostly deals with issues and challenges of business incubation centers. The variables chosen for the analysis are gender, age, educational qualification, occupation, and monthly income of the respondent incubatees have been considered for this study.

Table 1: Demographic Profile of the Respondents

Demographic Profile	Category	Frequency	Percent
Age	Below 25 years	15	25
	26-35 years	37	61.7
	36-45 years	5	8.3
	Above 46 years	3	5
Gender	Male	37	61.7
	Female	23	38.3
Educational Qualification	Diplomas	18	30
	Bachelor's Degree	33	55
	Masters	5	8.3
	Professional Course	3	5
	Engineering	1	1.7
Monthly Income	Below \$250	37	61.7
	\$250-\$350	12	20
	\$350-\$450	4	6.7
	\$450-\$550	2	3.3
	Above \$550	5	8.3
Experience	Below five years	28	46.7
	6-10 years	20	33.3
	11-15 years	4	6.7
	16-20 years	3	5
	Above 20 years	5	8.3
Total For Each Segment		60	100.00

Source: Primary data

As shown in Table 1, the demographic profile of the respondents is as follows. Regarding age, 61.7 percent of the respondents fall in the age group of 26-35. The gender composition of the respondents 61.7 percent are male, and 38.3 percent are female. The majority of them (55 percent) have a bachelor's degree, have a monthly income of below \$250 (61.7 percent), and have a business experience of below five years (46.7 percent).

Table 2: Measurement of the opinion of Incubatees on the various support systems provided by Incubation centers

Type of support systems	Responses in percentage
Business Support	26.7 %
Technical Support	3.3 %
Financial Support	40 %
Training support	25 %
Physical Support	5 %

Source: Primary data

It was evident from Table 2 that the majority of incubatees (40 percent) faced problems with a lack of financial support, 26.7 percent of incubatees experienced pressure due to a lack of business support, 25 percent of incubates faced the need for training and support from the incubation centers followed by lack of physical and technical support. It indicates that most incubatees faced financial difficulties at the incubation center in Kano, followed by training and support in the form of networking. The incubation centers must tie up with banks and angel investors to support the incubatees. The incubation centers need to promote incubation with angel investors to reduce the mismatch of expectations between both parties. Training and networking are vital for incubatees in fostering young firms in their most vulnerable phase with the incubation centers (Aernoudt, 2004). The incubation centers should work on building information networks and implementing realistic plans.

Table 3: The role and services rendered by the business incubators for the entrepreneurship development

S No.	The role and services rendered by The Business Incubators for the Entrepreneurship Development	Level of Influence			Mean	Standard Deviation
		Agree	Neutral	Disagree		
1	Helps the tenant companies in developing business ideas, plans, and feasibility study	46 (76.67)	8 (13.33)	6 (10)	2.66	2.14
2	Secretarial services to tenant companies	30 (50)	19 (31.67)	11 (18.33)	2.31	1.73
3	Technical assistance to tenant companies.	34 (56.67)	16 (26.67)	10 (16.67)	2.40	1.84
4	Provides marketing assistance to tenant companies	33 (55)	20 (33.33)	7 (11.67)	2.43	1.81
5	Provides legal services to tenant companies.	30 (50)	18 (30)	12 (20)	2.30	1.73
6	Provides networking support to tenant companies (e.g., with suppliers/customers/banks)	31 (51.67)	20 (33.33)	9 (15)	2.36	1.76
7	Provides human resource management services to tenant companies	33 (55)	15 (25)	12 (20)	2.35	1.81
8	Assists tenant companies in obtaining statutory and company registration approvals	34 (56.67)	18 (30)	8 (13.33)	2.43	1.84
9	Assists the tenant companies in product development activities/laboratory arrangements	28 (46.67)	20 (33.33)	12 (20)	2.26	1.67
10	Helped the tenant companies to establish credibility	30 (50)	24 (40)	6 (10)	2.40	1.73
11	Conducting entrepreneurship promotion programs such as workshops/trade fairs	28 (46.67)	20 (33.33)	12 (20)	2.26	1.67
12	Takes periodic feedback about tenant companies' satisfaction with incubator services	29 (48.33)	19 (31.67)	12 (20)	2.28	1.70
13	Minimized the chances of failure of tenant companies	32 (53.33)	19 (31.67)	9 (15)	2.38	1.78
14	Helps in raising funds and seed capital	30 (50)	19 (31.67)	11 (18.33)	2.31	1.73
15	Incubation Centre staff get trained in business skills like finance, budgeting, and organizational analysis.	29 (48.33)	21 (35)	10 (16.67)	2.31	1.70

