

Entrepreneurial Perspectives on the Effectiveness of BSCIC Support Services in Northern Bangladesh

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The underlying forces behind industrial development are the entrepreneurs contributing to the economic development of a country. A good number of institutions are engaged in the development of entrepreneurial class in Bangladesh. Among them Bangladesh Small and Cottage Industries Corporation (BSCIC) has been playing a leading role in developing an entrepreneurial class by rendering various services to the entrepreneurs through its 4 regional offices (Dhaka, Chittagong, Rajshahi, and Khulna). As BSCIC is meant for providing support services to help generate, grow and sustain entrepreneurial class in Bangladesh, the current work attempts to know how entrepreneurs perceive these services provided at each of stage of entrepreneurship development cycle besides going through the rules, regulations, and policies made from time to time regarding the development of entrepreneurial class. This paper also attempts to measure the moderating impact on the relationship between entrepreneurs' biographical characteristics and entrepreneurship development. This study employed positivism paradigm following deductive reasoning approach. A total of 243 responses were collected through a survey questionnaire using 6-point Likert scale. The study in a nutshell reveals that the perceptions of the entrepreneurs regarding the support services provided by BSCIC in most of the cases are not conducive to entrepreneurship development in the Northern Zone of Bangladesh because of the lack of adequate support services provided by BSCIC.

Key words: BSCIC, SCIs, Support Services, Entrepreneurship Development, Quantitative Approach

1. Introduction

The economic development of a nation hinges significantly upon the trajectory of entrepreneurship development – encompassing its inception, growth, and sustainability (Fischa & Oyelana, 2015; Meyer & Meyer, 2020; Rasu et al., 2022). In Bangladesh, fostering entrepreneurship is essential for wealth creation, job generation, and poverty alleviation (Datta, 2018). Various institutions, including the Bangladesh Small and Cottage Industries Corporation (BSCIC), play pivotal roles in nurturing an entrepreneurial ecosystem (Chowdhury, 2017). As a governmental body, BSCIC is dedicated to fostering small and cottage industries (SCIs) nationwide (Rahman, 2021). Its primary aim is to cultivate entrepreneurs and promote industrial

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entrepreneurship, a mission it has pursued vigorously since its inception (Bari et al., 2019). Research by Islam (2020) highlights the diverse support services offered by BSCIC, including infrastructural assistance, counseling, training, and market promotion, to facilitate entrepreneurship development. BSCIC operates through its four regional offices in Dhaka, Chittagong, Rajshahi, and Khulna, and has established 74 industrial estates across Bangladesh to foster balanced SCI growth. Additionally, it spearheads the construction of specialized industrial estates tailored for specific industries such as Tannery, Active Pharmaceutical Ingredients (API), and Garments Parks. Furthermore, BSCIC has set up 183 Upazila centers, implementing projects such as women entrepreneurship development programs, poverty alleviation initiatives through income-generating activities, and rural economy revitalization efforts (Islam, 2020). Despite its substantial infrastructure, well-defined policies, and extensive support offerings, BSCIC has fallen short of meeting entrepreneurs' evolving needs and global market demands. It is crucial to identify and assess the reasons for this shortfall. Given its mandate to support entrepreneurship, understanding entrepreneurs' perceptions of BSCIC's services is imperative. Surprisingly, scholarly literature on entrepreneurship development in Bangladesh, particularly in the Northern Zone, lacks studies examining entrepreneurs' perceptions of BSCIC's support services. Thus, filling this gap through scholarly inquiry is essential. This study seeks to understand entrepreneurs' perceptions of the support services provided by BSCIC in facilitating entrepreneurship generation, growth, and sustainability. Additionally, it aims to explore how entrepreneurs' background characteristics, such as experience and years of engagement with BSCIC, moderate the relationship between support services and entrepreneurship development across various stages. Insights gleaned from this study will inform policymakers and practitioners, enabling them to formulate targeted strategies for nurturing a robust entrepreneurial class. The subsequent sections delve into a comprehensive review of the literature on BSCIC and its role in entrepreneurial development in Bangladesh, the methodology employed, including hypotheses and instrument development, the study's results and findings, and finally, the practical and theoretical implications thereof.

2. Literature Review

The paradigm shifts towards recognizing the pivotal role of entrepreneurship in fostering economic development have gained momentum, emphasizing both the quantitative and qualitative enhancement of entrepreneurial endeavors within economies (Dhaliwal, 2016). Conceptualized through psychological lenses, an entrepreneur embodies an individual driven by intrinsic needs, thereby asserting independence (Vesper, 1980). From a capitalist perspective, entrepreneurship epitomizes wealth creation, resource utilization, and employment generation, all contributing to societal welfare (Vesper, 1980). Embedded within the social and economic development fabric, entrepreneurship assumes an indispensable role, manifesting in strategic planning, innovative ideation, organizational structuring, and risk embracement (Leibenstein, 1968).

In the context of Bangladesh's economic trajectory, fostering entrepreneurship emerges as a cornerstone for wealth creation, employment generation, and poverty alleviation (Datta, 2018). The Bangladesh Small and Cottage Industries Corporation (BSCIC), among the prominent entities tasked with this mandate, has spearheaded various initiatives aimed at uplifting entrepreneurs within small and cottage industries (SCIs) (Rahman, 2021). Initially focused on commercial activities like importing machinery and distributing resources, BSCIC's role evolved towards promotional and developmental endeavors (Bari et al., 2019). Collaborating with financial institutions, BSCIC facilitated financing avenues for SCIs, both domestically and internationally (Rahman, 2021).

Entrepreneurship involves the individual who undertakes several endeavors (Dollinger, 2008). An entrepreneur is a combination of personality traits (Gartner, 1988). The people who engage in taking economic ventures and business decisions are recognized as entrepreneurs. Entrepreneurship development implies the nurture of entrepreneurial potentialities essential for conducting business. It drives individuals with aspirations and needed information regarding setting up business organizations (Senathiraja & Uluwaduge, 2020). The economic development of a country is heavily contingent on the generation, growth, and sustainability of entrepreneurial development (Fiseha & Oyelana, 2015; Meyer & Meyer, 2020; Rusu et al., 2022). The critical role that entrepreneurs play in the growth of western countries has made people in developing countries increasingly aware of the need for entrepreneurship for economic development. People

are now realizing that to achieve the goal of economic development, the country's entrepreneurship needs to be increased both qualitatively and scientifically. Active and enthusiastic entrepreneurs are responsible for driving change and innovation by leveraging available resources such as labor, technology, capital, materials, and assets to produce value (Hisrich, 1990). From a psychological point of view an entrepreneur is a person driven by certain needs which make him independent. From the capitalist point of view an entrepreneur is one who creates wealth, utilizes resources, and generates employment for the betterment of society (Vesper, 1980). For social and economic development process entrepreneurship is an inevitable factor because it demonstrates initiative, produces creative thinking, organizes social and economic mechanisms to turn resources and situations into practical account, and accepts risk and failure (Leibenstein, 1968).

