

Research Article

Planned Behavior and Perceived Job Crisis: Modeling Entrepreneurial Intention among Private University Students

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Abstract

Purpose - This study explores the relationships among attitudes toward entrepreneurship, subjective norms, perceived behavioral control, perceived job crisis, and students' entrepreneurial intention in a labor-constrained economy.

Methodology - The study employed a quantitative, explanatory research design, with a cross-sectional survey of 317 undergraduate and postgraduate students from private universities in Bangladesh. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM).

Findings - The findings suggest that the strongest predictor of entrepreneurial intention is the perceived behavioral control. The effect of perceived job crisis is also positive and significant, suggesting that employment uncertainty is a push factor for entrepreneurship. The attitude toward entrepreneurship is significantly but negatively correlated with the entrepreneurial intention, whereas the subjective norms do not have a significant impact. Altogether, the model describes a significant percentage of the variance in entrepreneurial intention, which proves the applicability of contextual labor market perception as well as cognitive determinants.

Implications and Value - This paper adds to the entrepreneurship literature by incorporating the perceived job crisis into the framework of TPB, bringing a behavioral-contextual explanation of the entrepreneurial intention in a developing economy. It offers empirical data to prove that entrepreneurship activity among the graduates of private universities can be mostly driven by necessity, not by social pressure and favorable attitudes.

Keywords: job crisis, entrepreneurial intention, theory of planned behavior, PLS-SEM.

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1. Introduction

1.1 Background of the Study

Entrepreneurship has become a crucial tool of economic development, innovation, and job creation in developing economies (Audretsch & Thurik, 2001; Nabi et al., 2018). The 21st century is presenting Asian countries, and Bangladesh, in particular, with the twin problem of a population of highly educated youth with a rapidly expanding population and a small formal job market (World Bank, 2023). The lack of relevance between the increasing number of graduates and the quality of available jobs has fueled the anxieties about employability and career sustainability. Due to the inability to occupy with the traditional method of employment, the process of entrepreneurship is becoming more and more accepted as an alternative form of career, which can make job seekers job creators (Linan & Fayolle, 2015; Salamzadeh, 2018).

The sector of private higher education in Bangladesh has expanded manifold since the 1990s, and nowadays there are more than 100 private universities that are enrolling hundreds of thousands of students (University Grants Commission, 2023). Although this growth has played a significant role in developing human capital, it has also created competition in the employment sector, especially among graduates in business and social sciences (Rahman & Akter, 2021). The Bangladesh Bureau of Statistics (BBS, 2022) indicates that the rate of unemployment among university graduates is above 12%, which is significantly higher than the national average. Private university graduates have other obstacles, usually the preference of public university graduates by employers, a mismatch of skills, and the lack of organized internships (Mia & Hossain, 2020). As a result, the concept of entrepreneurial intention (EI) has gained scholarly and policy interest, as it refers to the psychological preparedness and motivation tendency of graduates to participate in entrepreneurship (Krueger et al., 2000; Linan & Chen, 2009).

Entrepreneurial intention is the psychological state that underlies entrepreneurial action, and is the nearest predictor of entrepreneurial action (Ajzen, 1991; Bird, 1988). The Theory of Planned Behavior (TPB) (Ajzen, 1991) has emerged as the most predominant theoretical viewpoint for elucidating the influence of individual attitudes, social pressures perceived, and perceived behavioral control on the intentions of entrepreneurs. The predictive strength of TPB has been confirmed by many studies in different settings (Linan & Fayolle, 2015; Schlaegel & Koenig, 2014). Nonetheless, its usage in a situation where job insecurity is high and where graduates are in high employment is under-researched, especially in South Asian economies like Bangladesh. The subjective phenomenon of having fewer employment opportunities, the perceived job crisis, may serve as a push and pull factor in entrepreneurial intention (Haque, 2022). It can invite students to consider self-employment as either a need-based reaction or as a way to bring about personal dreams.

1.2 Problem Statement

The rising cases of unemployed or underemployed graduates in Bangladesh are indicative of an imbalance between the organization of higher education production and labor market needs (Rahman et al., 2022). With the acquired academic qualifications, most of the graduates are not able to secure jobs that suit their skills, qualifications, and salary requirements. In a 2023 report released by the Center for Policy Dialogue (CPD), it was discovered that almost 47 percent of university graduates in the private sector are jobless six months after graduation.

Among graduates, employers always refer to the shortage of practical skills, entrepreneurial abilities, and creative thinking (Ahsan & Ferdous, 2021). This constant employment crisis not only jeopardizes the economic well-being of educated youth but also poses a social quandary that makes people less confident in higher education as a career-creating tool.

Here, it is important to learn the impact of perceived job insecurity on entrepreneurial intentions. Although the literature acknowledges the existence of different antecedents of entrepreneurial intention, including self-efficacy, attitude, and subjective norms, few studies have incorporated perceived job crisis as a contextual factor within the TPB (Mahfud et al., 2020; Farani et al., 2017). Besides, most empirical research focuses on Western economies or government universities in developing countries and excludes the student bodies of private universities, which are typically a distinct population with different socioeconomic drivers (Rahman & Mia, 2023).

