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BUSINESS PROCESS REENGINEERING AND THE GROWTH OF ENTREPRENEURSHIP IN AKWA IBOM STATE, NIGERIA

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Abstract

Today's dynamic business environment exerts pressures on entrepreneurs to rethink and drastically redesign their business processes for realization of transformative improvements. This study was conducted to examine the impact of Business Process Reengineering (BPR) on the growth of entrepreneurship in Akwa Ibom State. Specific objectives were to investigate the effect of two key variables of BPR namely process innovation and process redesign on entrepreneurship growth in the state. Entrepreneurship growth was measured using growth indicators such as number of new business registered each year, business survival rate, and revenue growth rate. Two null hypotheses were formulated to guide the analysis and interpretation of data in the study. Descriptive research design was adopted in utilizing secondary data from 2015 to 2024. The study covered all registered businesses in Akwa Ibom State. We used purposive sampling technique to select relevant data for the study. The data were sourced from National Bureau of Statistics (NBS), Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and Akwa Ibom State Ministry of Trade and Investment Reports. Tool of analysis was and simple Linear Regression Analysis. The results revealed that process innovation and process redesign had significant effect on entrepreneurship growth in Akwa Ibom State. It was concluded that BPR had significant and positive effect on the growth of entrepreneurship in the state. It was recommended among other things that entrepreneurs in the state should be supported with access to BPR tools such as cloud platforms, automation software and digital payment system.

Keywords: *Business, Entrepreneurship, Growth, Innovation, Reengineering*

1. INTRODUCTION

For many decades, entrepreneurs in developing economies have been confronted with the pressures of dynamic business environment of which they operate. Certain environmental forces have continued to pose threats to the growth of entrepreneurship in this region such as technological advancement, competitive marketplace, economic changes, influence of globalization, shift in consumer preferences and the impact of COVID-19. A more compelling forces are the business internal environment that is witnessing important modification in equipment, software and techniques used in production processes. As a response to this, Obialor et al (2024) say that businesses are forced to rethink their processes in a bid to achieve customer satisfaction. Business process reengineering is thus an innovation model that enables entrepreneurs to carry out fundamental rethinking and

redesigning of their business processes to cope with the challenges and to achieve performance improvements (Awa & Rizwan, 2016).

In Akwa Ibom State of Nigeria, business process reengineering is seen as a strategic tool for boosting entrepreneurial ventures. Recent studies and government initiatives from 2015 - 2024 highlight its growing adoption across various sectors (Obialor et al., 2024). Also, Akwa Ibom State government's 2025 Business Enabling Reform Action Plan (BERAP) anchors on the significance of process improvements and digital transformation to boost the growth of entrepreneurship initiative in the State (Akwa Ibom State, 2025). Effort is also geared toward reengineering business education in tertiary institutions across the state (Etuk, et al., 2012). In addition to this, other government initiatives like Ibom LED Accelerator Programme and Arise MSMEs Empowerment Grant are put in place. Since government programmes on entrepreneurship in the state is geared towards process improvements and digital transformation, the selected variables for this study are process innovation and process redesign.

Process innovation entails applying or introducing new technology or ways of doing business to meet customer demands in a competitive business environment (Awati & Pratt, 2023). Process innovation in this study is measured by the degree or intensity of process innovation implementation over time (in percentage) from 2015 to 2024. Process redesign on the other hand, refers to the total overhaul of a business key processes to make significant improvement in business performance (Hayes et al., 2022). The present study seeks to examine the extent to which businesses in Akwa Ibom State have restructured or reconfigured their internal processes in the period from 2015 to 2024 also measured in percentage. Thus, process redesign is measured by the percentage of firms in the state that have restructured their process or reconfigured their workflow within the period.

Growth of entrepreneurship refers to the expansion and development of entrepreneurial activities in an economy. In Akwa Ibom State, entrepreneurship is experiencing gradual growth over the last decade but the outlook is promising. For this study, growth is assessed by number of new startups each year, survival rate and revenue growth. Hence, the study sought to examine the influence of process innovation and process redesign on entrepreneurship growth.