For the economic development of Bangladesh, it is necessary to take initiatives in creating wealth, generating employment, and alleviating poverty through entrepreneurship development. A good number of institutions are taking various initiatives to develop an entrepreneurial class in Bangladesh. Bangladesh Small and Cottage Industries Corporation (BSCIC) is one of them under the Government of Bangladesh (GoB) engaging in the development and expansion of the country's small and cottage industries. The main objective of BSCIC is to create entrepreneurship and develop industrial entrepreneurship. BSCIC provides financial loans and infrastructure facilities for entrepreneurs to set up their factories. BSCIC, one of the leading corporations vested with this responsibility in Bangladesh, has initiated so far various programs for the upliftment of entrepreneurs in small and cottage industries. Initially, BSCIC was primarily concerned with commercial activities such as acquiring plants and machines, raw materials, and their distribution to private sector companies. The focus has since switched from commercial to promotional and development initiatives. Apart from promotional and development procedures, BSCIC collaborated with financing institutions/commercial banks to form a consortium to finance SCIs' credit requirements in both local and foreign currencies.

BSCIC has carried out substantial tasks for SCIs to broaden the industrial base from its early journey in 1957. The government amends several rules and regulations for proper activity monitoring to fulfill its responsibility for the development of entrepreneurs. The major commercial activities of SCIs included the import of raw materials, plant and machinery, and small loans to small business owners. BSCIC also offers technical and consulting assistance for

improving the quality of SCIs products, marketing SCIs products, and helping entrepreneurs create business profiles and bids. It also helps them adopt the right technologies. The government has recognized the importance of having successful and numerous SMEs in the development of a sustainable economy and provides legislative responsibility to the BSCIC to formulate policy and to provide infrastructure, administrative assistance, fiscal and environmental support, and policy support. BSCIC distributes loans to SCIs, subsidiary businesses, commercial and cooperative banks, and societies for the development of small and cottage industries. It designs and proposes to the government programs for the development of SCIs, such as research and mechanization plans. After the government has approved of these initiatives, they can be implemented either directly or through the sponsorship of subsidiary firms or public companies. It additionally operates as managing agents for such subsidiary corporations or companies and is represented on their boards of directors. BSCIC manages the sale of SCI-manufactured commodities, maintains depots for the supply of raw materials to and purchase of finished products from SCIs, and operates common facility centers to provide common facilities to small and cottage industries. It prepares schemes to set up small industrial units in fields of high priority by itself or in collaboration with subsidiary corporations, public companies, partnerships, or persons, executes them with the prior approval of the government, and, after execution, may transfer the ownership thereof for valuable consideration to any unit of subsidiary corporation, public company, partnership firm, or persons, with the prior approval of, and on such terms as may be approved by the Government.

BSCIC prepares and implements investment schedules for SCIs; assists in setting up of SCIs; aids sick SCIs. It collects, collates and analyses industrial data and establishes data bank for SCIs to assist the Government in the formulation of policy in the field of SCIs. Moreover, it assists entrepreneurs with information relating to SCIs and develops manufacturing processes and technology for development of SCIs. BSCIC assists SCIs in the matter of entering contracts and establishing business connections with big industries and for the purpose of supplying them with their products. Bangladesh Government formulated different SME policies in different times for competing internationally and moving toward with greater efficiency production and structural adjustment (Rahman, 2010). These policies include trade policy, tariff rationalization, fiscal policy such as tax policy, wealth policy, and VAT policy. In order to achieve balanced development through economic, social, and environmental preservation, the government

designated the SME sector as the primary pillar of industrial development in the National Industrial Policy 2016. The development of the SME sector will play an important role in meeting the targets established in national and international policy and planning documents such as the National Industrial Policy 2016, the Seventh Five-Year Plan, Vision 2021, LDC graduation by 2024, the Sustainable Development Goal 2030, and Vision 2041. To ensure the effective development of the SME sector and entrepreneurs, SME development strategies have been designed around three elements in SME policy 2019, which include supportive policies, an appropriate environment, sustainable and effective organizations, and opportunities to provide financial and business support services to prospective and disadvantaged entrepreneurs. Given these three concerns, SME Policy 2019 focuses on policy implementation measures to foster SME development. The SME Policy 2019 emphasizes the need for significant SME development operations to increase the desired contribution of the SME sector to GDP and reduce poverty by synchronizing government and private sector efforts. BSCIC has introduced coordination and implementation of this policy in the SMEs sector for central supervision. This could include simplifying and rationalizing SME tax policy, providing investment and income incentives for export-oriented SME sectors, and enhancing coordination among institutional structures.

Considering the massive socio-economic problems of Bangladesh like poverty, unemployment, and continuous pressure of population and the changing Government's policies, BSCIC's activities were reorganized to help the private sector entrepreneurs in establishing new enterprise. Now BSCIC is also conducting two kinds of activities - a) extension, promotion and regulatory functions under revenue budget that include entrepreneurship development, allotment of developed plot, preparation of project proposal etc. (b) long-term development-oriented activities under annual development program. BSCIC, being the patronizing organization, monitors the amount of investment and number of employments generated in the SCIs sector. From its inception, BSCIC has adopted several policies and various programs for the development of entrepreneurship, but it must face several hurdles in implementing them. Several studies were conducted on the role of BSCIC from time to time. Latif and Khanom (2013) investigated the ambitions, compulsions, facilitations, and expectations which brought them to industry, the idea generation process, and motivators in the entrepreneurial process, as well as the key barriers to entrepreneurship in BSCIC Industrial Estates. The authors of this study

focused on characteristics that operate as predictors of entrepreneurial spirit and conducted it in the country's Sylhet Division.

Azim (2013) utilized a qualitative study to assess the content, design, delivery methods, and efficacy of the Small and Cottage Industries Training Institute of Bangladesh's entrepreneurial development training program. This study also emphasized the program's inputs, such as program design, content, delivery modalities, and facilitator characteristics. Another study undertaken by Islam (2020) investigated institutional support facilities such as infrastructure, counseling, training, market promotion, and information available to entrepreneurs in Bangladesh. In his analysis, he also stated that various institutions are involved in the country's entrepreneurial development process in some capacity. However, the institutions are determined to be performing. They are weak in technical, managerial, and behavioral competencies. Rahman (2010) noted in his study the key financial, industrial, and political barriers to entrepreneurship development in Bangladesh. The author stated that it needs a concerted effort of different financial institutions, such as Bangladesh Bank, BSCIC, National Commercial Banks, Private Commercial Banks, Specialized Banks or even insurance companies to make financing for the entrepreneurship development.

Jahed et al. (2011) focused on some of the concerns and problems of women's entrepreneurship development in Bangladesh and concluded with some strategic recommendations. In their study, they discussed the country's support services for women's business development. According to Ahmed (1999), even though BSCIC has long been an important public sector, the human body in charge of promoting SME and entrepreneurship growth, its operational efficiency remains low due to a variety of structural, administrative, and managerial constraints. The assessment also stated that specific promotional policies and support measures, such as extension services, financial and physical assistance from public sector organizations and development partners, have not always been effective. Weak and inefficient management, as well as a lack of proper implementation of various policy support measures, have rendered various assistance related to business advisory services, such as training, credit marketing, and physical infrastructure facilities through BSCIC's industrial estates program, much less effective than hoped.