The other gap is the perception of job crisis as either a motivating factor (pulling the person toward becoming self-employed) or discouraging (making the person less confident in their ability and perceived possibility of becoming an entrepreneur). Previous literature provides inconclusive results. Indicatively, Turker and Selcuk (2009) concluded that employment uncertainty positively affects entrepreneurial motivation. Still, Nabi and Linan (2013) proposed that an extreme level of job insecurity can result in psychological pressure, which impedes risk-taking. Hence, it needs a subtle empirical model to examine the combined effects of perceived job crisis and the major elements of TPB, which include an attitude towards entrepreneurship, subjective norms, and the perceived behavioral control, to influence entrepreneurial intentions in the group of private university students.

1.3 Research Objective

This paper seeks to simulate the impact of perceived job crisis on entrepreneurship intention among students of a private university based on the framework of the Theory of Planned Behavior. Particularly, it aims at establishing the role of perceived job crisis on the attitudes held by students towards entrepreneurship, their perceived behavioral control, and subjective norms, as well as their overall entrepreneurial intention.

1.4 Significance of the Study

Theoretically, it builds on the Theory of Planned Behavior by incorporating a new contextual construct, perceived job crisis, into the entrepreneurial intention model. Although TPB focuses on internal cognitive and social determinants, this experiment presents a structural and situational variable that indicates economic realities in developing countries. By examining the interaction between job scarcity perception and cognitive antecedents, the research may be regarded as improving the TPB framework in the labor-constrained settings (Schlaegel & Koenig, 2014; Krueger et al., 2000).

Practically, findings will guide policymakers, educators, and institutions of higher learning on the motivational processes that induce or inhibit entrepreneurial behavior among graduates. Specifically, these understandings can be used by private universities to restructure the curriculum to develop entrepreneurial skills, increase experiential learning, and promote start-ups that are based on innovation. Furthermore, the relationship between job crisis perceptions and entrepreneurial motivation may be used to ensure governments

create young-focused entrepreneurship programs and financial stimulants based on the current conditions in the labor market (World Bank, 2023; Islam et al., 2022).

On the social level, entrepreneurship should be encouraged among graduates of universities, as it provides a long-term outlet for youth unemployment, innovation, and contributes to the Bangladesh Vision 2041 agenda that envisions the nation will shift to a knowledge-based, innovation-driven economy.

1.5 Novelty and Contribution of the Study

Although the TPB has been extensively utilized in explaining entrepreneurial intention, most studies have mostly considered the psychological variables and neglected the contextual economic stressors, such as perceived job crisis (Linan & Fayolle, 2015). In the present research, a behavioral-contextual extension of the TPB was presented, and it was determined that perceived job crisis is a moderating or mediating variable that affects the association between the cognitive constructs and the entrepreneurial intention. This method corresponds to recent academic demands to situate entrepreneurship studies in the context of certain socio-economic truths (Fayolle & Linan, 2014; Welsh et al., 2016).

The novelty of the study is in four areas:

Contextual Integration: It incorporates the notion of perceived job crisis into the conceptualization of the TPB framework, thus providing a more detailed view of how entrepreneurial intention is formed in the context of unpredictable jobs.

Population Focus: It targets a particular group, which is the population of the private university students, who have not been well represented in empirical studies on entrepreneurship in the South Asian region, yet they are the biggest producers of business graduates in Bangladesh.

Behavioral Hypothesis: It empirically tests whether job crisis perception is a push factor that will arouse entrepreneurial intention, or it is a pull factor that will weaken self-efficacy and perceived behavioral control.

Policy Implications: It can offer practical implications to curriculum development, graduate employability policy, and national policy on entrepreneurship by presenting the relationship between psychological determinants and macroeconomic problems.

Such an integrated behavioral framework also serves to raise new literature concerning crisis-driven entrepreneurship (Davidsson & Thurik, 2022), with an emphasis on how the socio-economic shock and employment insecurities influence the entrepreneurial ecosystems. By so doing, the study transcends past models that factor in entrepreneurship as a one-choice decision, and it is rather a socially and economically institutionalized behavior modified by perceived opportunity structures.

2. Literature Review

2.1 Theory of Planned Behavior (TPB)

One of the strongest frameworks that can be used to explain the antecedents of human intention and behavior is the Theory of Planned Behavior (TPB), which was introduced by Ajzen (1991). TPB includes the behavioral intention as the strongest predictor of actual behavior and is affected by three main components: attitude to the behavior, subjective norms,

and perceived behavioral control. When applied to entrepreneurship, the components lead to a positive or negative perception of the entrepreneur on starting a business (attitude), the perceived social support of entrepreneurship (subjective norms), and the perceived ease or difficulty in undertaking entrepreneurship (perceived behavioral control).

Empirical research has unanimously confirmed the predictive validity of TPB when, in relation to entrepreneurial intention (EI) (Krueger et al., 2000; Linan & Fayolle, 2015; Schlaegel & Koenig, 2014). The attitude to entrepreneurship is a measure of the extent to which the individual regards entrepreneurship as desirable, rewarding, and in line with one's personal goals. Subjective norms are those felt expectations regarding entrepreneurial activity of the family, peers, and society. Lastly, there is perceived behavioral control (PBC), which is similar to entrepreneurial self-efficacy, which shows the confidence of the individual to perform entrepreneurial activities (Ajzen, 1991; Zhao et al., 2005).