Statement of the Problem

Akwa Ibom State government has carried out several entrepreneurship development reforms, programmes and initiatives in addition to Federal government incentives to boost entrepreneurship in the state. Despite these efforts, the growth and sustainability of businesses in the state remain a course for concern. Small and medium Scale Enterprises (SMEs) are confronted with myriads of challenges ranging from poor infrastructure and high operational costs to limited access to technology and inefficient internal business processes. In response, BPR has been widely recommended as a strategic approach to rethinking and redesigning business processes fundamentally. This can improve performance indicators like competitiveness, efficiency and productivity. Process innovation and process redesign are said to have the capacity to enhance the adaptability of businesses in a dynamic and resource constrained economy such as Akwa Ibom State.

However, according to Udo & Ekanem (2021), there is limited and fragmented empirical evidence on the effectiveness of BPR practices in enhancing entrepreneurship in the state. While some businesses have reported improvement due to digital transformation and workflow reengineering, many others still struggle with inefficiencies and high failure rates (Udo, 2023), casting doubt on whether BPR practices are being effectively implemented or understood.

Objectives of the Study

The major objective of the study was to examine the effect of business process reengineering (BPR) on entrepreneurship growth in Akwa Ibom State. The specific objectives were to:

(i) investigate the effect of process innovation on the growth of entrepreneurship in Akwa Ibom State; and to;
(ii) evaluate the effect of process redesign on the growth of entrepreneurship in Akwa Ibom State.

Research Questions

(i) How does process innovation affect the growth of entrepreneurship in Akwa Ibom State?

(ii) How does process redesign affect the growth of entrepreneurship in Akwa Ibom State?

Research Hypotheses

Ho_1: Process innovation has no significant effect on the growth of entrepreneurship in Akwa Ibom State.

Ho_2: Process redesign does not significantly affect the growth of entrepreneurship in Akwa Ibom State.

2. LITERATURE REVIEW

Conceptual Review

Business Process Reengineering (BPR) was introduced as a radical approach to rethinking how organizations conduct work to enhance customer service, minimize operational costs, and become world-class competitors (Ugwu, *et al*. 2023; Ezenwoke & Tiemo, 2020). In the context of entrepreneurship, BPR serves as a catalyst for innovation, enabling startups and small enterprises to redesign their processes fundamentally to achieve competitive advantage (Al-Shammari, 2023; Alharthi et al. 2023). BPR involves the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical performance measures (Essien & Udo, 2022). Unlike incremental improvement methods, BPR seeks transformative changes by questioning existing assumptions and making use of innovative technologies. Key success factors

include strong leadership, effective change management, and robust IT infrastructure (Vakola & Rezgui, 2022).

Key components have been consistently identified in the literature as critical to BPR success, including process identification, process analysis, process redesign, process innovation, change management, IT enablement, performance measurement, and top management commitment (Sivarajah et al., 2023; Hayes et al. 2022). For entrepreneurial ventures, especially in dynamic environments like Nigeria, embracing these developments is essential for achieving entrepreneurial success. The success of Business Process Reengineering hinges on a well-structured set of interdependent components. Two of these components form the architecture for a transformative and sustainable reengineering initiative. These are process innovation and process redesign.

Process Innovation

Process innovation, a key dimension of technological and organizational advancement, entails implementing new or significantly enriched methods of production or delivery (Essien & Umoh, 2020; Chesbrough, 2003). These improvements may include changes in techniques, equipment, and/or software (Laursen & Salter, 2006; OECD, 2005). Process innovation is conceptually distinct from product innovation. While product innovation focuses on developing new or improved goods and services, process innovation emphasizes efficiency and internal performance (Heliyon, 2024; Udo & Ekanem, 2021). It is often incremental but can also be radical, depending on the magnitude of change introduced (Damanpour & Gopalakrishnan, 2001). Tidd & Bessant (2014) describe process innovation as one of the four key types of innovation (alongside product, position, and paradigm innovation), and emphasize that it requires not only technical change but also organizational alignment.

Akwa Ibom State, Nigeria, is an area characterized by a rising number of micro, small, and medium enterprises (MSMEs). In the entrepreneurial context of Akwa Ibom State, process innovation often emerges through necessity-driven creativity and informal knowledge-sharing rather than formal R&D structures (Nwokah & Maclayton, 2006). It is typically linked with process redesign and reengineering. Entrepreneurs who innovate their processes may achieve faster production cycles, better quality control, and more reliable customer service. Empirical and anecdotal evidence point to several drivers of process innovation in this region such as: digital adoption (Etim, 2018), informal learning and networking, and institutional support (Udo & Ekanem, 2021; Essien & Udoh, 2019).