Mamun and Bhuiyan (2002) conducted research entitled practices of entrepreneurship in the government supported enterprises of Bangladesh and found that most of the underdeveloped

countries where modern financial systems are absent or financial institutions are reluctant to provide financial assistance to the small entrepreneurs, individual and family sources are considered as an important source to start a venture. Khan (1996) found that more than 54% of entrepreneurs invested their initial capital from individual and family sources while bank and financial institutions contributed to 31% cases. Only 13% managed capital by arranging partnership. In the present study 73% of entrepreneurs raised their initial capital from individual or family savings, only 18% received this from the Directorate of Youth Development (DYD), 6% arranged from BSCIC and other non-government organizations, while only 3% received loan from relatives.

Momen and Rahman (1990) highlighted the factors of entrepreneurship development in Bangladesh in their study and presented the factors determining the entrepreneurship development, indicated measures for success of entrepreneurs and evaluated the correlation between different factors and success of the entrepreneurship, revealed that the insufficiencies of stimulatory, supportive and sustaining services seriously hindered the entrepreneurship development in Bangladesh and suggested to the government to take initiative in guiding the selection of types of industries, their size, location and the funding pattern for developing the entrepreneurship conducive to the economic needs of Bangladesh. Another research work conducted by Razia (1993) focused on the nature of small units run by relatively young entrepreneurs, i.e. previous experience in engineering units, self-motivation, and confidence influenced them to venture into business. She also found that there is extensive use of borrowed capital. Among the working capital problems, credit sales were identified as major ones.

Uddin (1998) conducted research to identify the elements most typically associated with entrepreneurial success. He conducted this study for the purpose of assessing the performance of entrepreneurs in Bangladesh's Northern Region and discovered that their entrepreneurial skill is unrelated to their education, occupational background, age, or product-related education and experience to achieve success in industrial activities. Furthermore, they discovered that the key hindrances to the growth of entrepreneurship in the region are too many, including delayed loan disbursement, paucity of working capital, shortage of raw materials, incompatible supply of electricity and water, and constrained marketing scope. Dewan and Nazmin (2008) mentioned that BSCIC is primarily responsible for the expansion of small, cottage and rural industries in the country and found that BSCIC's industrial estates is still in its infancy in using modern

technology to support the entrepreneur and the entrepreneurship development in Bangladesh. Khan et al., (2012) have conducted a study from institutional perspective on perception of the constraints for small and cottage industrial growth in Bangladesh. The authors determined that as an institution, BSCIC requires perceptual as well as conceptual improvement in the current practice of enterprise/entrepreneurship development in Bangladesh, which might assist in maintaining emerging as well as existing small businesses and other relevant organizations. Abdullah and Latif (2014) investigated the impact of a training program designed by BSCIC in Sylhet district to attract some prospective talent into the entrepreneurial sphere. The authors found that after delivering the training program, BSCIC evaluated whether the potential entrepreneurs were motivated and assessed the quality of the resource persons' contributions during their presentations.

BSCIC's pivotal role in supporting entrepreneurship has been explored in various studies which have delineated BSCIC's multifaceted activities, ranging from promotional efforts to consortium-based financing initiatives. Despite its proactive measures, BSCIC has encountered challenges in aligning its services with the evolving needs of entrepreneurs. Moreover, research has highlighted the need for government intervention to address systemic constraints and facilitate entrepreneurship conducive to Bangladesh's economic needs.

However, existing literature lacks a comprehensive exploration of entrepreneurs' perceptions of BSCIC's support services and their impact on entrepreneurship generation, growth, and sustenance. This paper aims to fill this gap by conducting an in-depth analysis of entrepreneurs' perspectives, particularly in the context of the Northern Zone of Bangladesh. By focusing on entrepreneurs' firsthand experiences and perceptions, this study seeks to provide valuable insights into the effectiveness of BSCIC's support services and their alignment with entrepreneurs' needs.

3. Conceptual Framework and Hypotheses Development:

Entrepreneurship development has a significant impact on the economic growth of any country. Success in entrepreneurship is influenced by various factors, which have an impact on how they conduct their business. There have been a number of excellent reviews of institutional theory explaining the entrepreneurial phenomena in the last few years (Marquis et al., 2007; Scott,

1987, 2005; Tolbert & Zucker, 1996; Zucker, 1987). The institutional theory has been widely used (DiMaggio, 1997; Sabini & Muzio, 2012) in most of the organizations (Osman et al., 2015). This theory is contrasted with a number of other theories like agency theory, legitimacy theory, etc. (Zucker, 1987). Over the years, institutional theory has appeared as a leading perspective in organizational researches (Dacin et al., 2002) that considers the processes by which structures, including schemes, rules, norms, and routines, become established as authoritative guidelines for social behavior. This process is termed as institutional work. Moreover, this institutional process is based on the idea of institutionalization based on which organizations tend to follow the norms, values and beliefs of the existing institutions in order to gain legitimacy and enhance future prospects (DiMaggio & Powell, 1983; Tolbert & Zucker, 1996). There are three mechanisms that give rise to the institutional theory (Isomorphism pressure) namely regulative, normative and cultural-cognitive pressure (Palthe, 2014). So, entrepreneurship research has looked at institutional influences primarily based on institutional logic and interacts in the entrepreneurial process. Therefore, the empirical evidence from different studies highlighted in the literature reviews, discussions, and arguments leads to the following hypotheses and conceptual framework:

3.1 Support services at initialization stage by BSCIC for entrepreneurship development

Support services usually provide entrepreneurs that they need to start and operate effectively their businesses. They helped in the collection of information, extended the encouragement to entrepreneurs, and conducted industry-specific mentoring. BSCIC is the prime organization entrusted with the responsibility of promotion and development of small, cottage, and rural industries in the Bangladesh (Islam, 2020). According to Jasmin and Mamun (2009), BSCIC Industrial Estates provide various infrastructural facilities like developed plots, road connectivity and various utilities (like gas, water, electricity), and other services (like post offices, banks, etc.). Kee et al., (2019) investigated that start-up capital support required for success. However, Rosa et al. (2019) added that venture capital performs the supporting function of providing the necessary funding to the incubators for nurturing potential entrepreneurs and fledgling business entities.

Appropriate technological guidance through establishment of entrepreneurship business development could only help entrepreneurs to gain guidance and counseling to improve their

entrepreneur skills and talent in rural areas (Chakarborty & Broman, 2012). In this case, infrastructure facilities, credit arrangement, raw materials, and pre-investment counseling have a significant impact on entrepreneurship development in initialization stage.

H₁: The perception of entrepreneurs regarding support services provided by the BSCIC at the initialization stage is positively (negatively) related to entrepreneurship development.

