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RESEARCH ARTICLE

Assessing Emotional Intelligence among Business Graduates in Bangladesh: Advancing Quality Education and Employability through the Lens of Sustainable Development Goals

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ABSTRACT

This study aims at identifying the level of emotional intelligence of Bangladeshi business graduates. This study used a quantitative cross-sectional research method to explore the factors concerning emotional intelligence of the business graduates in the Northern Region of Bangladesh. It uses a descriptive correlational approach to evaluate the level of EI and investigates the influence of demographic variables like gender difference, university type, and marital status of the graduates on the overall EI scores. Factor analysis using SPSS-26 and AMOS 24 was applied to compute the emotional intelligence measures. Additionally, hypothesis testing was conducted to evaluate the relationships between overall EI and the independent EI variables. Results show that the self-management domain of EI is significantly related to the overall EI of the business graduates of Northern Part of Bangladesh. The gender differernce and the university types also significantly influence the overall EI scores of the graduates in Bangladesh. The findings contribute to the existing knowledge of EI by adding value through the identification of the specific level of EI of the business graduates in Bangladesh. The findings also identified the specific domains which inspires the graduates to concentrate more on the lower-scored domains of emotional intelligence.

1. Background

There is a paramount importance of emotional intelligence for the business graduates in Bangladesh for jobs and developing entrepreneurial businesses. It is the determinant that helps in starting careers for the business graduates (Uddin, et. al., 2022). It is a recently developed knowledge that encourages the individuals to think and act rationally and purposefully to perceive their thoughts and the feelings of others before making career decisions (Mayer et al., 2001; Salovey and Mayer, n.d.). On the other hand, intelligence quotient (IQ), plays an important role in the realization of emotions, which leads them to gather skills regarding diligence, adaptability, influencing others, and self-confidence (Khan, 2019). Hence, ensuring quality in education at the tertiary level of education is essential to develop emotional intelligence among the business graduates is a must that also support Sustainable Development Goals (SDG 4) and the upgrad standard of living of any country (Boeren, 2019) The absence of a proper policy for quality education, the continuing outdated course curricula and improper actions taken against corruption and nepotism create barriers to achieve that excellence in quality learning for the suitable careers of the aspirants (Dacre Pool et al., 2019; Tucker et al., 2000). The core challenge many employers face today is the absence of soft skills concerning EI among the graduates (Mayur et al., 2013). For business graduates, prioritizing of emotional intelligence is crucial for a sustainable careers of the graduates (Tucker et al., 2000).

At the corporate lovel, a participative work environment emphasizes the quality of the employees, that depends on the skills that employees gather from their academic institutions where their universities consign considerable time and resources to enhance student's social and emotional intelligence for building personality traits meeting the needs for technology use at work (MacCann et al., 2020). Moreover, institutional politics, economic and social considerations, and national history influence the extent to which fiscal decentralization is practiced in a given cntext (Fan et. a., 2026). However, the core challenge that the business leaders face is the lack of individual skills and the quality alignments regarding the emerging technological advancements. This can be attributed by the EI from it the organizations benefit for implementing knowledge-based principles as a process rather than an outcome (Hess & Bacigalupo, 2010). Experience show that the men usually score higher in rationality than women at work, but in terms of depression men and women both score equal (Fischer, 1993).

Bangladesh, an uprising country in South Asia, is dubious regarding transforming its human resources into human capital. Most graduates especially business graduates of Bangladesh experience dilemma regarding their career selection after graduation. Many researchers have made discoveries so far related to the enhancement of employee productivity and ensuring a participative work environment. However, the context adheres to this ambivalent situation of the graduates, particularly the emotional intelligence level of the graduates for choosing an accurate career path, which is still largely undiscovered. Hence, the main objective of this study is to identify and measure emotional intelligence of the business graduates of Bangladesh. The specific objectives are as follows.

1. To measure the current level of Emotional Intelligence (EI) of the Business Graduates in Bangladesh.
2. To measure the impact of EI domains on the attitudes of the business graduates.
3. To identify the influence of gender differences, marital status and university type on the overall EI of the business graduates in Bangladesh.

2. Literature Review

2.1 Domains of Emotional Intelligence

Emotional Intelligence (EI) is the combination of the words emotion and intelligence with cognition (Salovey and Mayer, 1990), Emotion means organized thought regarding personal context, while intelligence means rational, purposeful, and effective in any environment. Emotional Intelligence (EI) is the way of understanding one's own emotions, demands, personal abilities, social challenges, and perception of others' issues (Di Fabio, 2012). Emotional Intelligence (EI) has gained recognition as a known factor that predicts professional and personal achievements because it affects educational success along with work quality and social bond development (Abraham, 1999; Mayer et al., 2012; Salovey and Mayer, n.d.; Van Lill, 2005). Emotional intelligence abilities contribute to achieving personal life goals, hence fostering effective leadership in work environments (Abraham, 2006). Another study revealed that EI is strongly associated with personality traits i.e. extraversion and emotional stability (Van Der Zee et al., 2002). Emotional Intelligence (EI) is positively correlated with Student's employability and achievement orientation, where the student's self-efficacy does not play any mediating effect (Li et al., 2024). Graduates showing attitudes and emotional intelligence competencies create opportunities for them to build specific skills for the right career path selection (Jameson et al., 2016). There is a direct relationship found between emotional intelligence and entrepreneurial career intention, where regulation of emotion is positive and exercising of emotions is negatively related to the entrepreneurial intention of the graduates (Kanonuhwa et al., 2018).

Emotional *self-awareness* is the specific domain of EI (Goleman, 1999a) that impact significantly on personal and psychological well-being (Gitonga et al., 2024) of individuals which plays a substantial role in emotional self-awareness (Mayur et al., 2013), self-perception (English, 2021), accurate self-assessment and self-confidence (AP et al., 2020). By helping one better grasp the complexities of a physical and socially crucial circumstance, emotional self-awareness also helps one better regulate their own emotions (Lane and Smith, 2021). In terms of managing educational challenges, emotional self-awareness encourages the effectiveness of educational leadership, self-confidence, and assertiveness (Pretorius and Plaatjies, 2023). There is evidence that the self-awareness level of any individual is positively connected with communication skills, intercultural aspects, and the learning capabilities of students (Abraham, 2006; Andrews and Higson, 2008; Riemer, 2003). At the same time, educational institutions deject emotional adaptability, which reduces the awareness level of emotional labor and cognition, which is required for graduates regarding clinical decision-making (Kozlowski et al., 2017). On the other hand, self-reported EI fosters a positive relationship with job satisfaction, organizational commitment, and turnover intentions (Miao et al., 2017). Though gender differences in emotion recognition showed moderate differences between men and women in self-reported EI men perceived stronger perceived EI than women (Fischer et al., 2018). Self-awareness has a strong relationship to emotion and self-discrepancies, so a low level of Self-awareness creates weak self-discrepancies, that create non-significant relation to emotion (Phillips and Silvia, 2005).