Process Redesign

Process redesign is a strategic managerial approach aimed at fundamental rethink and radical alteration of business processes to obtain drastic improvements in performance metrics such as quality, cost, speed and service (Asaolu, 2025; Mwange, 2022; Okoye et al., 2019). It goes beyond incremental process improvement by challenging existing assumptions and workflows (Heliyon, 2024; Okoro *et al*. 2022). Process redesign is often used interchangeably with Business Process Reengineering (BPR), though it can also occur on a smaller scale. According to Al-Shammari (2023) &

Alharthi, (2023), process redesign involves the analysis and design of workflows and processes within and between organizations. Unlike process innovation, which may involve new technologies or methods, process redesign often focuses on the structure and sequence of tasks to optimize existing processes (Al-Mashari & Zairi, 2000).

In the Akwa Ibom State context, it involves shifting from manual to semi-automated production, reconfiguring customer service delivery, or reorganizing supply chain logistics (Mwange, 2022). Many entrepreneurs, particularly in the agro-processing, fashion, and service sectors have begun adopting these approaches to remain viable and competitive. While some studies have explored innovation and SME performance in Akwa Ibom, specific research on process redesign remains limited. Key areas that warrant further investigation include: (1) Sector-Specific Redesign Models, (2) Digital Process Redesign, (3) Impact Measurement, (4) Gendered Analysis, and (5) Integration with Policy.

Growth of Entrepreneurship

The growth of entrepreneurship refers to an increment in the number, size, and impact of entrepreneurial ventures within a period of time. Research shows that education, experience, and skills of entrepreneurs significantly influence business growth (Unger et al., 2011). Beck & Demirguc-Kunt (2006) found that access to credit and other financial services is a major determinant of entrepreneurship growth, particularly in developing economies. Innovation capacity is strongly linked with entrepreneurial success (Audretsch, 2007). Entrepreneurial ecosystems thrive where there is effective support from government institutions (Acs et al., 2014). Tax incentives, business registration ease, infrastructure, and intellectual property rights are key enablers. Cultural attitudes towards risk-taking, failure, and success affect entrepreneurial behavior. Societies that celebrate entrepreneurship tend to produce more growth-oriented ventures (Hayton et al., 2002).

In developed Economies, studies from the U.S. and Europe show a strong link between BPR, venture capital, research and development, and high-growth entrepreneurship (Shane, 2003; Lerner, 2010). In developing Economies such as in Africa and Asia, informal financing, mentorship, and digital platforms have become key drivers of entrepreneurial growth (Ngek, 2012; Okpara, 2011). In Nigeria, studies highlight that entrepreneurship policies, though present, are often poorly implemented, limiting growth (Adebayo & Kewo, 2017). In Akwa Ibom State, government has initiated several programs to support small and medium-sized enterprises (SMEs), yet the growth of entrepreneurship remains uneven. Drivers of Entrepreneurship growth in Akwa Ibom include government initiatives and policy frameworks such as Ibom 3000 Project, Akwa Ibom Entrepreneurship Development Centre (AK-EDC) and IBOM-LED (Livelihood Empowerment). While commendable, these programs often lack follow-up funding and market linkage support (Udo, 2023). The state boasts a relatively high literacy rate and multiple tertiary institutions yet entrepreneurship education remains theoretical and detached from market realities (Effiong, 2021). Technical and vocational education lacks industry alignment, hampering skills relevance. (Etim & Akpan, 2022). However,

remittances and exposure to global business ideas from Akwa Ibomites abroad are gradually shaping local entrepreneurial aspirations.

Theoretical Framework

Schumpeter's Theory of Innovation

Joseph Schumpeter (1934) emphasized the importance of innovation as the primary booster of economic development and entrepreneurial success. Entrepreneurs are key agents of change who disrupt existing market structures through the introduction of new products, processes, markets, and organizational kinds. The process of "creative destruction" enables the replacement of outdated systems with more efficient and productive alternatives. Daomon et al. (2024) applies Schumpeter's idea to explain how risk-taking operationalized as an entrepreneurial trait amplifies SME performance in Akwa Ibom State. However, the theory has been criticized for too much emphasis on individual entrepreneurs with minimal focus on collective and systemic nature of innovation in modern contexts, such as networks, institutions, and digital ecosystems. It does not adequately explain the role of incremental innovation, organizational learning, and socio-cultural influences that shape innovation outcomes, especially in developing economies where innovation is often adaptive rather than radical (Udo, 2024).