3.2 Support services at growth stage by BSCIC for entrepreneurship development

Various support systems have been launched to encourage entrepreneurs and, in turn, to enhance the growth of the sector. The growth of entrepreneurship very much depends on the successful market studies of the products produced. Accordingly, it is very much needed to identify, develop and accumulate potential products for the promotion in marketing of products; upgrading of the quality; developing and applying new designs to maintain the quality; promoting sales through publication and circulation of price list, catalogue, leaflets, etc.; developing positive attitude of local buyers towards products; and exploring the possibilities in the international markets (Jasmin & Mamun, 2009). SMEs frequently struggle to enter international markets due to different types of limitations and difficulties Uddin (2014). In order to give regional businesses more advantages, the BSCIC introduced a subcontracting program in 1986. The program was envisioned to discover complementary industries, make connections, facilitate the signing of memorandums of understanding, and to support the implementation of various subcontracts. The program was also meant for promoting the concept of working together as subcontractors and encouraging small engineering businesses to participate in open competitions for contracts with major corporations. Through subcontracting, BSCIC offers promotional services to support the growth of small businesses and industries.

BSCIC used to be the prime institution to provide necessary training conducted by its training arm, Small and Cottage Industries Training Institute (SCITI). Since its establishment in 1985, SCITI had conducted training courses for over 24,000 participants, mostly to prospective and existing entrepreneurs as well as managers of SMEs enterprises. Regarding these issues, subcontracting arrangement, management, and skill development training, and market study, supportive and creative behavior of management significantly affect the growth of entrepreneurs. In the purview of the above discussion the following hypotheses have been formed for the current study purpose.

H₂: The perception of entrepreneurs regarding support services provided by the BSCIC at the growth stage is positively (negatively) related to entrepreneurship development.

3.3 Support services at sustenance stage by BSCIC for entrepreneurship development

Sustainable development of entrepreneurship generates greater economic benefit for both the entrepreneur and the country. It may depend on the factors like motivation of entrepreneurs, innovation, and application of new technology. In previous research, innovativeness could lead to the development of creative and new ideas that help to gain considerable success in entrepreneurial development (Hurley, et al., 1998). It reflects entrepreneurs to take new technology and to move toward developing creative ideas for sustainability. It means that motivation, innovation and application of new technology directly affect the entrepreneurship development in sustenance stage. As a result, the following hypothesis has been formulated.

H₃: The perception of entrepreneurs regarding support services provided by the BSCIC at the sustenance stage is positively (negatively) related to entrepreneurship development.

3.4 Moderating role of Respondents Background to Entrepreneurship Development

Some factors such as years of work experience and involvement with entrepreneurial development institution have an impact on entrepreneurial development and the endeavor of entrepreneurs. Kristiansen, et al (2003, pp. 251-263) found that certain characteristics of human capital or human resources such as age, gender, education and experience may further influence their decision to become self-employed. A study by Shenbaga et al. (2013, p.23) revealed that the most influencing motivating factors of the entrepreneurs are their background characteristics. The factors that affect this occupational choice depend broadly on an individual's entrepreneurial ability, the relative rates of return to entrepreneurship (Naude, 2001).

Olowa and Olowa (2015) indicated in their paper that adequate educational background relevant to adoption of innovations and skills are required for entrepreneurship development, and more experience contributes significantly to decision making ability of owners/managers, which in turn facilitates entrepreneurship development. They also added that an owner/manager with managerial and entrepreneurship experience is likely to have the necessary skills for the demands of the present business venture. In this case, respondent background like institutional attachment and experiences can have significant moderating impact on the relationship of services provided

by the BSCIC at different stages from initialization stage to growth stage to sustenance stage for the sake of developing entrepreneurship. Above all, the hypothesis is as follows-

H_{4a} : Respondent background has a positive (negative) impact on the relationship between services provided by the BSCIC at the initialization stage and entrepreneurship development.

H_{4b} : Respondent background has a positive (negative) impact on the relationship between services provided by the BSCIC at the growth stage and entrepreneurship development.

H_{4c} : Respondent background has a positive (negative) impact on the relationship between services provided by the BSCIC at the sustenance stage and entrepreneurship development.

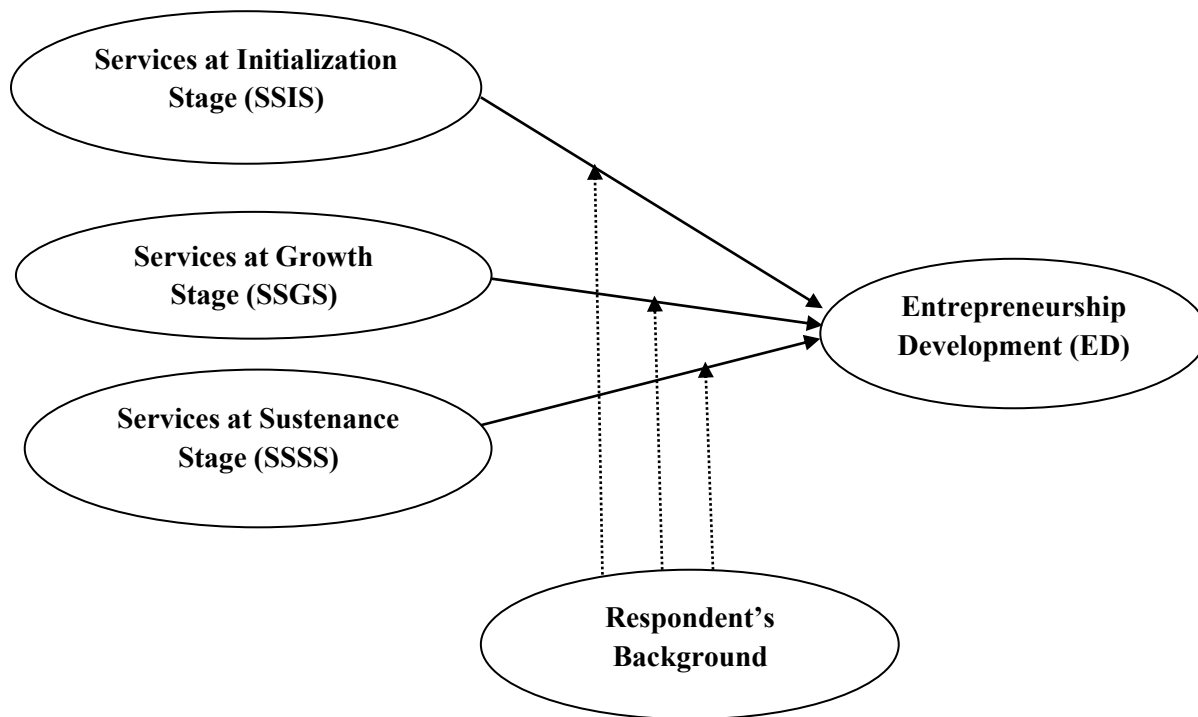


Figure 1: Conceptual framework

Source: Developed by the Authors

Table 1: Major aspects covered by the constructs

SSIS	<ul style="list-style-type: none">- Infrastructure Facilities- Credit Arrangement- Pre-investment Counseling- Primary Training
SSGS	<ul style="list-style-type: none">- Skill Development Training- Information about Market- Information about Customer- Supportive and Creative Managerial Behavior- Creative and Innovative Ideas
SSSS	<ul style="list-style-type: none">- Motivation- Innovation and Change- Training on Technological Application
Respondents' Background	<ul style="list-style-type: none">- Experience as an Entrepreneur- Years of Involvement with BSCIC