Individual's *self- management* behavior (Schinckus et al., 2018) is positively influenced by EI and it is one of the fundamental pillars of EI (Bratton et al., 2011) plays major rules in self regulation (Lazarus and Philosophical Studies, with support from the National University of Ireland, 1973) stress management (Aderibigbe and Mjoli, 2018) emotional resilience (Dacre Pool et al., 2019; Schutte et al., 1998) and impulse control (Gross, 2002; Kang, 2015). another dicovaries is self

management dimension of EI is positively related to the academic administration of public university (Ikpesu, 2017). Also in any organizations managers need to be master about emotional perspective of internal and external issues to achieve stability, productivity, sustainability and also excellence (Ugoani, 2019) as well as be focused on emotional intelligence in times of their employees selection, training, and appraisal system (Paik et al., 2019) and providing regular feedback to their appraisal results (Hossain and Islam, 2023). In leadership and teamwork, individuals with high emotional intelligence actively engage in cognitive and decision-making processes to foster a participatory work environment. (George, 2000). Individual with higher self management skills are tend to be more proactive in terms of undrstanding the emotions of others and also the resolution of all types of conflict (Salma Abdullah, 2019). Enhanced self-management abilities empower graduates to excel in leadership roles, since these skills foster resilience in stress management (Schinckus et al., 2018) and facilitate comprehension of unforeseen challenges within the firm. A substantial correlation was identified between the transformational leadership styles of managers within organizations and emotional intelligence, wherein biological variations resulted in more variability in emotional intelligence scores, with no discernible differences in transformational leadership (Mandell and Pherwani, n.d.).

The *social awareness* domain of EI (Goleman, 1999a) encompasses the ability to empathize with and understand the emotions of others, a crucial aspect in the development of technology that prioritizes user needs. This particular domain of EI is crucial for cultivating good interpersonal connections and overall socio-emotional competence, since it necessitates the accurate interpretation of social indications and the understanding of others' feelings (Butvilas and Kovaitė, 2022) as it containts factors like empathy (Ciarrochi et al., 2000), service orientation (Clark et al., 2003; Goleman, 1999b), and developing others (Goleman, 1999a). Individuals with social awareness comprehend the emotions, wants, and concerns of others while cultivating the capacity to connect with others' experiences and underlying sentiments (Gross, 2002). The elevated social awareness scored individual tend to be more proactive in executing leadership responsibilities by comprehending personal and social signs across their work setting (Joseph and Newman, 2010). During periods of social judgment, those with heightened empathy may mitigate the influence of prejudice on their emotions (Ciarrochi et. al., 2000).

This branch of emotional intelligence, especially in the *relationship management domain*, entails an individual’s understanding and control of his/her emotions as well as understanding and effective response to the feelings of other people, thereby promoting good and positive relations (Li et al., 2024). This is an important aspect in the field of management because it enhances inter personal relationships and team work. Strong relationship management skills on the part of the leaders may ensure skillful navigation of complex social situations involving such aspects as their respect promotions, empathy, and connectivity, consequently bettering social-emotional well-being, and organizational longevity (Di Fabio and Saklofske, 2019). Individuals who possess increased relation management capabilities are characterized by improved effectiveness in decision-making, communication, conflict management and leadership thus leading to effective and productive teams within organizational atmosphere. (Rodrigues and Matos, 2024). There is a robust positive relationship between emotional intelligence (and particularly in the relationship management), and the academic success of the graduates (Suleman et al., 2019).

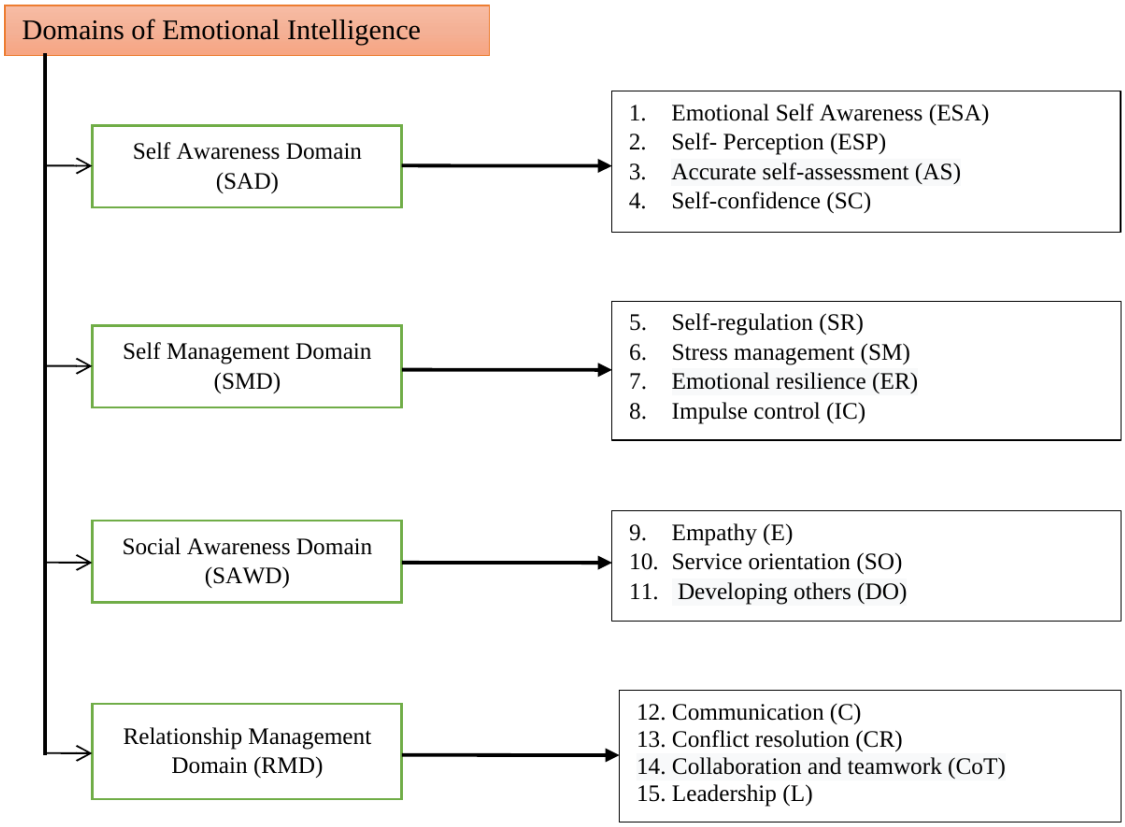


Figure 1 Emotional Intelligence Issues in Paradigm Building (Goleman, 2001).