The TPB model is especially applicable to comprehending entrepreneurship intentions among students because in a university, it is a socialization environment where values, norms, and career goals are developed (Fayolle & Linan, 2014). Nevertheless, the initial version of the model emphasized cognitive determinants and had little to say about structural and contextual factors, such as the lack of employment or perceived job insecurity-inducing factors, which are of paramount importance in developing economies, including Bangladesh (Mahfud et al., 2020; Rahman & Mia, 2023). Therefore, this research is an empirical extension of the TPB with the inclusion of perceived job crisis as an external construct of the situation that impacts, and possibly modulates, the relationship between cognitive antecedents and entrepreneurial intention.

2.2 Entrepreneurial Intention and Graduate Job Market

Entrepreneurial intention is a state of consciousness that guides the attention, experience, and behavior of an individual towards an entrepreneurial activity that is planned (Bird, 1988). Many research works have established that intention antecedes and predicts actual entrepreneurial action (Krueger et al., 2000; Linan & Chen, 2009). The EI among university students will be the psychological willingness to become an entrepreneur in the future due to personal traits, educational background, and perceived environmental factors (Nabi et al., 2018).

The market situation of graduates, especially those from private universities, is characterized by stagnation and oversaturation in Bangladesh. Over 600,000 new graduates enter the labor market annually, with only a small part of them receiving official jobs within the first year after completing college (BBS, 2022; UGC, 2023). The lack of critical thinking, innovation, and leadership skills is frequently mentioned by employers (Rahman & Akter, 2021). In this regard, entrepreneurship is a need-based, chance-driven decision (Haque, 2022). The necessity-based entrepreneurship theory (Acs et al., 2008) posits that people resort to self-employment when they cannot find wage jobs or when those jobs are insecure. The perceived job crisis can thus become a critical determinant in the intentions of entrepreneurship as either a push factor or a psychological counter-factor to motivate or dishearten, based on the personal and situational variables.

2.3 Perceived Job Crisis and Entrepreneurial Intention

Perceived job crisis is a subjective view of perceived limited opportunities in employment, economic insecurity, and doubts about future employability (Nabi & Linan, 2013). In contrast to objective data on unemployment, job insecurity that is perceived reflects the way people perceive the labor market and their future career opportunities. This may affect the cognitive assessment and decision-making concerning entrepreneurship (Mahfud et al., 2020).

The empirical data show that the perceptions of job crisis may have both positive and negative influences on entrepreneurial intention. On the one hand, perceived job scarcity may have a positive effect on EI as it will encourage people to invent their own jobs, which is a hypothesis of the push (Turker & Selcuk, 2009; Nabi & Linan, 2013). For example, in economies where unemployment among the youth is high, entrepreneurship is a strategic move to ensure that they do not depend on the economy. Conversely, overwork insecurity can also have a deleterious impact on EI, causing stress, perceived infeasibility, and self-efficacy (Shapiro & Sokol, 1982; Farani et al., 2017). The perception of a job crisis will influence the entrepreneurship cognition in a complicated way in the context of Bangladesh, where the private sector cannot absorb the rising number of graduates. It can reinforce the propensities towards self-employment and, at the same time, have an impact on the perceived behavioral control based on personal confidence and access to resources (Rahman & Mia, 2023). Thus, perceived job crisis is suggested as one of the primary exogenous constructs that co-interact with TPB variables to form entrepreneurial intention.

H1: Perceived job crisis positively affects the entrepreneurial intention of students in a private university.

2.4 Attitude towards Entrepreneurship

Ethnicity towards entrepreneurship is a positive or negative assessment of an individual about his/her involvement in entrepreneurial activities (Ajzen, 1991; Linan & Fayolle, 2015). The more people find entrepreneurship desirable, rewarding, and favored by society, the more they intend to start a business. The research always indicates that entrepreneurial intention depends more on attitude than on any other factor (Krueger et al., 2000; Schlaegel & Koenig, 2014).

Job uncertainty. In the frame of the job uncertainty, those students who experience formal employment as a problematic one can be more inclined to entrepreneurship with consideration as a safe or satisfying alternative to occupation (Nabi & Linan, 2013). Besides, this positive attitude can be reinforced by entrepreneurship education, role models, and university support (Nabi et al., 2018; Islam et al., 2022). In Bangladesh, entrepreneur perception is being influenced as more universities have started innovation labs and startup incubators, which are being implemented in the private universities (UGC, 2023).

Thus, the hypothesis presented is as follows:

H2: The attitude to entrepreneurship has a positive impact on the entrepreneurial intention of the students at the private university.

Also, the perceived job crisis could support this relationship; however, economic stress increases the perceived value of entrepreneurship.

2.5 Subjective Norms

Subjective norms are the perceived social pressures or demands of an individual to do or not to do some behavior by their important others (family, friends, educators, or society) (Ajzen, 1991). Social approval is a very important factor in the process of career decision-making in collectivist cultures, including Bangladesh (Linan & Chen, 2009; Karimi et al., 2017). Entrepreneurial intention can be improved through supportive family attitudes, peer support, and exposure to entrepreneurial role models (Farrukh et al., 2017). But the social perception toward entrepreneurship in South Asian society remains two-sided. Although business ownership is envied for its financial independence, it is considered risky and uncertain compared with salaried employment (Rahman & Akter, 2021). Consequently, in the case of an escalated perceived job crisis, subjective norms may change to embrace entrepreneurship as a more valid option (Haque, 2022). In this regard, the hypotheses of the study are:

H3: The subjective norms have a positive relationship with entrepreneurial intention among the entrepreneurial intention in the students of a private university.