4. Survey Methodology

The researchers collected cross-sectional data from Rajshahi, Natore and Bogura districts of Bangladesh following positivism paradigm approach using deductive reasoning applying quantitative approach. This study has been carried out through field survey using structured questionnaires with 6 points Likert Scale. The researchers collected entrepreneurs' opinions regarding the support services provided by BSCIC using a 6-point Likert scale range from 1 for strongly disagree to 6 for strongly agree. A total number of 243 responses were collected through face-to-face interaction with the respondents. This sample size fulfills the necessary condition of required sample size i.e., the researchers used 23 observed variables, so the optimum sample size is 230, considering 10 samples per variable (Hair et al., 2019). The perceptions of the entrepreneurs were measured through 3 exogenous variables i.e. support services provided by BSCIC at the initial stage, growth stage and sustenance stage and 1 endogenous variable i.e. entrepreneurship development. Entrepreneurs' demographic characteristics such as years of experience as an entrepreneur, and number of years involved with BSCIC were used as moderating variables to measure relationship between exogenous and endogenous variables. Structural Equation Modeling (SEM) with partial least squares (SmartPLS 4.0) software was used for data processing and analysis.

4.1 Survey Instrument

A structured questionnaire used for conducting this study consists of two parts. The first part consists of the demographic profile of the respondents. The demographic part included gender, age, marital status, level of education, years of experience and involvement with BSCIC. The second part of the structured questionnaire contained questions relevant to different stages of entrepreneurship development cycle. This questionnaire was prepared using multi-item questions using a 6-point Likert scale. To collect the perceptions of entrepreneurs regarding support services provided by the BSCIC 4 items were used at the initial stage, 7 items were used at the growth stage and 6 items at the sustenance stage (see Table 3 for the sources of original scale items). The items of instrument have been taken from Abdullah and Latif (2014); Alauddin and Chowdhury (2015); Bux and Van Vuuren (2019); Dana et al. (2021); Duong (2022); Hurley and Hult (1998); Jiatong et al. (2021); Kabir et al. (2023); Latif and Khanom (2013); Uddin (2013) and Zengyu et al. (2013) with modifications to suit the purpose.

4.2 Respondents' Profile

The demographic profile of the respondents (N = 243) are as follows:

Table 2: Respondents' Profile

		% & N
Gender	Female	33.74% (N=82)
	Male	66.26% (N=161)
Age	18-23 Yrs	3.70% (N=9)
	24-29 Yrs	9.46% (N=23)
	30-35 Yrs	23.06% (N=56)
	<36 Yrs	63.78% (N=155)
Marital Status	Married	95.47% (N=232)
	Unmarried	4.53% (N=11)
Education	Graduates	32.70% (N=79)
	Undergraduates	67.30% (N=164)
Experience as an Entrepreneur	< 5 to 10 Yrs	30.60% (N=74)
	< 10 Yrs	69.4% (N=169)
Involvement with BSCIC	>2 to 2 Yrs	29.60% (N=72)
	<2 to 5 Yrs	32.70% (N=79)
	< 5 to 10 Yrs	4.10% (N=10)
	< 10 Yrs	33.70% (N=82)

Table 3: Items relating to the Measurement

Scale items	Original scale item	Source of original scale item
SSIS1	The institution provides infrastructural facilities for generating entrepreneurs.	Latif & Khanom, 2013
SSIS2	The organization provides facilities to start a new business.	Kabir et al., 2023
SSIS3	NGOs arrange credit to the entrepreneurs.	Duong, 2022
SSIS4	At the very initial stage, it needs raw material and machinery for the entrepreneurs.	Bux & Van Vuuren, 2019
SSGS1	Pre-investment counseling program promotes entrepreneurs.	Jiatong et al., 2021
SSGS2	The institution arranges basic training programs for the entrepreneurs.	Kabir et al., 2023
SSGS3	Encouragement of subcontracting relationships with other firms to promote entrepreneurs.	Dana et al., 2021
SSGS4	The organization offers encouragement and resources for entrepreneurs to pursue management and skill-based training.	Hurley & Hult, 1998
SSGS5	BSCIC facilitates access to data concerning market dynamics and customer behavior for entrepreneurs.	Kabir et al., 2023
SSGS6	BSCIC does not consider age for providing entrepreneurship development facilities and services.	Kabir et al., 2023
SSGS7	Gender considerations are not integrated into organization's support service delivery.	Alauddin & Chowdhury, 2015
SSSS1	Organizations foster innovation by sharing forward-thinking ideas with entrepreneurs to strengthen their enterprises.	Dana et al. (2021)
SSSS2	Training programs can equip entrepreneurs with the knowledge needed to implement new technologies.	Alauddin & Chowdhury, 2015
SSSS3	Modern ICT infrastructure can navigate changing business environments.	Jiatong et al., 2021
SSSS4	Entrepreneurs with higher levels of education are more likely to receive attention from BSCIC.	Kabir et al., 2023
SSSS5	It needs regular exhibits a collaborative and forward-thinking attitude in supporting entrepreneurs.	Uddin et al., 2013
SSSS6	BSCIC actively supports entrepreneurs in sustaining their established ventures.	Kabir et al., 2023
ED1	Entrepreneurial activity is being stimulated by the services and resources provided by organizations.	Abdullah & Latif, 2014
ED2	BSCIC offers developmental support services to entrepreneurs during their growth phase.	Kabir et al., 2023
ED3	BSCIC delivers essential support services to help entrepreneurs maintain long-term sustainability.	Kabir et al., 2023
ED4	BSCIC guarantees support services to entrepreneurs that extend beyond their individual backgrounds.	Zengyu et al., 2013

*Note: SSIS= Services at Initial Stage, SSGS= Services at Growth, SSSS= Stage Services at Sustenance Stage and ED= Entrepreneurship Development

5. Results

5.1 Goodness of Measurement Model

In this study, the Variance Inflation Factor (VIF) seems to be no problem concerning multicollinearity between exogenous variables since the values of the VIF are lower than 5 (Hair

et al. 2014). In the measurement model (Table 3), the current study performs factor loading, Cronbach's Alpha (CA α), composite reliability (CR), and average variance extracted (AVE) to establish the convergent validity (Sarstedt et al., 2020). This study employed a cut-off point of 0.60 for loading, as recommended by (Hair et al. (2019); Scholtz et al. (2016) and Zaid and Al-Manasra, (2013) and to get better AVE and CR. The following table 3 showed that through assessing the main loading, five items were deleted, as they were loaded below 0.60 (SSIS3, SSGS6, SSGS7, SSSS4 & ED4). The other results exceeded different threshold values, i.e. CA α > .70 (Shmueli et al., 2019); CR is suitable in the range of 0.70 to 0.95 (Hair et al., 2019) and the AVE for the items loading on a construct, must be above the suggested value of 0.5 (Rigdon et al., 2017).