2.2 Emotional Intelligence of Business Graduates in Bangladesh

Business graduates are expected to possess both technical competencies and soft skills. Emotional intelligence has been linked to critical business functions such as leadership, conflict resolution, team collaboration, decision-making, and adaptability (Mayer et. al., 2008). Business schools across the globe are increasingly embedding EI-related curricula to enhance graduates' employability. Several studies across South Asia have highlighted the role of EI in academic and workplace performance. For instance, studies in India and Pakistan found strong correlations between EI and leadership potential, stress management, and academic success (Kaur, 2018; Ahmed, et. al.,2019). However, socio-cultural influences such as hierarchical structures, collectivist values, and educational limitations affect the development and expression of EI.

Most studies in Bangladesh are cross-sectional and do not track EI development over time. Research is often limited to elite private universities in urban areas, not capturing the full socio-economic spectrum. There is little research on the impact of EI training or curriculum design on student development. Few studies incorporate insights from industry stakeholders regarding EI expectations from graduates.

Studies also underscore the importance of EI in enhancing employability and workplace adaptability among Bangladeshi graduates. For example, Rahman et al. (2019) found a positive correlation between emotional intelligence and job readiness among business students in Dhaka, indicating that students with higher EI were better equipped to handle professional challenges. Moreover, Chowdhury and Amin (2021) observed that emotional intelligence significantly impacts leadership potential and team performance in Bangladeshi corporate settings, suggesting that graduates with strong EI are more likely to succeed in managerial roles.

Despite its importance, the development of EI is often overlooked in business curricula. Hasan and Rahman (2020) note that the traditional education system in Bangladesh primarily emphasizes academic achievement over soft skills like emotional regulation, empathy, and social awareness. This gap in education is also reflected in employer feedback, with many expressing concern over graduates' limited interpersonal and emotional coping abilities (Uddin & Hossain, 2018). Some studies (Rahman & Sultana, 2021) suggest a positive relationship between EI and academic success among undergraduate business students.

Employers in Bangladesh increasingly emphasize soft skills, including emotional maturity, during recruitment. However, there is a perceived gap between graduate competencies and market expectations (Hasan et. al., 2020). The traditional education system in Bangladesh often emphasizes rote learning over socio-emotional development. This impedes the natural growth of EI among students (Chowdhury, 2019).

A few studies have observed gender-based differences in EI, with female students often scoring higher in empathy and interpersonal skills, while male students tend to exhibit higher self-confidence (Islam & Jahan, 2022). There is growing interest in incorporating EI training into business education programs. For instance, Ahmed and Jahan (2022) recommend integrating emotional intelligence modules into business school curricula to better prepare graduates for real-world challenges. They argue that such integration can enhance teamwork, conflict resolution, and ethical decision-making skills - essential attributes in today's dynamic business environment.

3. Conceptual Framework

A conceptual framework of EI of business graduates in Bangladesh has been developed based on literature review in this study (Figure 2). It shows that there are four main domains of EI such as, self awareness, self management, social awareness and relationship management. Here all the domains have impact on the business graduates' attributes in Bangladesh.

Figure 2 Conceptual Framework for Evaluating EI of the Business Graduates in Bangladesh

4. Hypotheses

Hypothesis 1: The current level of Emotional Intelligence (EI) among the business graduates in Northern Part of Bangladesh is moderate to high.

Hypothesis 2: The self-management domain of Emotional Intelligence (EI) has the greatest impact on the attitude of the business graduates in the Northern Part of Bangladesh.

Hypothesis 3: Gender differences, marital status, and university type significantly influence the overall Emotional Intelligence (EI) of the business graduates in Northern Part of Bangladesh.

5. Research Methods

This study employs both qualititative and quantitative methods of research. A quantitative cross-sectional research was design to explore the Emotional Intelligence (EI) of the business graduates in the Northern Region of Bangladesh. The study uses a descriptive correlational approach to assess the level of EI and investigates the influence of demographic variables namely gender differences, university type, and marital status, on overall EI of the graduates. Factor analysis was used to identify the important factors that ensured the construct validity of the EI measures. Hypothesis testing was conducted to evaluate the relationships between EI and the independent EI variables.

5.1 Sample Design

The study included 469 business graduates from various universities located in the Northern Region of Bangladesh, which includes Rajshahi, Bogura, Naogaon, Pabna, and Sirajganj districts. Sample size was determined by using statistical formula n = N/(1+N(e)2 suggested by Yamane (1967). The inclusion criteria for the participants are mentioned below.

i. Business graduates who have completed their undergraduate or graduate studies in business-related fields such as, Management, Finance, Marketing, and Accounting.
ii. Graduates who have completed their degrees within the last two years.
iii. Stratified random sampling was used to ensure adequate representation of business graduates from public and private universities and across various demographic backgrounds. Stratification was based on gender, university type (public vs. private vs institute), and marital status (married vs. single), ensuring that the sample reflected the diverse composition of the population in the study area.

5.2 Instruments and Measurement

The Emotional Intelligence Scale (EIS) was used in this study that was adopted from established models based on Goleman's framework of EI. The scale consists of four main domains such as, Self-awareness, Self management, Social Awareness and Relationship Management domains.

Each domain was measured using a Likert-type scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), with higher scores indicating higher levels of EI in that domain. The total EI score was computed as the sum of the scores across the four domains. The total score was categorized as follows:

i. Low EI: 1-98.08
ii. Moderate EI: 98.09-146.98
iii. High EI: 146.99 and above

A demographic section of the questionnaire captured the key information about the participants, including Gender (Male/Female) differences, University Type (Public/Private/Institute) and Marital Status (Married/Single) of the respondents.

5.3 Reliability and Validity

Reliability is the measure of internal consistency of the construct in the study. A construct is reliable if the Alpha (α) value is greater than 0.70 (Hair et al., 2013). Construct reliability was assessed using Cronbach's Alpha. The results reveal that the Self Awareness Domain with twelve items (α = .899), the Self-Management Domain scale with twelve items (α = .905), and the Social Awareness Domain scale with nine items (α = .905). Similarly, the Relationship Management Domain scale with twelve items was also found reliable (α = .885). Reliability results are summarized in Table 1.

Table 1
Results of Reliability Tests

Construct	No. of Items	Alpha (α)
Self-Awareness Domain	12	.899
Self-Management Domain	12	.905
Social Awareness Domain	9	.905
Relationship Management Domain	12	.885

5.4 Data Collection Procedures

Data were collected in two phases like online and offline. The online survey was distributed through Google Forms, and participants were invited through university mailing lists and social media platforms. For those without internet access, offline paper questionnaires were distributed in selected universities, and responses were later digitized for analysis. The data collection process was conducted over a period of four weeks. During this period, follow-up reminders were sent to non-respondents, and a full explanation of the study's objectives was provided to ensure informed consent.