Schumpeter's concept of innovation aligns with BPR and entrepreneurship growth, as it entails the drastic redesign of existing work processes to realize tremendous improvements in outputs. Process innovation, a core dimension of BPR, reflects the entrepreneurial act of introducing new ways of creating and delivering value, thus fostering competitive advantage. In Akwa Ibom State, where entrepreneurs often operate in resource-constrained environments, BPR-driven innovation can empower business owners to overcome infrastructural and operational challenges.

Empirical Review

Asaolu (2025) conducted a study to analyse the effect of business process re-engineering on the survival of block molding companies in Bayelsa State, Nigeria. The specific objective was to analyse the effect of work and technological changes on the survival of block molding companies in the state. A descriptive research design was adopted in the conduct of the study. The study population was 164 block molding firms in Bayelsa State. Taro Yameni's formula for sample size determination was used to draw a sample of 116 block molding businesses. A structured Likert scale type questionnaire was used in collecting data. Pearson Product Moment Correlation statistical tool was used to test all hypotheses. Result revealed that there was substantial correlation between work change and organizational survival. It was recommended that state of the art IT infrastructure should be adopted for proficiency work and excellenee. The study focused exclusive on block molding industry making generalization of findings across industries difficult. Considering all sectors of SMEs may provide greater degree of understanding of the workability of BPR in the context of entrepreneurship.

Etuk et al, (2012) examined how business education can be reengineered in tertiary institution for prompt employment in Akwa Ibom State. An ex post facto research design was employed in the conduct of the study. The study has a population of 24 lecturers in department of business education, College of Education, Afaha Nsit and University of Uyo, Uyo, and 1,500 business education graduates. Sample size was 800 graduate employees. Data were collected by means of the researchers developed questionnaire. The statistical tool used for analysis was t-test, Result revealed that there has been no significant difference in the level of employment of business education graduate before and after the implementation of the new ICT curriculum, training of lecturers on the new ICT skills and supply and utilization of the new ICT resources. Recommendation was that there should be improvement in application of the new curriculum. However, this theory was an academic exercise and lack practical and industry-based insight of a real-world situation. Present study examined practical application of BPR practices as it affects entrepreneurship in a regional or state-based scope.

Oladele & Osibanjo (2020) investigated the effect of business process reengineering on companies productivity in SMEs in Lagos State, Nigeria. This study examined how business process reengineering (BPR), particularly process innovation and redesign, influences the accomplishment of small and medium enterprises (SMEs). The aim was to determine whether structured changes in internal processes can lead to increased business efficiency and profitability. The population comprised SME operators in Lagos State, with 150 businesses as a sample size chosen using stratified random sampling technique. Copies of structured questionnaire were used in data collection and the data were analysed by means of multiple regression analysis. The results showed a significant positive link between process redesign and businessIn outcomes. The authors recommended continuous innovation and simplification of workflows, noting that BPR implementation should be tailored to the company's size and sector. The use of self-reported information may not reflect actual performance of SMEs. Also, the use of cross-sectional data makes it difficult to establish causality or observe long term trends. The current research explored historical data to examine the trends the application of BPR in Akwa Ibom State over time.

Inyang & Akpan (2019) conducted a research on process innovation and entrepreneurial sustainability in Akwa Ibom State. The study aimed to examine the impact of process innovation on the long-term sustainability of entrepreneurship in Akwa Ibom State. Using a descriptive survey design, the researchers targeted entrepreneurs registered under the State's SME Development Office, with 120 respondents as the sample size. Data were collected using structured questionnaires and analyzed using SPSS, particularly correlation and ANOVA techniques. Results revealed that entrepreneurs who embraced process innovation (e.g., automation, digital tools) were more likely to sustain their businesses beyond the 3-year survival mark. The study concluded that innovation training and funding support should be integral parts of state-sponsored entrepreneurship development programs. Small sample used in study does not reflect the true picture of the extent of adoption of BPR in the state. Using a statewide data provides clearer picture of the true state of entrepreneurship in the entrepreneurship.