Table 4: Convergent Validity of the Measurement Model

Construct	Measurement item	Outer loading	CR (rho_a)	CR (rho_c)	AVE	CA α
ED	ED1	0.922	0.948	0.964	0.899	0.944
	ED2	0.929				
	ED3	0.992				
	ED4	0.087				
RB	RB1	0.902	0.880	0.921	0.854	0.832
	RB2	0.946				
SSGS	SSGS1	0.640	0.988	0.885	0.613	0.857
	SSGS2	0.632				
	SSGS3	0.928				
	SSGS4	0.733				
	SSGS5	0.926				
	SSGS6	-0.640				
	SSGS7	-0.067				
SSIS	SSIS1	0.906	0.853	0.911	0.773	0.852
	SSIS2	0.912				
	SSIS3	0.343				
	SSIS4	0.817				
SSSS	SSSS1	0.889	0.866	0.894	0.632	0.857
	SSSS2	0.867				
	SSSS3	0.704				
	SSSS4	0.276				
	SSSS5	0.643				
	SSSS6	0.844				

Table 5 shows Fornell-Larcker criterion for assessment for discriminant validity that all the values on the diagonals are greater than the corresponding row and column values indicating that the constructs are discriminant valid.

Table 5: Discriminant Validity of Constructs-Fornell-Larcker Correlation Check

Construct	ED	SSGS	SSIS	SSSS
ED	0.971			
SSGS	-0.755	0.926		
SSIS	0.698	-0.254	0.923	
SSSS	0.815	-0.422	0.879	0.926

Note: ED= Entrepreneurship Development, SSGS= Support Services at Growth Stage, SSIS= Support Services at Initialization Stage, SSSS= Support Services at Sustenance Stage

Each construct is listed along the top and left-hand side, and the correlation coefficients between them are provided in the table. The diagonal elements represent the square roots of the Average Variance Extracted (AVE) for each construct. These values in the diagonal must be higher than the correlations between the constructs to demonstrate discriminant validity, according to Fornell-Larcker (1981). As Table 5 shows that all the inter-construct correlations are lower than the square roots of the AVEs, the constructs (ED, SSGS, SSIS, SSSS) are distinct from each other. This indicates that each construct measures a unique underlying concept and does not overlap substantially with the others, supporting the discriminant validity of the measurement model.

Heterotrait-Monotrait Ratio (HTMT)

Table 6: Heterotrait-Monotrait Ratio (HTMT) Criteria

Construct	ED	SSGS	SSIS	SSSS
ED				
SSGS	0.701			
SSIS	0.773	0.535		
SSSS	0.820	0.650	0.890	

The above Table 6 presents the HTMT criteria, which is a method used to assess discriminant validity in SEM or confirmatory factor analysis. In this table, each cell represents the HTMT ratio between two constructs. The HTMT ratio is calculated as the ratio of the correlation between two constructs to the geometric mean of the AVE of the constructs. It ranges from 0 to 1, where values closer to 0 indicate better discriminant validity. The HTMT ratio should ideally

be below a certain threshold, typically 0.85, to ensure adequate discriminant validity. If the HTMT ratio exceeds this threshold, it suggests that the constructs may not be sufficiently distinct from each other. In this table, the HTMT ratios are provided for each pair of constructs. All values in the table are below 0.85 (except the ratio between SSIS and SSSS), indicating that the constructs exhibit adequate discriminant validity. This suggests that each construct measures a distinct underlying concept and does not overlap substantially with the others. Therefore, the measurement model demonstrates satisfactory discriminant validity according to the HTMT criteria.

5.3 Inner Model Evaluation

According to Hair et al. (2018) the analysis of inner model is done by the estimations of effect size (f^2), coefficient of determination (R^2), and cross validated redundancy (Q^2). The following Figure 2 & 3 shows the inner model evaluation of both direct and indirect effects of exogenous, moderating, and endogenous variables of this study. The f^2 equation indicates how enormous a quantity of the unexplained variance is accounted for by R^2 change (Hair et al., 2014). In this study the results of f^2 are:

Table 7: Effect Size (f^2)

Relations	f^2	Remarks
SSIS \rightarrow ED	0.142	Medium
SSGS \rightarrow ED	0.001	Small effect
SSSS \rightarrow ED	0.248	Medium
RBxSSIS	0.205	Medium
RBxSSGS	0.049	Small effect
RBxSSSS	0.139	Medium

Figure 2 shows that 87% of the variability in the endogenous variable can be explained by the variability in the exogenous variables, which is very high. While the model with moderating variables (Figure 3) exhibits an R^2 of 91.2%, meaning that the independent variables along with the moderators can explain 91% of the variance in the dependent variable. Therefore, the respondent background has a considerable impact on the relationship of entrepreneurship development and services provided by the BSCIC at the initialization, growth and sustenance

stage. The model is considered to have predictive relevance as all values of the Q^2 are higher than zero, so, the model has sufficient predictive relevance.