5.5 Data Analysis Techniques

The data were analyzed using AMOS 24 and SPSS 26. The following steps were undertaken:

i. *Factor Analysis:* Confirmatory Factor Analysis (CFA) was performed in AMOS 24 to verify the structure of the Emotional Intelligence Scale and to confirm that the four domains of EI (Self-awareness, Self-regulation, Social Awareness, Social Skills) are distinct factors.
ii. *Descriptive Statistics:* Means, standard deviations, frequencies, and percentages were computed for demographic variables and overall EI scores. The data were categorized into low, moderate, and high EI levels based on the total EI score.

5.6 Hypothesis Testing

One-Way Analysis of Variance (ANOVA) and Independent T-tests were conducted using SPSS 26 to test the hypotheses. The study also adhered to the ethical guidelines established by the Institutional Review Board (IRB). Key ethical considerations included:

i. *Informed consent:* All participants were informed about the study's purpose, their right to confidentiality, and the voluntary nature of participation.
ii. *Confidentiality:* All personal data were kept confidential, and the responses were anonymized during data processing and analysis.
iii. *Voluntary Participation:* Participants were assured that they could withdraw from the study at any time without any negative consequences.

5.7 Limitations of the Study

The study only used a cross-sectional design, which limits the ability to infer causal relationships between gender, university type, marital status, and EI scores. The study also relies on self-reported data, which may introduce biases such as, social desirability bias or self-reporting inaccuracies. The geographic focus on the Northern Region of Bangladesh may also limit the generalizability of the findings to other Regions of Bangladesh.

6. Analysis and Interpretations

6.1 Descriptive Statistics

A total of 469 responses of the business graduates were used in this study. The range for all variables was from 1.0 to 5.0, indicating a Likert-scale format. The mean values for most variables ranged from 3.2 to 3.8, suggesting a generally neutral to moderately positive response from the participants (Appendix 1). The standard deviations varied from 0.79 to 1.38, reflecting moderate variability in the responses. Variables such as, SO1 had lower variability (SD = 0.79), while others like C1 (SD = 1.38), showed greater dispersion. Skewness values were negative (ranging from 0.92 to -0.42), indicating a slight leftward skew, meaning respondents tended to rate items more positively.

The kurtosis values ranged from -0.52 to 0.19, indicating that the distributions were mostly platykurtic (flatter than normal), with few extreme outliers.

The results, as a whole, show a tendency toward positive responses, with some variability, suggesting a mixed but generally favorable attitude toward the measured constructs.

According to (Kaiser, 1974) for performing factor analysis KMO value greater than 0.90 is considered excellent. Here, Table 2 shows that KMO measure is 0.957, suggesting that the sample size and inter-item correlations of the variables are highly appropriate for the factor analysis.

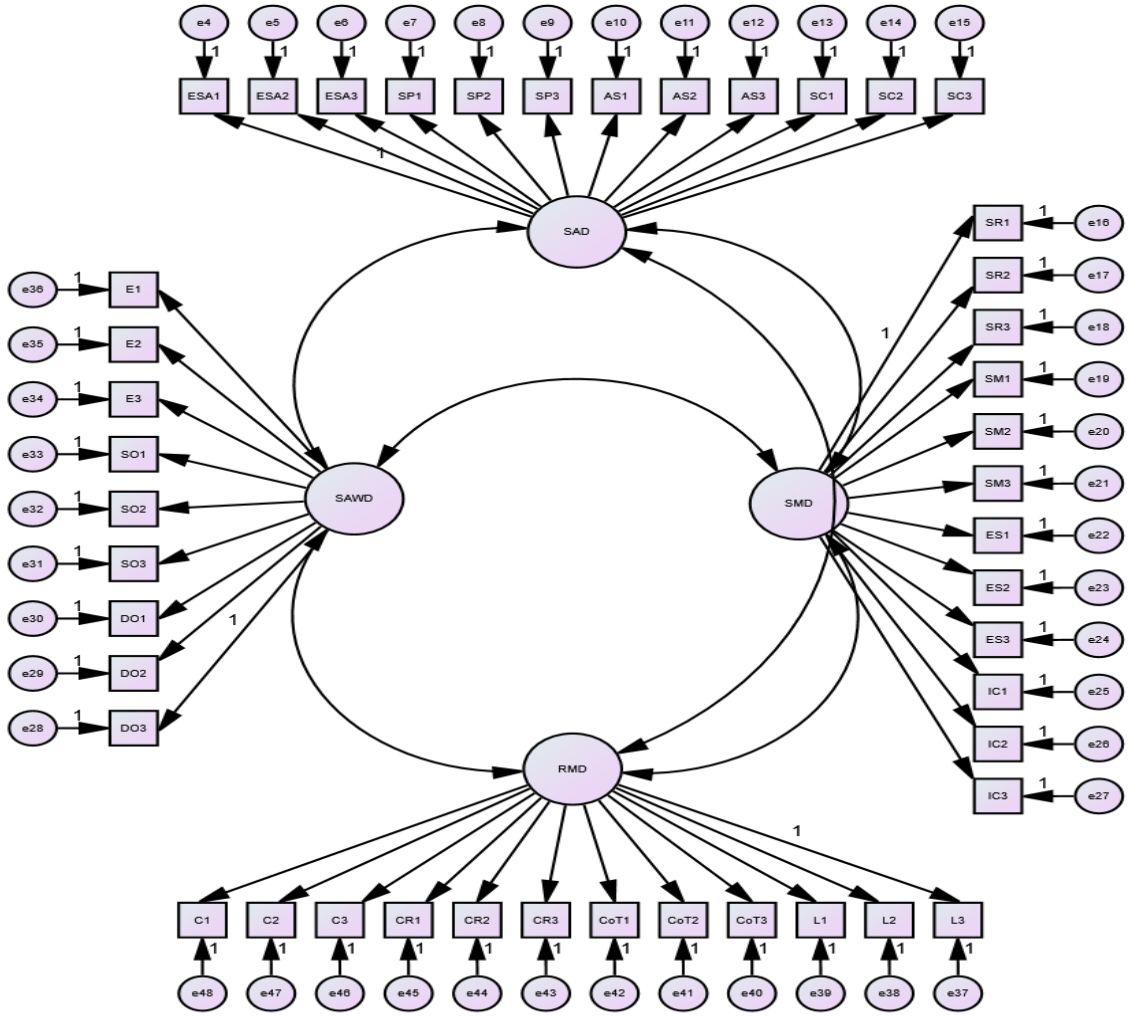
Table 2 KMO and Bartlett's Test Results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.957
Bartlett's Test of Sphericity	Approx. Chi-Square	13118.654
	df	990
	Sig.	.000