Uzondu & Eze (2021) carry out a research on business process redesign and Start-Up Performance in South-Eastern Nigeria. Focusing on startups in South-Eastern Nigeria, this research sought to examine the influence of business process redesign on new venture success. The study's objective was to investigate how removing non-value-adding activities and reconfiguring workflows contribute to efficiency and customer satisfaction. The population included startup founders across tech, fashion, and agribusiness sectors, with a purposive sample of 100 respondents. Data were obtained through interviews and structured questionnaires, and regression analysis was used. The study concluded that process redesign was positively linked to higher revenue and market responsiveness. It recommended that startups adopt lean methodologies early in their development stages. Concentration on only startups does create gap regarding how existing businesses cope in the face of massive technological changes. This is the central focus of the present study

3. METHODOLOGY

The study adopted ex-post factor research design in gathering data for this study. The main source of data for this study was secondary data. These data were extracted from Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), National Bureau of Statistics (NBS) and record and evaluation reports from Akwa Ibom State Ministry of Commerce and Industry. Relevant secondary data sources that reflect the study objectives were selected using purposive sampling technique.

Model Specification

The econometric form of the mode used in the study is specified as:

$EG = f(P1)$ ……. Equation 3.1

$EG = f(PR)$ …….. Equation 3.2

Substituting these equation into a multiple linear regression model, we have

$EG = \beta_0 + \beta_1 PI + \mu_0$ ……..... Equation 3.3

$EG = \beta_1 + \beta_2 PR + \mu_1$ …… Equation 3.4

$EG = \beta_2 + \beta_1 PI + \beta_2 PR + \mu_2$ …… Equation 3.4

Where EG is entrepreneurship growth, P1 is process innovation, PR is process redesign, β_0 is intercept and β_1 β_2 are coefficient of independent variables and $\mu 0$, $\mu 1$, and $\mu 2$ are error terms

4. DATA PRESENTATION AND ANALYSIS

Table 4.1 BPR and entrepreneurship growth indicators in Akwa Ibom State (2015-2024)

Year	Process innovation (%)	Process redesign	BRP Index (%)	No. of New Starups	Bus. Survival Rate (%)	Rev. Growth Rate (%)
2015	10.2	8.4	9.3	151	40	2.2
2016	12.0	10.2	11.1	292	42	2.5
2017	15.3	13.3	14.3	332	44	2.9
2018	18.4	17.0	17.7	386	47	3.4
2019	20.1	19.0	19.5	402	49	3.7
2020	24.0	22.1	23.0	467	52	4.1
2021	28.4	27.3	27.8	520	55	4.5
2022	32.3	31.4	31.7	578	58	5.0
2023	36.2	35.3	35.6	608	60	5.5
2024	39.4	39.1	39.6	711	63	6.0

Source: Compiled from SMEDAN (2025); NBS (2025); Akwa Ibom State Ministry of Trade and Investment Report (2025)

Table 4.1 shows BPR and entrepreneurship demography in Akwa Ibom State of Nigeria from 2015-2024.

4.1 Test of Hypotheses

Table 4.2 Repression result for process innovation and growth

Model Summary

Model	R	R Square	Adjusted R Square	Std error of the estimate
1.	.979	.958	.953	36.2054

a. Predictors: (Constant), Independent Variable 1

ANOVA[a]

Model		Sum of squares	df	Mean square	F	Std
1.	Regression	238577.721	1	238577.728	181.925	.001[b]
	Residual	10488.372	8	1311.046		
	Total	249066.100	9			

a. Dependent variables: Entrepreneurship growth

b. Predictors: (Constant), Process Innovation

Unstandardized coefficient[a]

Model		B	Std. error	Beta	t	Sig.
1.	(Constant)	66.140	30.309		13.603	.000
	Process Innovation	16.020	1.188	.979	46.666	.000

a. Dependent variables: Entrepreneurship growth

The model summary in Table 4.2 shows an R-value of 0.979 which suggest a strong positive correlation between process innovation and entrepreneurship growth in Akwa Ibom State. The Adjusted R-Square value of 0.953 showed that 95.3% variation in growth of entrepreneurship was explained by variation in process innovation. The F-value of 181.975 and its corresponding P-value of .000 showed that the model is a good fit. The coefficient for process innovation is 16.02 implying that for every unit increase is process innovation a 16.02 unit increase in entrepreneurship growth is predicted, holding other variables constant. Thus, the null hypothesis which states that process innovation has no significant impact on the growth of entrepreneurship in Akwa Ibom State is rejected.