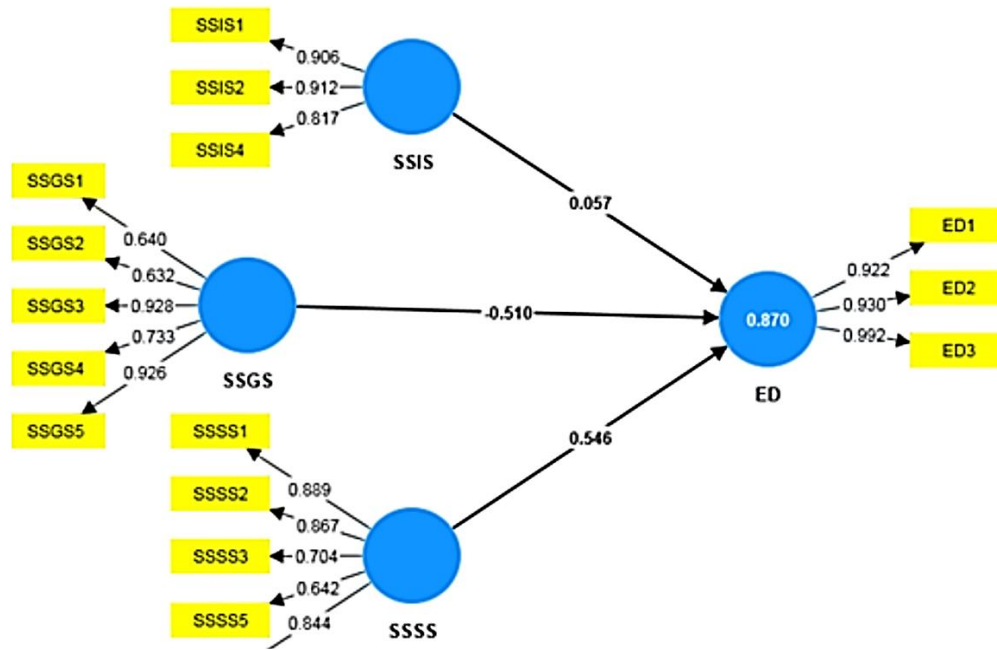


Figure 2: Inner Model Evaluation

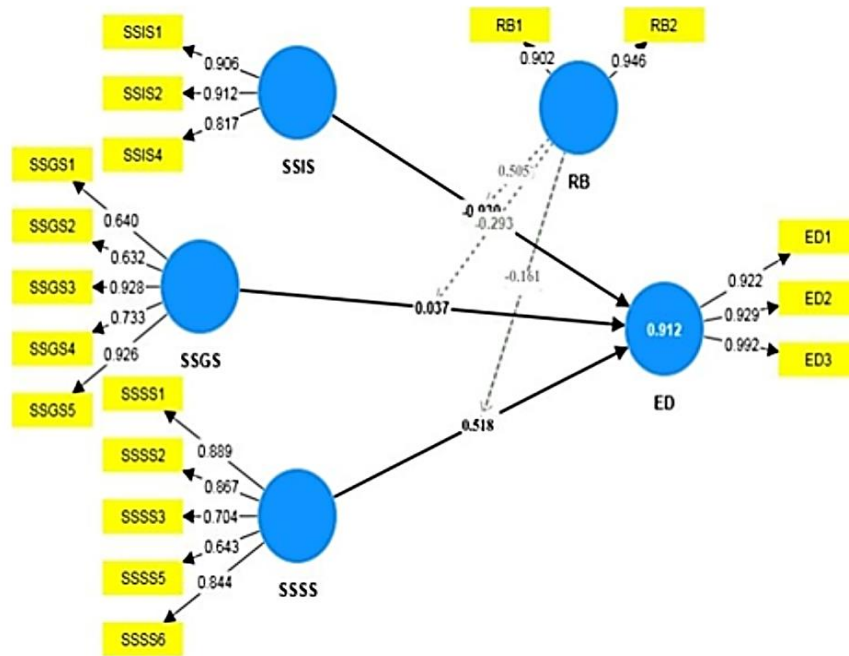


Figure 3: Inner Model Evaluation

5.4 Path Coefficient and Hypothesis Testing

The results of the hypotheses are summarized in Table 8 showing that all hypotheses were not supported.

Table 8: Summary of Hypotheses

Hypothesis	Direct Path	β	SE	<i>t-value</i>	<i>p-value</i>	Decision
H ₁	SSIS → ED	-0.930	1.412	0.659	0.510	Not Supported
H ₂	SSGS → ED	0.037	0.257	1.710	0.020	Supported
H ₃	SSSS → ED	0.518	0.932	8.086	0.000	Supported
H _{4a}	RB x SSIS → ED	0.505	2.156	7.698	0.000	Supported
H _{4b}	RB x SSGS → ED	-0.293	0.577	0.507	0.612	Not Supported
H _{4c}	RB x SSSS → ED	-0.161	0.242	0.518	0.605	Not Supported

Note: $p < 0.05$, (based on Two-tailed test with 5000 bootstrapping)

Table 8 provides a summary of hypotheses testing results, including the direct paths, standardized coefficients (β), standard errors (SE), *t-values*, *p-values*, and decision outcomes. Each hypothesis (H₁ to H_{4c}) represents a proposed relationship between constructs. The direct path column indicates the relationship being tested, such as SSIS to ED. The " β " column shows the standardized coefficients, representing the strength and direction of the relationship. The significance of each coefficient is assessed using the *t-value* and corresponding *p-value*. A lower *p-value* indicates stronger evidence against the null hypothesis, suggesting a significant relationship. Typically, a *p-value* less than 0.05 is considered statistically significant. The decision column summarizes the outcome of hypothesis testing. If the *p-value* is less than 0.05, the hypothesis is considered supported, indicating a statistically significant relationship between the constructs. Conversely, if the *p-value* is greater than or equal to 0.05, the hypothesis is considered not supported, suggesting insufficient evidence to conclude a significant relationship. The relationship between SSIS and ED is not supported, as the *p-value* (0.510) is greater than 0.05. The relationship between SSGS and ED is supported, with a significant *p-value* (0.020). The relationship between SSSS and ED is supported, with a highly significant *p-value* (0.000). The moderating effect of RB and SSIS on ED is supported, with a highly significant *p-value* (0.000). The interaction effect of RB and SSGS on ED is not supported, as the *p-value* (0.612) is greater than 0.05. The interaction effect of RB and SSSS on ED is not supported, as the *p-value*

(0.605) is greater than 0.05. Overall, the results suggest varying levels of support for the hypotheses, with some relationships being statistically significant while others are not.

6. Discussions on the Findings of the Study

BSCIC has an important role to play in the economic activities of the country. It is providing support to grow SCIs where underlying forces are entrepreneurs. The effective and dynamic activities of BSCIC help in developing entrepreneurs, which in turn has a positive impact on economy and economic growth, besides it being the patronizing organization monitoring the amount of investment and number of employments generated in the SCIs sector. From its inception BSCIC has been launching various programs for the development of entrepreneurship being guided by the related policies enacted from time to time by the government. This study explored the support services such as infrastructure facilities, credit arrangement, pre-investment counseling, primary training, skill development training, information about market, information about customer, supportive behavior; upholding creativity, motivation, innovation & change, training on technological application etc. provided by BSCIC at the initialization, growth, and sustenance stage of entrepreneurship development in the Northern Zone of Bangladesh which will help the policy makers, executives, and academics to make proper policies for entrepreneurship development. These findings confirmed the appropriateness of the research model in using the institutional and stakeholder theories as its theoretical bases underpinning the model. The following sections discuss the findings related to the individual hypotheses proposed earlier.

The result regarding H_1 ($\beta = -0.930$, $t = 0.659$, $p < 0.5100$) showed that the perception of entrepreneurs regarding the support services provided by the BSCIC for entrepreneurship development at the initialization stage is insignificantly negative. Though, from the literature and field study reports of BSCIC industrial estates informs that BSCIC provides various infrastructural facilities like developed plot, road connectivity and utility connections (like gas, water, electricity), and other services like post office, banks, etc. (Jasmin & Mamun, 2009); the experienced entrepreneurs having longer involvement with BSCIC (H_{4a} : RB & SSIS interaction term) consider that the support services at the initial stage are still negatively contributing to entrepreneurship development. In this regard, the supporting function of providing venture

capital to the incubators (Rosa et al., 2019) and appropriate technological guidance (Chakarborty & Broman, 2012) may be considered inadequate by the respondents. But this negative perception is not statistically significant.

The outcome of earlier in-depth interviews (an associated project of the researchers) of the 19 respondents showed that BSCIC used to be the prime institution to provide necessary training conducted by its training arm, Small and Cottage Industries Training Institute (SCITI). Since its establishment in 1985, SCITI had conducted training courses for over 24,000 participants, mostly to prospective and existing entrepreneurs as well as managers of SMEs enterprises. Regarding these issues, sub-contracting arrangement, management, and skill development training, and market study significantly affect the growth of entrepreneurs. Similar results have been found, that is, the support services by the BSCIC at the growth stage such as skill development training, market information, customer related information are perceived positively (statistically significant relationship, though the impact is little, around 4%) by the entrepreneurs ($H_2: \beta = 0.037, t = 1.710, p < 0.020$). Therefore, H_2 is supported.