Source: primary data

Table 3 shows the role and services rendered by the business incubation center for creating entrepreneurial ecosystems in Kano, Nigeria. Most incubators agreed that incubation centers help tenant companies develop business ideas, plans, and feasibility studies, with the highest mean of 2.66. Incubatees more or less agreed about secretarial services to tenant companies (mean=2.31), Technical Assistance (mean=2.40), marketing assistance (mean=2.43), legal services (mean=2.30), networking support (2.36), providing human resource management services (mean=2.35), assistance to tenant companies in obtaining statutory and company registration approvals (mean=2.43), assist in

product development (mean=2.26) to establish credibility to tenant companies (mean=2.40), conducting workshops (mean=2.26), periodic feedback of tenant companies (mean= 2.28) and minimizing chances of failure (mean=2.38). Incubatees are not satisfied with the incubation center's provided services like conducting entrepreneurship promotion programs such as workshops/trade fairs, assisting tenant companies in product development activities/laboratory arrangements, periodic feedback about incubator services, and the skills of trained staff of the incubation centers.

Table 4: Level of Satisfaction that will affect the success and failures of start-ups from the viewpoint of the incubation centers

S No.	PARTICULARS	Level of Satisfaction			Mean	Standard Deviation
		Satisfied	Neutral	Dissatisfied		
1	Meeting product and service objectives (concept to commercial acceptance)	34 (56.7)	18 (30)	8 (13.3)	2.43	1.84
2	Meeting financial objectives (Break even, Angel investments, Government, Banks, and Venture capital)	26 (43.3)	28 (46.7)	6 (10)	2.33	1.61
3	Acquiring skilled employees sound in technical and administrative	28 (46.7)	20 (33.3)	12 (20)	2.26	1.67
4	Gaining acceptance from Customers / Getting more orders, growth trend of sales	24 (40)	26 (43.3)	10 (16.7)	2.23	1.54
5	Access to infrastructure (Office space, labs, & testing facility)	24 (40)	24 (40)	12 (20)	2.20	1.54
6	Access to Legal / IPR support	24 (40)	23 (38.3)	13 (21.7)	2.18	1.54
7	Availability of project trainees / part-time employees	25 (41.7)	20 (33.3)	15 (25)	2.16	1.58
8	Right direction at an early stage and business model improvement	26 (43.3)	22 (36.7)	12 (20)	2.23	1.61
9	Managing Accounting, Tax, Financial related matters	25 (41.7)	21 (35)	14 (23.3)	2.18	1.58
10	Plan for creative advertising plan for promoting the products	30 (50)	19 (31.7)	11 (18.3)	2.31	1.73

Source: primary data

Table 4 shows the level of satisfaction that will affect the success and failures of start-ups from the viewpoint of the incubation centers. The incubation center feels that the incubates performed well in creative advertising plans to promote their products (mean=2.43). The incubators are not so impressed with the incubatees ability to gain acceptance from customers and their ability to get more orders and sales, their access to infrastructure and shared services, manage accounting, tax and financial matters, access to legal support and availability of project trainees or part-time employees which are rated low compared to other factors.

Table 5: Problems & Challenges Faced By Incubation centers in Kano, Nigeria

S No.	Problems And Challenges Faced By Incubation centers	Level of Influence			Mean	Standard Deviation
		Agree	Neutral	Disagree		
1	Difficulty in registration into the Incubator Centre	30 (50)	16 (26.7)	13 (21.7)	2.28	1.73
2	Lack of funding is a major problem faced by Start-ups	38 (63.3)	15 (25)	7 (11.7)	2.51	1.94
3	Fulfilling the statutory policy, rule, and regulations of the Govt. affects the working of start-ups, documentation	31 (51.7)	16 (26.7)	13 (21.7)	2.30	1.76
4	Inconsistency in mentoring and advisory support	31 (51.7)	21 (35)	8 (13.3)	2.38	1.76

5	Difficult in finding the appropriate business skills	25 (41.7)	23 (38.3)	12 (20)	2.21	1.58
6	Difficult in finding appropriate market and customers for the product	24 (40)	20 (33.3)	16 (26.7)	2.13	1.54
7	Achieving self-sustaining business operations	32 (53.3)	19 (31.7)	9 (15)	2.38	1.78
8	Insufficient technical & business skills in the local community	31 (51.7)	17 (28.3)	12 (20)	2.31	1.76
9	Tough in Obtaining funding for incubator operation	25 (41.7)	23 (38.3)	12 (20)	2.21	1.58
10	Inconsistent in stakeholder support	32 (53.3)	15 (25)	13 (21.7)	2.31	1.78

Source: Primary data

Table 5 depicts the result of the survey regarding the problems and challenges incubation centers face in nurturing new ideas and transforming them into successful start-ups. According to the survey, it can perceive that the major challenge faced by start-up incubates is lack of funding (mean=2.51) and achieving self-sustenance in business operations, and inconsistency in stakeholder support (mean=2.38). The incubation centers should search for alternative sources of financing, like venture capital firms, to fund new ventures in the nascent stage to address this issue. The least negligible challenges are finding the appropriate business skills (mean=2.13) and finding the appropriate market and customers for the product (mean=2.13).