Table 4.3 Regression result for process redesign and entrepreneurship growth

Model Summary

Model	R	R Square	Adjusted R Square	Std error of the estimate
1.	.978	.956	.951	36.80542

a. Predictors: (Constant), Independent Variable 1

ANOVA[a]

Model		Sum of squares	df	Mean square	F	Std
1.	Regression	238228.988	1	238228.88	175.862	.000
	Residual	10837.112	8	1354.639		
	Total	249066.100	9			

a. Dependent variables: Entrepreneurship growth

b. Predictors: (Constant), Process Redesign

Unstandardized coefficient[a]

Model		B	Std. error	Beta	t	Sig.
1.	(Constant)	103.526	28.237		3.666	.006
	Process Redesign	15.292	1.153	.978	13.261	.000

a. Dependent variables: Entrepreneurship growth

Model summary

Table 4.3 showed an R-value of 0.978 which shows a strong and positive relationship between process innovation and growth entrepreneurship in Akwa Ibom State. The adjusted R-square value of 0.956 showed that 95.6% variation in growth of entrepreneurship was explained by variations in variation in process innovation. The F-value of 175.862 and its corresponding P-value of 0.000 shows that the model is a good fit. The coefficient for process redesign (b2) is 15.292 implying that for every unit increase in process redesign, a 15.292 increase in entrepreneurship growth is predicted, holding after variables constant. Since, R= 0.975 and P<0.05, the null hypothesis which states that process redesign does not significantly affect the growth of entrepreneurship in Akwa Ibom State is rejected.

4.2 DISCUSION OF FINDINGS

The study found a positive and significant effect of process innovation on the growth of entrepreneurship in Akwa Ibom State. This is possible because businesses that introduce new or make significant improvement in production or delivery methods will witness improvement in business outputs. Also, adopting innovation in the work process may lead to investment in new technologies or workflows and ultimately new startups leading to growth of entrepreneurship. This finding corresponds with Obialor et al (2024) who found in a study that BPR components including process renovation, automation and networking substantially influence organization of courier companies in Akwa Ibom State: The finding is also in line with Asaolu (2025) who found significant correlation between work and technological changes and organizational survival in block molding work in Bayelsa State.

It was also found that process redesign has significant positive effect on the growth of entrepreneurship in Akwa Ibom State. This result is attained because businesses that redesign their processes can eliminate redundant procedures, simplify or re-map workflows, integrate new software or systems and shift for manual to digital systems in operations with resultant performance outcomes such as increase in new startups, high business survival rate and increase revenue. This result agrees with Essien & Udo (2022) and Okoye et al. (2019) who suggest that process redesign can significantly enhance entrepreneurship outcomes.

5.0 CONCLUSION AND RECOMMENDATIONS

By prioritizing process innovation and process redesign, entrepreneurs can overcome systemic inefficiencies and build resilient, growth-oriented enterprises. Stakeholders must therefore collaborate to provide the tools, training, and policy support necessary to drive this transformation. This study has established that entrepreneurs that leverage BPR are better positioned for long term business survival, witness increase in new startups and reap higher revenue. Our findings have shown that process innovation and redesign have significant influence on growth of entrepreneurship in Akwa Ibom State. Thus, we conclude that BPR practices have significant and effect on the growth of entrepreneurship

in Akwa Ibom State. It therefore behooves entrepreneurs to prioritize process reengineering as part of broader entrepreneurship development strategies.

It is recommended that (I) entrepreneurs in Akwa Ibom State should be supported with subsidized access to innovative tools and technologies such as cloud platforms, automation software, and digital payment systems. This will enable them to adopt efficient, modern processes that improve productivity. And (II) that business development organizations should conduct regular workshops on workflow redesign, operations mapping, and lean process improvement to help entrepreneurs restructure their internal systems.

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