Another hypothesis developed and tested ($H_3: \beta = 0.518, t = 8.086, p < 0.000$) found that the perception of the entrepreneurs is significantly positive towards support services such as motivation, promoting innovation, promoting change and providing training on technological application provided by the BSCIC at the sustenance stage. Sustainable development of entrepreneurship generates greater economic benefit for both the entrepreneur and the country. It may depend on the factors like motivation of entrepreneurs, innovation, and application of new technology, and collaborative attitudes. As innovativeness could lead to the development of creative and new ideas that help to gain considerable success in entrepreneurial development (Hurley, et al., 1998), the study results reflect that the support services provided by BSCIC for the entrepreneurs in the sustenance stage are positively influencing entrepreneurship development.

This study also developed a moderating impact of entrepreneurs' background characteristics such as experience and years of involvement with BSCIC between support services at initialization stage, growth stage, and sustenance stage and entrepreneurship development. From Table 8, it is found that the moderating impact of entrepreneurs' background characteristics between support services at initialization stage on entrepreneurship development is significant

(H_{4a}: $\beta = 0.505$, $t = 7.698$, $p < 0.000$). The moderating impact at growth stage and sustenance stage regarding the service provided by the BSCIC and entrepreneurship development are not significant (H_{4b}: $\beta = -0.293$, $t = 0.507$, $p < 0.612$) (H_{4c}: $\beta = -0.161$, $t = 0.518$, $p < 0.605$).

7. Implications of the Study

The findings of this paper have practical implications to enhance entrepreneurship development in Bangladesh. The empirical result also recommended some solutions to the problems of the slow progression of entrepreneurial development in the Northern Zone of Bangladesh. Most specifically, firstly, for policymakers, the study provides valuable insights into the effectiveness of support services offered by BSCIC in fostering entrepreneurship generation, growth, and sustainability. By understanding entrepreneurs' perceptions, policymakers can identify gaps in current policies and initiatives and tailor interventions to better meet the needs of entrepreneurs. This may involve reallocating resources, refining existing programs, or introducing new initiatives aimed at addressing specific challenges identified in the study. Secondly, industry executives can benefit from the research findings by gaining a deeper understanding of the factors that influence entrepreneurship development in Bangladesh. By aligning their strategies with the needs and preferences of entrepreneurs, industry executives can enhance their support mechanisms and strengthen their collaboration with organizations like BSCIC. This could lead to improved access to resources, better training programs, and more effective market support for entrepreneurs. Academics can also derive value from this research by building upon the findings to further explore the dynamics of entrepreneurship development in Bangladesh. This may involve conducting longitudinal studies to track the progress of entrepreneurs over time, exploring the impact of external factors such as policy changes or economic trends on entrepreneurship, or delving into specific aspects of support services in greater detail. Lastly, entrepreneurs themselves stand to benefit from the insights generated by this research. By understanding how their perceptions of support services influence their entrepreneurial journey, entrepreneurs can make more informed decisions about resource allocation, training opportunities, and strategic partnerships. Additionally, by advocating for changes based on the research findings, entrepreneurs can contribute to a more conducive environment for entrepreneurship in Bangladesh. Overall, the implications of this research work are far-reaching and have the potential to drive positive change in the entrepreneurship ecosystem of Bangladesh,

ultimately contributing to economic growth, job creation, and societal development. Finally, the outcome of this study will contribute to existing literature by adding knowledge regarding the perceptions of the entrepreneurs towards the support services provided to them by BSCIC.

8. Limitations and future research directions

This study was conducted in the Northern Zone of Bangladesh only, which can be considered as one of the limitations. Therefore, in future, investigations with larger area coverage may add value and help improve generalization regarding the support services perceived by the respondents. Since this research only employed quantitative measures to measure perceptions of the entrepreneurs towards the support services provided to them by BSCIC which may lack an in-depth understanding of the current issue. Therefore, in future, researchers may employ mixed methods to generate more reliable findings.

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Authors Contributions

Md. Mahbubul Kabir: Conception & Design, Literature review, Conceptual framework & Instrument development, Data collection, & Writing- original draft

ANM Jahangir Kabir: Conception & Design, Interpretation of data, & Manuscript: review & editing.

Md. Shawan Uddin: Data: Collection & analysis, Writing: editing and final review.

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Appendix-A

<p>Listed below are the statements that measure the perceptions towards the support services provided to you by the BSCIC.</p> <p>Please read each statement carefully, then indicate the extent to which you disagree or agree by checking the appropriate number on a scale of 1 (Strongly Disagree) to 6 (Strongly agree). Please mark tick (✓) the most appropriate answer.</p>	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6

1	BSICIC has got required infrastructural facilities to generate entrepreneurs.	1	2	3	4	5	6
2	BSCIC provides infrastructure facilities to start a new business.	1	2	3	4	5	6
3	BSCIC arranges credit facilities for the prospective entrepreneurs.	1	2	3	4	5	6
4	BSCIC fulfils the requirement of raw material and machinery for the entrepreneurs at the initial stage.	1	2	3	4	5	6
5	BSCIC has a pre-investment counseling program.	1	2	3	4	5	6
6	BSCIC arranges basic training programs for the prospective entrepreneurs.	1	2	3	4	5	6
7	BSCIC attempts to encourage subcontracting relationships with other Firms.	1	2	3	4	5	6
8	BSCIC encourages entrepreneurs to attend management and skill development training.	1	2	3	4	5	6
9	BSICIC helps entrepreneurs in providing market and customers related information.	1	2	3	4	5	6
10	BSCIC always has supportive and creative managerial behavior towards entrepreneurs.	1	2	3	4	5	6
11	BSCIC always motivates entrepreneurs to carry on their existing business.	1	2	3	4	5	6
12	BSCIC inspires entrepreneurs to provide more facilities for who are committed to being successful entrepreneurs.	1	2	3	4	5	6
13	BSCIC always shares creative and innovative ideas with entrepreneurs to add value to their businesses.	1	2	3	4	5	6
14	BSCIC arranges training program relating to the knowledge and application of new technology.	1	2	3	4	5	6
15	BSCIC provides information and communication technology to entrepreneurs to adapt to changing trends.	1	2	3	4	5	6
16	BSCIC does not consider age for providing entrepreneurship development facilities and services.	1	2	3	4	5	6
17	BSCIC does not consider gender issues in providing support services.	1	2	3	4	5	6
18	BSCIC prefers entrepreneurs who are more educated.	1	2	3	4	5	6
19	BSCIC does not emphasize experienced entrepreneurs only.	1	2	3	4	5	6
20	Entrepreneurs are being developed through support services provided by BSCIC.	1	2	3	4	5	6
21	BSCIC is providing support services at growing stage for the development of entrepreneurs.	1	2	3	4	5	6
22	BSCIC provides necessary support services for the sustainability of entrepreneurs.	1	2	3	4	5	6
23	BSCIC ensure support services to entrepreneurs beyond their personal profile.	1	2	3	4	5	6