2.6 The second scale is Perceived Behavioral Control (PBC)

Perceived behavioral control (PBC) is an aspect of the perceived ease or difficulty of engaging in the entrepreneurial act and is comparable to entrepreneurial self-efficacy (Ajzen, 1991; Zhao et al., 2005). Stronger entrepreneurial intentions are developed by those individuals who think that they have the required skills, knowledge, and resources to begin a business (Krueger et al., 2000; Linan & Chen, 2009). Studies have shown that PBC depends on the individual qualities (e.g., education, training, creativity) and the external factors (e.g., access to finance, institutional support). Low perceived behavioral control among young graduates is frequently caused by insufficient access to startup capital, regulatory complexities, and insufficient access to financial services in Bangladesh (Islam et al., 2022). Nevertheless, self-efficacy may be increased with the help of entrepreneurship education, mentoring, and exposure to success stories (Nabi et al., 2018; Mahfud et al., 2020).

In a condition of job crisis, students who feel that there are fewer jobs available to them might be motivated to develop entrepreneurial competencies and thereby, enhance perceived behavioral control (Turker & Selcuk, 2009). On the other hand, the people who lack confidence in their abilities could find self-employment too dangerous or impossible.

Therefore, the following hypotheses are created:

H4: There is a positive and significant relationship between perceived behavioral control and entrepreneurial intention.

2.7 Core Theory

The model extends Ajzen's (1991) Theory of Planned Behavior (TPB) by adding Perceived Job Crisis (PJC) as a contextual antecedent and moderator influencing Entrepreneurial Intention (EI) among private university students. Constructs and Linkages:

- i. Attitude toward Entrepreneurship (ATT) → EI
- ii. Subjective Norms (SN) → EI
- iii. Perceived Behavioral Control (PBC) → EI
- iv. Perceived Job Crisis (PJC) → EI

2.7.1 The analysis of the perceived job crisis will be incorporated into the TPB framework

When a perceived job crisis is incorporated into the TPB framework, a more in-depth explanation of the entrepreneurial intention formation under uncertain conditions of the labor market is obtained. Past research indicates that the contextual factors, which include economic instability, policy climate, and institutional facilitation, have a great impact on the predictive capacity of TPB (Schlaegel & Koenig, 2014; Fayolle & Linan, 2014).

This study hypothesizes that, during the perceived job crisis, employment perceptions on the macro level affect the cognitive process on a micro level. Precisely, job insecurity can increase awareness of entrepreneurship as an option (attitude), stimulate peer and family support of an entrepreneurship career (subjective norms), and provoke self-evaluation of skills (PBC). These relationships are described in Figure 1 (conceptual model), where it is seen that perceived job crisis is a direct predictor of entrepreneurial intention, but a moderator of the TPB pathways.

The latter long-term model is consistent with recent demands in context-sensitive entrepreneurship studies that represent socio-economic reality in new economies (Welsh et al., 2016; Davidsson & Thurik, 2022). It does not just acknowledge entrepreneurship as a personal decision; it is a behavioral adjustment to the structure and a sense of opportunity deficiency.

3. Methodology

3.1 Research Design

The research design of the study is a quantitative, explanatory (Theory of Planned Behavior) (TPB) (Ajzen, 1991), supplemented with the situational construct of perceived job crisis. It aims to establish a model and empirically test the impact of job-scarcity perception on the entrepreneurial intention of the students of a private university in Bangladesh. Quantitative techniques were chosen as the study aims to determine the relationships between the constructs, test the theoretical hypotheses, and prove a structural model with reference to empirical evidence (Creswell & Creswell, 2018). Data were to be collected by means of a cross-sectional survey design based on undergraduate and postgraduate students of business and social science programs at a selected set of private universities. The design enables the researcher to record the change in perceptions, attitudes, and intentions among various groups of students during the same period of time. In order to be reliable and valid, the measurement in the study had to undergo the normal methodological steps in measuring, pretesting, and testing using Structural Equation Modeling (SEM).

3.2 Hypothesized Model Equation

The hypothesized model combines three major constructs of the Theory of Planned Behavior: Attitude toward Entrepreneurship (ATT), Subjective Norms (SN), and Perceived Behavior Control (PBC), with another contextual construct, Perceived Job Crisis (PJC), which are assumed to impact both direct and moderated routes to Entrepreneurial Intention (EI). The hypothesized relationships are represented in Figure 1 (conceptual model):

$$EI = \beta_0 + \beta_1(ATE) + \beta_2(SN) + \beta_3(PBC) + \beta_4(PJC) + \varepsilon$$

ATT, SN, and PBC have a positive effect on EI (Ajzen, 1991; Linan & Chen, 2009).

PJC has a direct effect on EI (Nabi & Linan, 2013). The effects of ATT, SN, and PBC on EI are moderated by PJC (Turker & Selcuk, 2009). The long TPB model acknowledges the interaction between the cognitive processes on the inside and the labor market perceptions on the outside, and provides a more contextualized understanding of entrepreneurial intention in labor-strained economies.

3.3 Population and Sampling

The target population will include the students of the private universities in Bangladesh, which is one of the areas of the country with the most rapid growth of the higher education sector. As of 2023, there are 113 privately run universities under the University Grants Commission (UGC), with a student population of around 400,000, most of them in the business and social sciences fields (UGC, 2023). Owing to the relevance of the study to graduate employability and entrepreneurship, final-year undergraduate and MBA students were used because they are in the most crucial phase of career choice (Nabi et al., 2018). A stratified random sampling method was employed because it had to be representative of the universities in the Dhaka division, which together constitute more than 80 percent of enrollment in the privately operated universities. Before every stratum (region), a random sampling of business and social science faculty students has been performed to constitute a sample.