Table 6: Problems and Challenges Faced by Incubatees in Kano, Nigeria

S No.	Problems and Challenges Faced By Incubatees	Mean Score	Rank
1	Difficulty in registration into the Incubator Centre	7.90	7
2	Lack of funding is a major problem faced by Start-ups	8.42	2
3	Fulfilling the statutory policy, rule, and regulations of the Govt. affects the working of start-ups, documentation	8.14	3
4	Inconsistency in mentoring and advisory support	8.45	1
5	Difficult in finding the appropriate business skills	7.62	9
6	Difficult in finding appropriate market and customers for the product	7.23	10
7	Achieving self-sustaining business operations	8.08	4
8	Insufficient technical & business skills in the local community	8.05	5
9	Tough in Obtaining funding for incubator operation	7.96	6
10	Inconsistent in stakeholder support	7.87	8

Source: Primary data

According to Henry Garrett's Ranking Technique, incubatees need more consistency in mentoring and advisory support. The perception of incubatees is that there are many discrepancies in the mentoring and advisory support received by incubatees is ranked at number 1 based on a mean score of 8.45. Secondly, the incubatees suffer from a lack of funding, with a mean score of 8.42, followed by fulfilling the statutory rules and regulations of the government, which affects the working of start-ups and documentation, with a mean score of 8.14. According to the perception of incubates, finding appropriate markets and customers for the product takes time and effort. Moreover, they can find the appropriate business skills easily.

Table 7: Suggestions were given by incubatees to enhance the services of incubation centers

S No.	Incubatees gave suggestions to enhance the services of incubation centers.	Level of Influence			Mean	Standard Deviation
		Most Required	Required	Somewhat Required		
1	Developing Business Plan	39 (65)	11 (18.3)	10 (16.7)	2.48	1.97
2	Reduce early-stage operational cost	26 (43.3)	26 (43.3)	8 (13.3)	2.30	1.61
3	Latest information on machine and equipment updates	28 (46.7)	21 (35)	11 (18.3)	2.28	1.67
4	Effective marketing assistance	29 (48.3)	20 (33.3)	11 (18.3)	2.30	1.70
5	The effective legal support	24 (40)	24 (40)	12 (20)	2.20	1.54
6	Mentoring support and advice	28 (46.7)	19 (31.7)	13 (21.7)	2.25	1.67
7	A pre-financial management plan, including accounting and taxation	28 (46.7)	21 (35)	11 (18.3)	2.28	1.67
8	Effective mentorship and R&D support	30 (50)	19 (31.7)	11 (18.3)	2.31	1.73
9	Assistance with product design and prototype support	30 (50)	21 (35)	9 (15)	2.35	1.73
10	Effective support on workforce and skill-based training	33 (55)	16 (26.7)	11 (18.3)	2.36	1.81

Source: Primary data

Table 7 illustrates the suggestions offered by incubatees to enhance the services of incubation centers. Based on the mean scores, it can infer that the incubation centers should offer services in the order of priority, starting with about development of a business plan (2.48), providing manpower and skill-based training to incubatees (2.36), product design, and prototype support (2.35), mentoring and R&D support (2.31), marketing assistance and reduction of operating costs (2.30), updates on machine and equipment and accounting and taxation (2.28) and mentoring support and advice (2.25).

4. Analysis & Discussion

From the analysis, it is clear that most incubatees faced financial difficulties at the incubation center in Kano, followed by training and support in the form of networking. The incubation centers must tie up with banks and angel investors to support the incubatees. The incubation centers should work on building information networks and implementing realistic plans.

The incubatees are satisfied with the overall role and services rendered by the incubation centers for creating entrepreneurial ecosystems in the state of Kano, Nigeria. Most incubatees agreed that incubation centers help tenant companies develop business ideas, plans, and feasibility studies, with the highest mean of 2.66. Incubatees are least satisfied with incubation centers in providing the services like conducting entrepreneurship promotion programs such as workshops/trade fairs, assisting in product development activities/laboratories, and providing feedback about incubator services and the skills of trained staff of the incubation centers.