6.2 Confirmatory Factor Analysis (CFA)

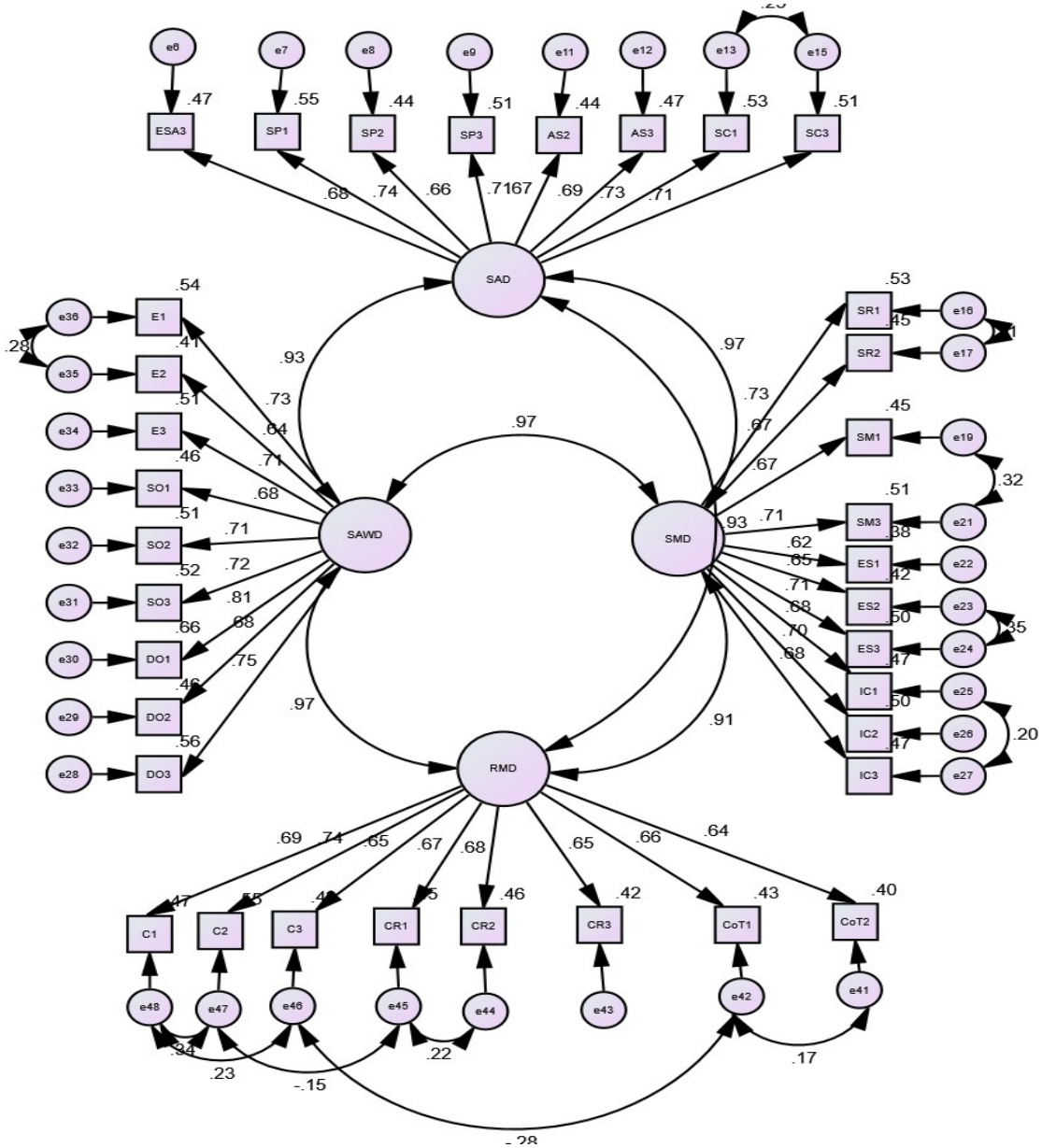
The AMOS Version 24 was used to perform the Confirmatory Factor Analysis (CFA). The Model shows the reliability of the questionnaire (Figure 3).

Figure 3 Results of Confirmatory Factor Analysis (CFA)



Due to low factor loading of ESA1, ESA2, AS1, SC2, SR3, SM2, CoT3, L1, L2, and L3 where Standardized Regression Weights is <.60, has been removed from the model. The Updated model has been shown in Figure 4.

Figure 4 SEM Updated Model



Following is the graphical representation of CFA initial model and the final calculated model followed by results (Table 3).

Table 3
Standardized Regression Weights

Relationship			Estimate
SP1	<---	SAD	.741
SP2	<---	SAD	.661
SP3	<---	SAD	.715
AS2	<---	SAD	.666
AS3	<---	SAD	.689
SM1	<---	SMD	.673
SM3	<---	SMD	.714
ES1	<---	SMD	.620
DO1	<---	SAWD	.814
SO3	<---	SAWD	.720
SO2	<---	SAWD	.715
SO1	<---	SAWD	.679
E3	<---	SAWD	.712
E2	<---	SAWD	.644
CoT2	<---	RMD	.635
CR3	<---	RMD	.648
CR2	<---	RMD	.680
E1	<---	SAWD	.734
DO3	<---	SAWD	.752
DO2	<---	SAWD	.679
C1	<---	RMD	.685
C2	<---	RMD	.740
C3	<---	RMD	.647
CR1	<---	RMD	.668
SC3	<---	SAD	.712
SC1	<---	SAD	.727
SR1	<---	SMD	.730
SR2	<---	SMD	.669
IC1	<---	SMD	.684
ESA3	<---	SAD	.684
IC3	<---	SMD	.684
ES2	<---	SMD	.645
ES3	<---	SMD	.708
IC2	<---	SMD	.704
CoT1	<---	RMD	.658

CMIN stands for the Chi-square minimum value. It's a measure of how well the proposed model fits the observed data. A low CMIN value (ideally non-significant) indicates a good fit, meaning the model's hypothesized relationships between variables align well with the data. CMIN/DF (Chi-Square/df Ratio) should be within the range of 1 to 3 (Hu and Bentler, 1999; Zibran, 2007). This study shows the value of CMIN/DF is 2.869 < 3.0, which considered as excellent that reflects that the degree of freedom is accurate, represents a good model fit (Table 6).

Table 6
CMIN Results

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	123	1554.773	542	.000	2.869
Saturated model	665	.000	0		
Independence model	70	10800.272	595	.000	18.152

CFI compares the fit of the proposed model to the fit of a baseline (or null) model. The value of CFI ≥ 0.90 indicates acceptable fit and CFI ≥ 0.95 represent good model fit (Hu and Bentler, 1999), as this model shows the CFI value is 0.901, that means the model provides acceptable fit regarding the observed data (Table 7).