The power analysis guidelines provided by Cohen (1992) and the recommendation of Hair et al. (2021) regarding SEM analysis (Big Data, 20 respondents per parameter) were used to determine the size of the sample. The model involves a set of about 15 parameters; therefore, at least 300 respondents were needed. This was done by distributing 482 questionnaires, out of which 317 usable responses were delivered (response rate = 66%).

3.4 Data Collection Procedure

The respondents were surveyed using a self-administered structured questionnaire in three months (January-March 2025). The required permissions to conduct ethical compliance were obtained, and informed consent was obtained from all participants (Nunnally & Bernstein, 1994). The questionnaire was administered electronically and in print in Google Forms to allow more people to access and respond.

3.5 Measurement Instrument

Validated scales used to measure all constructs were based on previous research and therefore had content validity and cross-cultural applicability. The answers were measured on a 5-point Likert scale, where the lowest score (1) indicated strongly disagree, and the highest score (5) indicated strongly agree.

Construct: Entrepreneurship attitude (ATT) Linan & Chen (2009); Krueger et al. (2000) Subjective Norms (SN). Ajzen (1991); Linan & Chen (2009). Perceived Behavioral Control (PBC), Zhao et al. (2005); Linan & Fayolle (2015). Perceived Job Crisis (PJC), Nabi & Linan (2013); Rahman & Mia (2023). Entrepreneurial Intention (EI) Linan & Chen (2009); Schlaegel & Koenig (2014). All of the items were placed within the Bangladeshi higher-education and job environment. Coded items were reversed to reduce response bias. Construct relevance was supported by expert validation from three academics, all experts in entrepreneurship and behavioral research.

3.6 Procedures of validity and Reliability

In order to make the measurement model psychometrically robust, a number of validity and reliability tests were conducted:

Internal Consistency Reliability: Cronbach's alpha and Composite Reliability (CR) have been calculated, and acceptable levels \geq are 0.70 (Hair et al., 2021).

Convergent Validity: Evaluated by means of Average variance Extracted ($AVE \geq 0.50$) and standardized factor loadings (> 0.60).

Discriminant Validity: Measured by means of the Fornell-Larcker basis and the ratio of Heterotrait-Monotrait ($HTMT \leq 0.85$).

Common Method Bias (CMB): This is also controlled through procedural remedies (assurance of anonymity, mixed item order) and is assessed through the Harman single-factor test (Podsakoff et al., 2003).

All the indices of reliability and validity were beyond acceptable limits, which indicated that constructs were different, internally consistent, and measured properly.

3.7 Data Analysis Technique

The analysis of the data was provided by the Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4.0 software. The reason behind the use of PLS-SEM was that it is best suited to the analysis of complex, theory-based models that involve many constructs and moderating relationships (Hair et al., 2021).

The analytical procedure was in two steps:

Structural Model Assessment: Hypothesis testing was performed by estimating path coefficients, t-values, and levels of significance using bootstrapping (5,000 resamples). R^2 and Q^2 values were used to test the predictive relevance of the model.

Besides, the interaction terms (product-indicator approach) were used to evaluate the moderation effects of perceived job crisis on TPB relationships. The coefficients of strength of moderating effects were computed as effect sizes (f^2) (Cohen, 1992).

3.8 Justification for Using SEM

The Structural Equation Modeling (SEM) was chosen because it achieves simultaneous estimation of multiple relationships among latent variables and measurement error. Unlike regression analysis, SEM not only measures both direct and indirect effects but also allows testing of a hypothesis in complicated theoretical models like TPB (Mia et al., 2022).

PLS-SEM was also more effective compared to Covariance-Based SEM (CB-SEM), as it exhibits greater strengths in small sample sizes, non-normal data, and extensions of the exploratory model (Hair et al., 2021). Also, PLS-SEM focuses on analysis based on prediction and is consistent with the purpose of this research, which includes predicting entrepreneurial intention in the context of perceived job crisis variability. Also, moderation analysis in SEM allows for an evaluation of whether the perception of a job crisis enhances or dilutes the effects of attitude, subjective norms, and PBC on entrepreneurial intention, which is part of the contribution in the study.

3.9 Analytical outcomes to be expected

According to the previous empirical data (Linan & Fayolle, 2015; Mahfud et al., 2020; Rahman & Mia, 2023), it can be expected that:

- The entrepreneurial intention will be strongly and positively predicted by attitude, subjective norms, and perceived behavioral control (in support of H2, H3, and H4).
- Perceived job crisis will have a direct and positive impact on entrepreneurial intention (H1 supporting) because students would progressively contemplate entrepreneurship as the number of job crisis occasions increases.

The TPB relationships will be mediated by perceived job crisis, which will enhance the impact of attitude and subjective norms but may reduce the PBC-EI relationship between students with low self-efficacy. Such findings would provide empirical evidence for the behavioral-contextual extension of the TPB model and confirm the theoretical assumption that, in many developing economies, entrepreneurship arises from necessity rather than opportunity. The present methodology section provides a detailed description of a rigorous quantitative design to estimate the impact of perceived job crisis on entrepreneurial intention, based on an extended TPB framework, using PLS-SEM. There are reliability and theoretical contributions that are achieved through the utilization of validated instruments, representative sampling, and sophisticated statistical methods. Contextualizing entrepreneurial intention in the context of graduate unemployment in Bangladesh, the research adequately addresses the behavioral theory-socio-economic context. The study provided practical implications for the development of higher education policy and youth entrepreneurship.