The level of satisfaction will affect the success and failures of start-ups from the viewpoint of the incubation centers. The incubation center feels that the incubatees performed well in creative advertising plans to promote their products (mean=2.43). The incubators could be more impressed with the incubatee’s ability to manage accounting, tax, and financial matters, access to legal support, and availability of project trainees or part-time employees, which are rated low compared to other factors. It implies that incubation centers expect to improve their support in the above areas.

According to the survey, it can perceive that the major challenge faced by start-up incubatees is a lack of funding and achieving self-sustenance in business operations and inconsistency in stakeholder support. The incubation centers should search for alternative sources of financing, like venture capital firms, to fund new ventures in the nascent stage to address this issue. The least negligible challenges are finding the appropriate business skills (mean=2.13) and finding the appropriate market and customers for the product (mean=2.13).

According to Henry Garrett's Ranking Technique, incubatees need more consistency in mentoring and advisory support. The perception of incubatees is that there are many discrepancies in the mentoring and advisory support received by incubatees. Secondly, the incubatees need more funding followed by fulfilling the statutory rules and regulations of the government, which affects the working of start-ups. The incubatees are highly satisfied with the support in finding appropriate markets and customers for the product and the appropriate business skills.

Based on the perception of the influence of services offered by incubation centers for improved performance, it can infer that the incubation centers should continue to offer services in the order of priority, starting with the development of the business plan, providing manpower and skill-based training to incubatees and providing assistance with product design and prototype support.

5. Suggestions and Practical Implications

The present study focuses on the issues and challenges of the incubation centers in Kano, Nigeria, as perceived by the incubatees. The research findings will be useful for bringing in changes for developing a robust incubation process, identifying prospective entrepreneurial ideas, and developing a knowledge base and expertise for incubation management. The findings of the research study will result in the promotion of entrepreneurial activities and increase the survival rate of small businesses in Nigeria. The research will also help in well-examined and completely researched ways of improvement and advancement for start-ups provided certain improvement measures. This study will help the incubation centers to give the required improved support for start-ups and develop a framework for the entrepreneurial venture of incubatees in capacity building. The study is limited to incubators physically present, i.e., Incubation Centres in the Kano state of Nigeria. The study did not cover other factors, such as industrial climate, team dynamics, and the team's capability, that might affect the performance and success of a start-up, as discussed by past studies. The study confines issues and challenges in incubation centers in Kano state only in Nigeria, which cannot be generalized to the challenges of incubation centers and incubatees in other states of Nigeria.

Incubation centers identify budding entrepreneurs and support them to start their businesses with adequate seed capital for meeting societal and community needs or demands. Research and development, especially new product design facilities or experts, is required. Lack of sufficient electricity and knowledge is present in the incubation Centre in Kano. A feasibility study is very important to any initiative and managerial awareness. The government should intervene & provide sophisticated technologies to incubation centers. The government should provide essential equipment and working materials, good and qualitative workers, and punctual and hardworking workers. All these efforts will result in cumulative positive outcomes, the real growth of incubation centers, and their role in promoting innovation and entrepreneurship.

6. Conclusion

This study has reflected on the perception of incubatees on the role of incubation centers in starting successful start-ups and the challenges incubation centers and incubatees face in the process. The research was exploratory and indicated the role and support of incubators in promoting entrepreneurship. The major challenge faced by incubation centers is from angel investors in financing the start-up. This challenge is due to an expectation mismatch between the output of the incubator and the angel investor's expectations. The incubation centers should search for alternative financing sources, like venture capital firms, to fund new ventures in the nascent stage. The study observes that many start-ups want to simplify the registration process and efficient tax management. The incubation centers need more stability of resources. The incubatees perceived that the incubation center in Kano is highly dependent on the quality of the manager for the services provided to incubatees. The level of satisfaction of incubatees respondents towards successful start-ups from the incubation centers is meeting product and service objectives and concept to commercial

acceptance. The lowest mean score was with access to infrastructure (Office space, labs, & testing facility), where the incubatees are unhappy with the services offered by incubation centers. On investigation, the study finds that incubators play a vital role in the success of incubatees. The role of incubators can be enhanced by following successful incubation models in developed countries, such as the case of the Austin Technology Incubator (Wiggins & Gibson, 2003). For the effective outcome of incubation centers, training and mentoring should be assessed periodically by an external evaluator by an outcome-based approach. Another concern is the space and place of incubation centers and the infrastructure requirements. There is a need for the government to act and intervene in the Kano incubation center by providing incubatees with access to new technology and markets. The incubation center needs updated technology, more employees, and production space. The government should work towards creating new modern incubation techniques that will contribute to the improvement of the centers and design programs, which can emphatically impact the performance of incubators in terms of contribution towards the country's economic development.

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