Table 7
Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.856	.842	.901	.891	.901
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-adjusted measures are fit indices in statistical modeling that are modified to account for the number of parameters (or degrees of freedom) in a model. They penalize models that are less parsimonious (simpler) and favor those that are more parsimonious, aiming to balance goodness of fit with model complexity. Parsimony Comparative Fit Index (PCFI) helps assess how well a model fits the data while also considering the complexity of the model. The PCFI value 0.821 shows that this model fits with the data (Table 8).

Table 8
Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.911	.780	.821
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Noncentrality Parameter (NCP) is a way to distinguish noncentral distributions, which have nonzero means. The 1012.773 shows that the means is non zero (Table 9).

Table 9
Noncentrality Parameter (NCP)

Model	NCP	LO 90	HI 90
Default model	1012.773	898.673	1134.485
Saturated model	.000	.000	.000
Independence model	10205.272	9871.341	10545.602

FMIN is a measure of how well a model fits the data. A lower FMIN value indicates a better fit, with zero representing a perfect fit. The results show that FMIN is 3.322 which is just fit (Table 10).

Table 10
Minimum Fit Function (FMIN)

Model	FMIN	F0	LO 90	HI 90
Default model	3.322	2.164	1.920	2.424
Saturated model	.000	.000	.000	.000
Independence model	23.078	21.806	21.093	22.533

Root Mean Square Error of Approximation (RMSEA) is a goo goodness-of-fit index used to assess how well a model fits the observed data. RMSEA with lower value indicates bettwe fit. The results of this analysis show that RMSEA is 0.063 which is very low means better model fit (Table 11).

Table 11
Root Mean Square Error of Approximation (RMSEA)

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.063	.060	.067	.000
Independence model	.191	.188	.195	.000

Expected Cross Valuation Index (ECVI) of this study shows that it is 3.848 which is at the lower level means better model fit (Table 12).

Table 12
Expected Cross Valuation Index (ECVI)

Model	ECVI	LO 90	HI 90	MECVI
Default model	3.848	3.604	4.108	3.892
Saturated model	2.842	2.842	2.842	3.079
Independence model	23.377	22.663	24.104	23.402

6.3 Overall Model Summery

SRMR (Standardized Root Mean Square Residual): The threshold value of SRMR should be less than 0.08 (Hu and Bentler, 1999), here the model shows the SRMR value is 0.40 which reflects an excellent, which indicates lower residual discrepancies between the observed and predicted value.

RMSEA (Root Mean Square Error of Approximation): The fit is deemed good with an RMSEA of 0.063 as it is considerably greater than the required cut-off of 0.06 (Hu and Bentler, 1999) (Table 13).

Table 13
Overall Model Summary

Measure	Estimate	Threshold
CMIN	1554.773	--
DF	542.000	--
CMIN/DF	2.869	Between 1 and 3
CFI	0.901	>0.95
SRMR	0.040	<0.08
RMSEA	0.063	<0.06

6.4 Hypothesis Testing

The business graduates of Northern Part of Bangladesh reported their Emotional Intelligence (EI) levels according to the data presented in Table 14**.** The provided statistics help evaluate both the primary distribution attributes and the variability and shape of emotional intelligence levels. The graduates assessed their emotional intelligence at 1.9595 on the scale which indicates their scores rest just below the center point. The respondents demonstrate an average EI level because most participants scored within this range. The graduates' EI levels show moderate variability according to the standard deviation of 0.51105 because their responses cluster around the mean without substantial dispersion. The data dispersion stands validated by the variance of 0.261 which equals the square of the standard deviation. The lowest rating is 1.00; the maximum score is 3.00 means the replies span the whole range from 1 to 3 without severe outlier numbers.

Table 14
Levels of Emotional Intelligence (EI)

N (Valid)	469
Mean	1.9595
Std. Deviation	0.51105
Variance	0.261
Skewness	-0.066
Std. Error of Skewness	0.113
Kurtosis	0.824
Std. Error of Kurtosis	0.225
Range	2.00
Minimum	1.00
Maximum	3.00

Data points have essentially symmetrical distribution, the modest right-skewed (higher

EI score) pattern of the skewness value-0.066. Most graduates assigned high ratings to EI while the overall impact of this tendency remains small based on a minor negative skew. The measure of kurtosis evaluates at 0.824 showing a positive value that demonstrates a distribution that is more peaked than an ordinary distribution. The study findings indicate that most business graduates (73.8%) fall under the moderate level of EI group based on their scores from 98.09 to 146.98. The smaller group of (15.1%) demonstrates poor EI capabilities while scores between 98.08 mark their results. Strong emotional intelligence exists only in a minority group comprising (11.1%) of the participants since their scores exceeded 146.99 (Table 15).

The study shows that the Emotional Intelligence level of the business graduates in the Northern Parts of Bangladesh rest in the moderate-to-high level based on the results from the analysis. The results support Hypothesis 1 because most business graduates show emotional intelligence at a modest level to high level.

Table 15
Level of Emotional Intelligence (EI)

Levels	Frequency	Percent	Valid Percent	Cumulative Percent
Up to 98.08	71	15.1	15.1	15.1%
98.09 - 146.98	346	73.8	73.8	88.9%
146.99 and Over	52	11.1	11.1	100.0%
Total	469	100.0	100.0	

The results show that among other domains, self-management domain (0.443) of Emotional Intelligence (EI) has the greatest impact on the attitudes of the business graduates in the Northern Part of Bangladesh followed by self-awareness (0.250), relationship management (0.201) and social awareness (0.149) (Table 16). The reason could be attributed by the family pressure and inner drive of the graduates to be established.