4. Findings

4.1 Measurement model adequacy

All indicators used show values of the variance inflation factor (VIF) that are under the conservative cut-off of 3.3, which proves that the issues of multicollinearity are not present in the outer model (Hair et al., 2021). This implies that their indicators make an independent contribution to their constructs and that the likelihood of common method bias in polluting the outcomes will not be present. Collinearity statistics (VIF) – outer model, which has achieved more than threshold values of each item are ATE1 2.194, ATE2 2.249, ATE3 1.991, EI1 1.75, EI2 2.497, EI3 2.148, PBC1 1.533, PBC2 1.521, PBC3 1.559, PJC1 1.511, PJC2 1.826, PJC3 1.619, SN1 2.32, SN2 2.734, SN3 2.514.

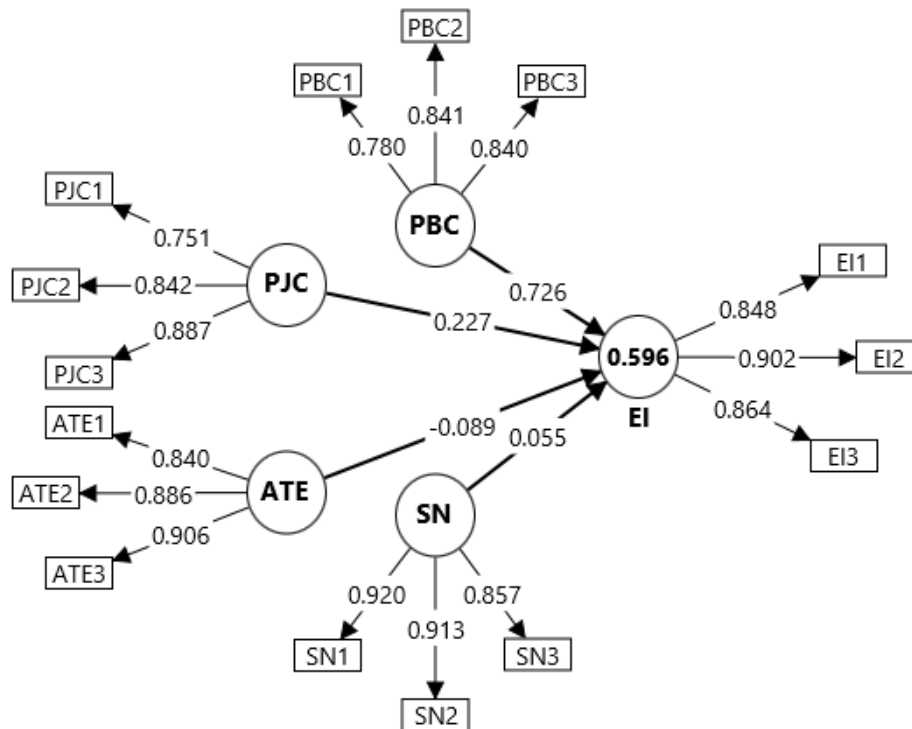


Figure 1: PLS algorithm – measurement model

Source: authors

The measurement model exhibits high psychometric skills. Constructs have satisfactory levels of internal consistency reliability, with Cronbach's alpha and composite reliability scores being greater than 0.70, which is the recommended level (Hair et al., 2021). Also, convergent validity is high because the numbers of the Average Variance Extracted (AVE) of all constructs are more than 0.50 in value, which implies that the indicators serve the purpose of explaining their latent variables in an adequate way (Cohen, 1992).

Table 1: Constructs reliability and validity - Overview

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
ATE	0.856	0.916	0.909	0.770
EI	0.842	0.843	0.905	0.760
PBC	0.761	0.777	0.861	0.674
PJC	0.779	0.851	0.867	0.687
SN	0.884	0.951	0.925	0.805

Source: authors

Table 2 below explores the constructs' discriminant validity. The Fornell-Larcker criterion also establishes the presence of discriminant validity where the square roots of AVE of the individual construct are greater than the inter-construct correlations (Cohen, 1992). This affirms that there are empirically distinct constructs for Attitude toward Entrepreneurship (ATE), Subjective Norms (SN), Perceived Behavioral Control (PBC), Perceived Job Crisis (PJC), and Entrepreneurial Intention (EI) constructs.

Table 2: Discriminant validity

	ATE	EI	PBC	PJC	SN
ATE					

EI	0.210			
PBC	0.231	0.912		
PJC	0.669	0.339	0.210	
SN	0.084	0.134	0.119	0.052

Source: authors

4.2 Structural Model Results

The structural model describes a significant part of the explanations for entrepreneurial intention. The adjusted R² value of 0.591 implies that about 0.591 percent of the variation in EI is jointly attributed to ATE, SN, PBC, and PJC, which is considered strong explanatory power in research on behavioral and entrepreneurship (Linan & Chen, 2009). The model's high predictive relevance is further supported by a Q² value of 0.596. Quality criteria of the measurement model of Q² are 0.596 (60%), and the adjusted R-squared is 0.591; F² value between the constructs are ATE → EI (0.014); PBC → EI (1.232); PJC → EI (0.091); SN → EI (0.007) (Hair et al., 2021).

Table 3: Path coefficients – Mean, STDEV, T-values, P-values

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Remark of Hypotheses
ATE → EI	-0.090	-0.089	0.045	1.988	0.047	Supported
PBC → EI	0.727	0.722	0.039	18.748	0.000	Supported
PJC → EI	0.226	0.224	0.039	5.808	0.000	Supported
SN → EI	0.056	0.053	0.037	1.528	0.127	Not supported

Source: authors

H1: Perceived job crisis and entrepreneurial intention - Job Crisis has a positive and significant effect on entrepreneurial intention ($\beta = 0.226$, $t = 5.808$, $p < 0.001$). This implies that the issue of job market uncertainty is a push factor because it encourages students at private universities to consider becoming entrepreneurs as an alternative career (Mia et al., 2022). The result is empirical evidence that supports necessity-inspired entrepreneurship in the economies characterized by labor constraints, such as Bangladesh (Hair et al., 2021).

H2: The attitude to entrepreneurship and entrepreneurial intention - The coefficient of Attitude towards Entrepreneurship is statistically significant and negative ($\beta = -0.090$, $t = 1.988$, $p < 0.05$). Even though the hypothesis is statistically confirmed, the negative value indicates a context-specific inversion: students might have a positive attitude towards entrepreneurship in principle, but poor economic situation, riskiness of financial activities, or fear of failure can undermine the conversion of the positive attitudes into a real entrepreneurial intention. This is contrary to the classical expectations of TPB, which highlights the value of contextual stressors in developing economies.

H3: Subjective norms and entrepreneurial intention - Entrepreneurial intention is not statistically significantly affected by Subjective Norms ($\beta = 0.056$, $t = 1.528$, $p = 0.127$) (Mia et al., 2023). This implies that family, peer, and social approval have a minimal influence on entrepreneurship intention among the students of private universities. It is possible that one of the reasons is that the rate of graduate unemployment normalizes entrepreneurship as a backup plan and lessens the social pressure in individual career choices.

H4: Perceived behavioral control and entrepreneurial intention - The strongest and significant influence on entrepreneurial intention is felt by Perceived Behavioral Control ($\beta = 0.727$, $t = 18.748$, $p < 0.001$). The high effect size ($f^2 = 1.232$) reveals that the student confidence in skills, knowledge, and the ability to start a business is the primary factor that defines entrepreneurial intention. This result is strong evidence in favor of the Theory of Planned Behavior and a reflection of the previous research that focused on self-efficacy as the most essential element of entrepreneurial decision making.

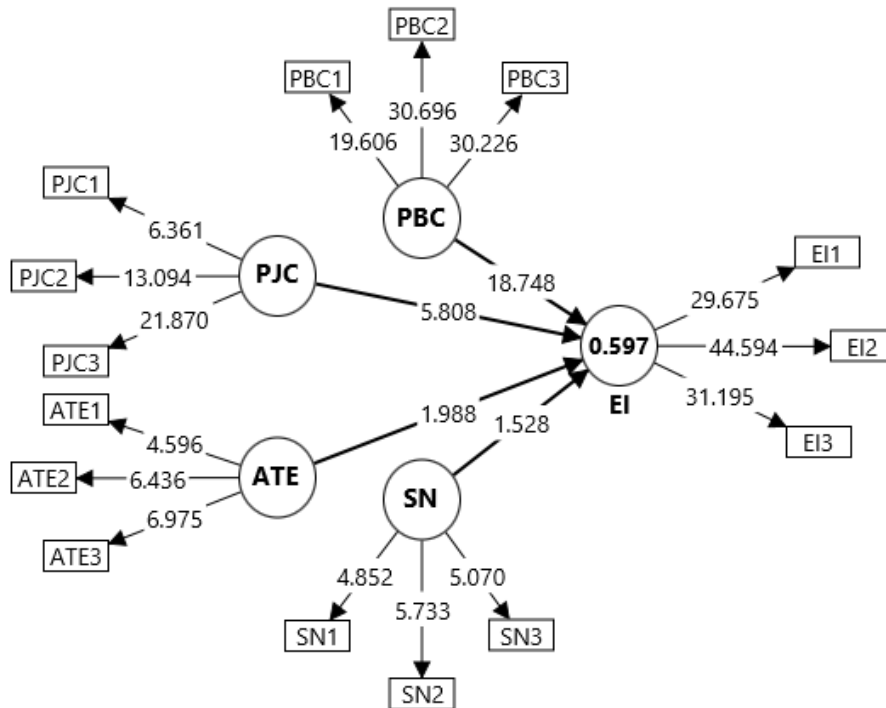


Figure 2: Path model

Source: authors

Taken together, the results substantiate the idea that perceived capability and labor market pressure contribute more to the rise in entrepreneurial intention among students at a private university in Bangladesh than social norms or even positive attitudes do. The high position of PBC and PJC indicates that entrepreneurship here is more necessity-driven than opportunity-driven, which confirms the behavioral-contextual extension of the Theory of Planned Behavior put forward in this study.

5. Discussion and Conclusion

This paper aimed at expanding the Theory of Planned Behavior (TPB) to include Perceived Job Crisis (PJC) as a situational factor of Entrepreneurial Intention (EI) among students of a private university in Bangladesh. The results of the empirical study are a good indication that the entrepreneurial intention in the labor-constrained economy is influenced not only by the cognitive determinants but also by the perceived structural pressures within the job market.