Table 16
Relative Importance of the EI Domains among the Business Graduates

Standardized Regression Weights:			**Estimate**
Graduate_Attitudes	<----	Self_Awareness_Domain	.250
Graduate_Attitudes	<----	Self_Management_Domain	.443*
Graduate_Attitudes	<----	Social_Awareness_Domain	.149
Graduate_Attitudes	<----	Relationship_Management_Domain	.201

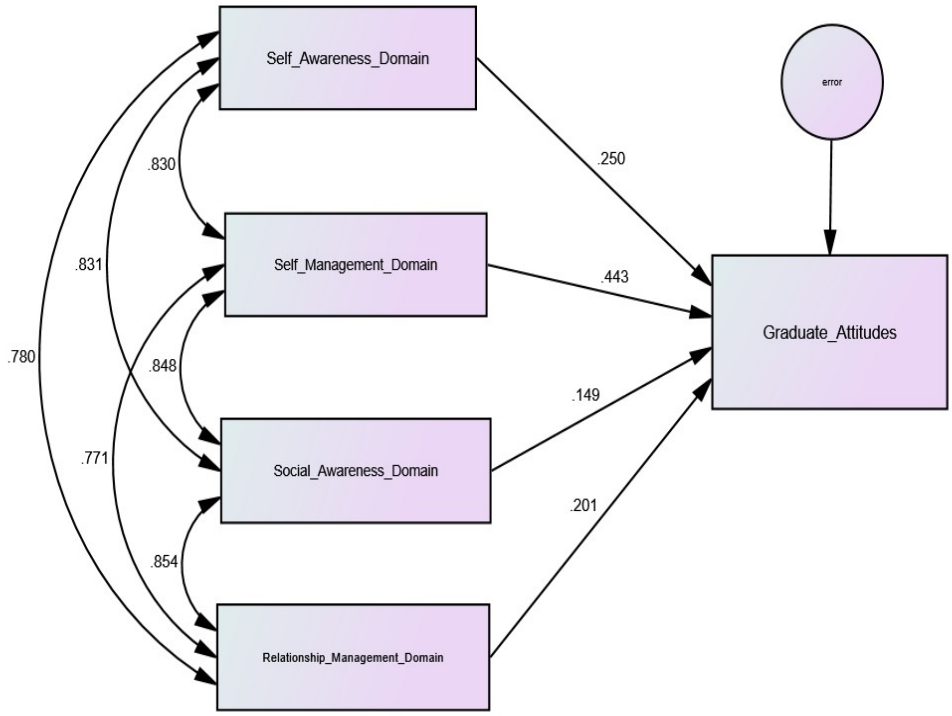


Figure 5 SEM Model for EI of Business Graduates in Bangladesh

The self-management domain affects business graduate views in the Northern Part of Bangladesh to the highest degree because frequently faced with economic challenges, and only examination-centered curriculum coupled with heavy home-related tasks, strong psychological control and flexible adjustment. For instance, a massive deficit of working possibilities and lack of finances

support efficient stress management and long-term arrangement, however, culturally established values such as persistence and suppression of feelings enhance the sense of impulse control, which make the highest impact on individual views within academic and professional environments according to the regression weights exhibited (Figure 5).

6.5 The Results of Regression Analysis

The regression analysis helps establish which domains of emotional intelligence influence of the business graduates' attitudes' to what degree. Study shows that the graduates' attitudes are influenced, primarily, by their self-management skills based on a standardized regression weight analysis. The Std Beta of Self-Management Domain is (β) = 0.443 (significant) followed by Self-Awareness Domain (β) = 0.250, Relationship Management Domain (β) = 0.201 and Social Awareness Domain (β) = 0.149 (Table 16). The analysis demonstrates that the Self-Management EI Domain reveals the strongest relationship (β = 0.443) between its influence on business graduates' attitudes compared to other EI domains. Analysis indicates self-management abilities lead to the most powerful impact on the graduates' attitude formation in the Northern Part of Bangladesh.

6.6 Comparative Analysis

The analysis demonstrates that Self-Management Domain reveals the strongest relationship (β = 0.443) with the business graduates' attitudes compared to other EI domains. Analysis also indicates self-management abilities lead to the most powerful impact on the business graduates' attitude formation in the Northern Part of Bangladesh. Self-Awareness Domain (Std Beta = 0.250) demonstrates a moderate positive influence, Social Awareness Domain (Std Beta = 0.149) exhibits a relatively weak positive influence and Relationship Management Domain (Std Beta = 0.201) has a moderate but lesser impact. The Self-Management Domain dominates in its influence on shaping the business graduates' attitudes because it exhibits stronger impact than the other domains. This results of this study supported hupothesis 2.

Gender differences, marital status, and university type significantly influence the overall Emotional Intelligence (EI) of the business graduates in Northern Part of Bangladesh. Gender differences (gender) and university types significantly influence the overall Emotional Intelligence (EI) of the business graduates in the Northern Part of Bangladesh (Table 17 & Table 18).

Table 17 Between-Subjects Factors

		Value Label	N
MarriageNumeric	1.00	Married	138
	2.00	Single	331
UniversityTypeNumeric	1.00	Public	83
	2.00	Private	378
	3.00	Institute	8
Gender_Numeric	1.00	Male	283
	2.00	Female	186

F Test for Heteroskedasticity[a,b,c]

F	df1	df2	Sig.
7.469	1	467	.007

a. Dependent variable: Overall_EI

b. Tests the null hypothesis that the variance of the errors does not depend on the values of the independent variables.

c. Predicted values from design: Intercept + MarriageNumeric + UniversityTypeNumeric + Gender_Numeric + MarriageNumeric * UniversityTypeNumeric + MarriageNumeric * Gender_Numeric + UniversityTypeNumeric * Gender_Numeric + MarriageNumeric * UniversityTypeNumeric * Gender_Numeric

Table 18 Tests of Between-Subjects Effects

Dependent Variable: Overall_EI

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	20546.959[a]	9	2282.995	4.827	.000
Intercept	842698.154	1	842698.154	1781.578	.000
Marriage Numeric	4168.018	1	4168.018	8.812	.003
University Type Numeric	777.688	2	388.844	.822	.440
Gender_Numeric	7779.490	1	7779.490	16.447	.000
Marriage Numeric * UniversityTypeNumeric	6229.416	2	3114.708	6.585	.002
Marriage Numeric * Gender_Numeric	244.223	1	244.223	.516	.473
University Type Numeric * Gender_Numeric	6448.510	1	6448.510	13.633	.000
Marriage Numeric * University Type Numeric * Gender_Numeric	28.520	1	28.520	.060	.806

Table 17 Between-Subjects Factors

Error	217110.089	459	473.007
Total	6362979.276	469	
Corrected Total	237657.048	468	

a. R Squared = .086 (Adjusted R Squared = .069)

7. Interpretation of Results

7.1 Gender Effect

Results show that Gender significantly influences the overall Emotional Intelligence (EI) scores (F = 16.447, p = 0.000 < 0.001). The University type does not significantly affect the overall EI scores (F = 0.822, p = 0.440 > .001). Marriage status also does not positively affect the overall EI scores (F = 8.812, p = 0.003 > 0.001).

7.2 Interaction Effect: Martal Status and University Types

Marital status and university type shows statistical significance by the test results (F = 6.585 and p = 0.002) which determines that marriage's influence changes according to private versus public versus institution choice. Therefore, the impact of marital status upon emotional intelligence scores is moderated by university type parameters.

7.3 Interaction Effect: Martal Status and Gender Differences

Marital status together with Gender failed to produce a significant relationship towards EI scores based on the analysis (F = 0.516, p = 0.473). The scores of Emotional Intelligence do not show different patterns based on marriage status between males and females.