5.1 Preeminent role of perceived Behavioral Control

As it is in line with TPB and previous empirical studies, Perceived Behavioral Control (PBC) was found to be the strongest predictor of entrepreneurial intention. The high and sufficiently

large path coefficient suggests that the confidence of students in their entrepreneurial abilities, skills, and resources available to them is a decisive factor in determining entrepreneurial intention.

This conclusion supports the fact that in high uncertainty situations, entrepreneurial self-efficacy has higher power than attitudes or social approval. Within the Bangladeshi context, where formal employment is not easily accessible and institutional support for startups is not evenly distributed, students with such beliefs of being able to handle entrepreneurship have much higher intentions to do it. This is consistent with the previous research (Krueger et al., 2000; Liñan & Chen, 2009) and confirms that in necessity-related entrepreneurial opportunities, capability perception is more influential than desirability perception.

5.2 Perceived Job Crisis as a Push Factor

The results verify that the positive impact of Perceived Job Crisis on Entrepreneurial Intention is direct and positive, which contributes to the need-based entrepreneurship argument. Entrepreneurship begins to seem a rational but not a necessarily aspirational option to students whose imaginations of tighter job prospects and increased labor market insecurity are growing. This finding is especially significant for Bangladesh, where university graduates of the private sector are structurally disadvantaged in the job market. The above effect of PJC confirms the perception that entrepreneurship in developing economies is more likely to be a behavioral response to labor market failure than an opportunity exploitation. This empirical fact reinforces recent appeals to place TPB in the macroeconomic reality (Fayolle & Liñan, 2014; Davidsson & Thurik, 2022).

5.3 Unanticipated Adverse Impact of Attitude to Entrepreneurship

Oppositely to classical TPB expectation, the Attitude towards Entrepreneurship is significantly, but negatively related to entrepreneurial intention. Although statistically significant, this negative correlation indicates a situational paradox between positive views on entrepreneurship and the real intention formation. This observation suggests that students might experience no barriers between ideological encouragement of entrepreneurship and economic risk, financial constraints, fear of failure, and institutional protection, which might inhibit the intent-to-action conversion of positive attitudes. Entrepreneurship can be considered an attractive principle but a scary practice in labor markets characterized by crises. This finding corresponds to the fact that Nabi and Liñan (2013) argue that motivational processes can be suppressed even in the case of positive attitudes, due to the over-economic pressure.

5.4 Unimportance of Subjective Norms

The insignificance of the effect of the Subjective Norms indicates that social pressure by the family, peers, or society does not have a significant influence on entrepreneurial intention among the students of a private university. This can be an indication of the employment uncertainty being normalized and the traditional career expectations falling out of favor. Subjective norms are most likely to be influential in collectivist societies such as Bangladesh. But extensive graduate unemployment can have broken social resistance to entrepreneurship into more individualistic and necessity-driven career choices. This observation confirms

previous research that indicates loss of power of subjective norms in structural labor market stress situations.

5.5 Theoretical Implications

In general, the results support a behavioral-contextual adjustment of the TPB as the entrepreneurial intention in developing economies cannot be entirely attributed to the inner cognition, but also to the perceived limitations of the economic situation. Perceived job crisis adds to the explanatory power of TPB and fills an important gap in the body of literature on entrepreneurship intention, especially in South Asian settings.

5.6 Conclusion

The research investigated the entrepreneurial intention of students of a privately operated university in Bangladesh by updating the Theory of Planned Behavior by incorporating Perceived Job Crisis. The results with the help of PLS-SEM demonstrate that perceived behavioral control and job market pressure are the two most significant determinants of entrepreneurial intention that cannot be explained by the social norms or favorable attitudes alone.

The findings show that entrepreneurship in Bangladesh is a necessity because of the absence of jobs and the confidence of the graduates in their entrepreneurial potential. Though students can have good intentions of becoming entrepreneurs, such intentions do not always translate into action in the face of economic uncertainty. Further, the minor role of subjective norms is an indication of a change of focus towards a socially prescribed career path towards rational and self-directed decision-making.

5.6.1 Practical Implications

To policymakers, the results indicate the need to build entrepreneurial self-efficacy using startup finance and mentoring, incubation facilities, and streamlined regulatory regimes. In the case of private universities, it is necessary to incorporate experiential entrepreneurship learning, business simulations, and industry-related incubation programs in order to increase the perception of behavioral control.

On the national level, the policies in the sphere of entrepreneurship should not only encourage startups as a motto but also make sure that structural insecurities that force graduates into the self-employment sphere are addressed on the policy level and that entrepreneurship is sustainable, but not on the survival level.

5.6.2 Limitations and Future Research

There is a limit to what the study can achieve; despite its contributions, it is limited by being cross-sectional and focusing on students at a private university within a specific territory. Future studies can use a longitudinal design to investigate the evolution of perceived job crisis over time and to more directly examine mediating or moderating effects. Comparative research on the performance of public and private universities, or across nations, would also be beneficial to knowledge.

Informed Consent Statement: All subjects in the study were informed of their right to provide informed consent. Participation was voluntary, data were collected anonymously, and no personal data (identifying or sensitive) was recorded.

Conflicts of Interest: The authors declare no conflicts of interest.

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