7.4 Interaction Effect: University Type and Gender Difference

The anlysis shows that university type together with gender differences creates a significant interaction effect on EI scores (F = 13.633, p = 0.000). Therefore, the impact of university type on emotional intelligence score depends differently on student gender groups.

7.5 Three-Way Interaction: Martal Status and University Type and Gender Difference

The influence of the three-way combination proved to be insignificant when evaluated using (F = 0.060 and p = 0.806). Tests for the existence of a significant influence between Marriage status and University type and Gender do not demonstrate any combined impact on EI scores. In summary, gender differences produces meaningful effects on overall EI of the business graduates of Bangladesh. However, university type fails to show any impact on such scores. The statistical models indicate that EI scores receive joint influence from both university type and the marital status or university type and gender difference although three factors together fail to demonstrate significant effects. Therefore, Hypothesis 3 is partially supported by this study.

8. Conclusions

The majority of research on emotional intelligence in Bangladesh has focused on the organizational viewpoint, including individual employability, staff productivity,

and managerial decision-making. This research examines the emotional intelligence levels of business graduates in Northern Part of Bangladesh. The findings of this research revealed that the Emotional Intelligence (EI) levels of business graduates in the Northern Regions of Bangladesh are moderate to high, suggesting that the graduates possess a significant degree of emotional intelligence. This research revealed that the Self-Management Domain of Emotional Intelligence has the most significant correlation with the attitudes of the business graduates indicating that self-management skills have the greatest influence on their attitudes in Bangladesh. This study also indicated that the gender disparity among business graduates significantly influences the total emotional intelligence level of the graduates in Bangladesh. Nevertheless, the kind of university did not have any effect on the EI values. The statistical models suggested that the EI scores were jointly influenced by the university type and married status, as well as by university type and gender differences, but the combination of these three variables did not exhibit significant impact on the overall EI of the graduates. This research enhances previous literatures by determining the particular degree of emotional intelligence among the business graduates in Bangladesh. It described the particular domain outcomes of the emotional intelligence that would motivate the graduates to focus more on the lower-scoring EI domains. This study also presents the emotional intelligence scores reflecting gender inequalities which will help academia in revising the curricula of the universities in Bangladesh.

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Appendix 1 Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
ESA1	469	1.0	5.0	3.399	1.0666	1.138	-.456	.113	-.320	.225
ESA2	469	1.0	5.0	3.443	1.1149	1.243	-.568	.113	-.234	.225
ESA3	469	1.0	5.0	3.565	1.0794	1.165	-.706	.113	.039	.225
SP1	469	1.0	5.0	3.535	.9835	.967	-.626	.113	.296	.225
SP2	469	1.0	5.0	3.603	1.0045	1.009	-.616	.113	.168	.225
SP3	469	1.0	5.0	3.595	.9417	.887	-.546	.113	.158	.225
AS1	469	1.0	5.0	3.373	1.0477	1.098	-.512	.113	-.242	.225
AS2	469	1.0	5.0	3.424	1.0049	1.010	-.559	.113	.063	.225
AS3	469	1.0	5.0	3.676	1.0406	1.083	-.852	.113	.325	.225
SC1	469	1.0	5.0	3.501	1.0694	1.144	-.692	.113	.032	.225
SC2	469	1.0	5.0	3.456	1.0785	1.163	-.543	.113	-.208	.225
SC3	469	1.0	5.0	3.623	1.1019	1.214	-.838	.113	.204	.225
SR1	469	1.0	5.0	3.475	1.0850	1.177	-.647	.113	.045	.225
SR2	469	1.0	5.0	3.452	1.1134	1.240	-.420	.113	-.516	.225
SR3	469	1.0	5.0	3.365	1.0768	1.160	-.508	.113	-.266	.225
SM1	469	1.0	5.0	3.373	1.0798	1.166	-.529	.113	-.311	.225
SM2	469	1.0	5.0	3.397	1.0151	1.030	-.486	.113	-.163	.225
SM3	469	1.0	5.0	3.458	1.0982	1.206	-.565	.113	-.297	.225
ES1	469	1.0	5.0	3.217	.9672	.936	-.319	.113	-.151	.225
ES2	469	1.0	5.0	3.249	.9847	.970	-.260	.113	-.351	.225
ES3	469	1.0	5.0	3.397	1.0003	1.001	-.768	.113	.295	.225
IC1	469	1.0	5.0	3.328	1.0226	1.046	-.559	.113	-.035	.225
IC2	469	1.0	5.0	3.495	.9621	.926	-.722	.113	.306	.225
IC3	469	1.0	5.0	3.478	.9619	.925	-.500	.113	.033	.225
E1	469	1.0	5.0	3.482	1.0389	1.079	-.641	.113	.173	.225
E2	469	1.0	5.0	3.535	1.0239	1.048	-.653	.113	.144	.225

Descriptive Statistics

E3	469	1.0	5.0	3.450	.9542	.910	-.605	.113	.252	.225
SO1	469	1.0	5.0	3.473	.8879	.788	-.416	.113	.224	.225
SO2	469	1.0	5.0	3.507	.9282	.862	-.416	.113	.074	.225
SO3	469	1.0	5.0	3.495	.9510	.904	-.651	.113	.465	.225
DO1	469	1.0	5.0	3.392	1.0780	1.162	-.665	.113	-.070	.225
DO2	469	1.0	5.0	3.488	.9396	.883	-.571	.113	.353	.225
DO3	469	1.0	5.0	3.542	1.1021	1.215	-.702	.113	-.094	.225
C1	469	1.0	5.0	3.499	1.1760	1.383	-.627	.113	-.349	.225
C2	469	1.0	5.0	3.614	1.0970	1.203	-.702	.113	.019	.225
C3	469	1.0	5.0	3.495	1.0813	1.169	-.653	.113	-.031	.225
CR1	469	1.0	5.0	3.390	1.0777	1.162	-.383	.113	-.382	.225
CR2	469	1.0	5.0	3.488	1.0076	1.015	-.666	.113	.098	.225
CR3	469	1.0	5.0	3.537	1.1100	1.232	-.528	.113	-.315	.225
CoT1	469	1.0	5.0	3.433	1.1723	1.374	-.541	.113	-.435	.225
CoT2	469	1.0	5.0	3.539	1.1880	1.411	-.639	.113	-.414	.225
CoT3	469	1.0	5.0	3.497	1.0990	1.208	-.564	.113	-.253	.225
L1	469	1.0	5.0	3.388	1.1707	1.370	-.415	.113	-.568	.225
L2	469	1.0	5.0	3.586	1.1302	1.277	-.599	.113	-.334	.225
L3	469	1.0	5.0	3.759	1.1471	1.316	-.918	.113	.187	.225
Valid N (listwise)	469									