

EXAMINING THE INFLUENCE OF EMOTIONAL INTELLIGENCE ON DECISION-MAKING AMONG STUDENTS: THE MEDIATING EFFECT OF BRAND LOYALTY

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Abstract

Purpose - This study investigates the intricate dynamics between elements of emotional intelligence (EEI)—self-awareness (SA), self-regulation (SR), motivation (M), empathy (E), and social skills (SS)—and their impact on Brand Loyalty (BL) and Decision-Making (DM) among university students. It aims to elucidate how these facets of EEI shape students' BL and influence their DM.

Design/methodology/approach - Employing a quantitative research design wherein data were collected through a survey administered to (n = 389) students at Karabük University, and the hypotheses were tested using the SPSS ver.26, alongside the Process macro ver. 4.2, developed by Andrew F. Hayes, facilitates the examination of the data.

Findings -The results reveal that M, E, and SS significantly enhance BL, indicating the crucial role these EEIs play in fostering a loyal student base. Contrarily, SA and SR showed a less significant direct impact on BL. Furthermore, BL was found to mediate the relationship between all five EEI and DM, underscoring the pivotal role of EEI in students' DM.

Research limitations/implications - The study's primary limitation is its focus on a university student population, which may restrict the generalizability of the findings. Future research should extend to diverse demographic groups and incorporate longitudinal designs to affirm causality and elucidate EEI, BL, and DM dynamics.

Originality/value - This research contributes to the emergent discourse on the intersection of emotional intelligence and student behavior, particularly in the context of BL and DM. It offers novel insights into the mediated role of BL within the EEI and DM nexus, providing valuable implications for brand managers and marketers in developing strategies that resonate with the emotional and psychological dimensions of student or consumer behavior.

Keywords Elements of Emotional Intelligence, Brand Loyalty, Decision-Making, University

Students.

Paper type Research paper

Introduction

In the present era, commonly called 'an age of uncertainty,' there is a significant need for improved emotional Intelligence (EI) (Zaki, Abd-Elrhman & Ghoneimy, 2018). The definition of EI is a topic of discussion and has varying interpretations across different academic fields. According to Daniel Goleman (2020), EI is twice as important as intelligence quotient (IQ) in ensuring human survival. EI includes abilities like self-control, excitability, and perseverance. Unlike IQ, which is mainly innate, EI allows people to achieve their goals free from the constraints of cognitive intelligence. Despite its increasing recognition, the construct of emotional intelligence remains unclear, according to Davies et al. (1998). Cabanas et al. (2022) further highlight the challenges of measuring EI, with some scholars suggesting that it may be more mythological than scientific.

In contrast, EEI is the ability to accurately identify, understand, evaluate, and manage one's and others' emotions, thus facilitating informed DM and practical action to achieve specific goals or objectives. EEI is an integrated set of skills, competencies, and abilities essential to the professional development of individuals who make decisions in stressful and challenging contexts. EEI is essential for managing life's complexities, enabling individuals to manage emotional reactions, show empathy, share feelings, and enhance communication and DM (Rechberg, 2020; Estrada et al., 2021).

In 1990, Salovey and Mayer proposed conceptualizing EI as an overarching theory. They defined EI as a fundamental component of social intelligence, facilitating an individual's ability to manage emotions, maintain positivity, and cultivate personal relationships. Salovey and Mayer introduced this concept, which was later developed by Goleman in 1995 and Freshman and Rubino in 2002. Emotional intelligence's five central competencies or dimensions have been identified: self-awareness (SA), self-regulation (SR), motivation (M), empathy (E), and social skills (SS) (Blak Hourani et al., 2021; Bailey, 2021; Duygulu et al., 2011; Anari, 2012). During their time at university, students are faced with multifaceted decisions, including product purchases, which are influenced by a variety of factors such as financial constraints, product quality, BL, and peer influence (Santos, Wang, & Lewis, 2018). EEI, or the ability to understand and manage one's emotions and recognize those of others, is crucial in navigating this complexity. High EEI helps students manage the stress associated with these decisions, enables critical evaluation of needs and wants, and promotes resistance to impulsive purchases and societal trends. This ability to distinguish actual needs from marketing-driven wants and to avoid peer pressure plays a crucial role in DM's consistent with their long-term goals and values. Given the widespread recognition of the challenges of DM (Williamson et al., 2020), enhancing EEI could be essential to equipping students with the skills to make more informed and rational decisions in their academic and personal lives.

BL is a significant factor in consumer DM (Oke et al., 2016; Naeem & Sami, 2020; Gu & Wang, 2023). It refers to a consumer's positive feelings toward a brand and commitment to repeat purchases (Akoglu et al., 2022). It represents a consumer's emotional connection and preference for a brand (Centeno et al., 2022). Studies suggest that individuals with high EEI tend to have more stable and positive relationships with brands (Aziziha et al., 2014; Dang &

Tran, 2023; Prentice, 2019). The relationship between EEI and DM is intriguing, particularly when considering the influence of BL. BL can enhance the DM experience by encapsulating a consumer's loyalty and emotional attachment (Lamppu, 2021). Research on EEI and DM shows that individuals with high EEI can make wise decisions by applying their emotional awareness and regulation abilities (Sharma et al., 2024; Lenka & Gupta, 2020). In consumer behavior, this skill translates to a more precise evaluation of brand attributes, influencing BL (Khademi Gerashi et al., 2021; Umrallyeva et al., 2022; Petrides & Furnham, 2001). Recent research has investigated how BL mediates the relationship between EEI and DM, which sheds light on the role of EEI in shaping consumer loyalty and choice. For instance, in their study published in 2023, Kankam and Charnor found that EEI can aid in managing emotional reactions towards brands, influencing DM outcomes.

This study aims to investigate the impact of EEI on DM among students at Karabük University in Turkey, with a specific focus on the mediating role of BL in this relationship. Based on Salovey and Mayer's (1990) Theory of EI, this study aims to investigate the role of EEI in improving DM and interpersonal relationships. Current academic literature lacks empirical studies that examine how BL affects the relationship between EEI and DM. Previous studies have mainly analyzed these variables separately or using a two-variable approach, which does not fully capture their complex relationships. The research methodology is explained in Section 3 after a thorough analysis, discussion, and synthesis of the findings. The study's conclusions provide both limitations for future study of the study and managerial implications.

2. Literature review

2.1 EEI

Harvard Business School (2003) posits that effective leadership is significantly correlated with a high level of EI, comprised of self-awareness (SA), self-regulation (SR), motivation (M), empathy (E), and social skills (SS). These critical EEIs are detailed in Table 1.

Table 1. Components of Emotional Intelligence.

<i>Component</i>	<i>Definition</i>	<i>Features</i>
Self-Awareness (SA)	The ability to recognize and comprehend one's own emotions, moods, and drives, alongside their impact on others	Self-confidence. Realistic self-assessment. A self-deprecating sense of humor.
Self-Regulation (SR)	Ability to control or adjust disruptive impulses and moods and the inclination to reflect before acting	Trustworthiness and integrity. Comfort with ambiguity. Openness to change.
Motivation (M)	Describes a passion for working that extends beyond financial gain or status, marked by a tendency to pursue goals with energy and persistence.	Strong drive to achieve. Optimism, even when facing failure. Organizational commitment.
Empathy	Ability to grasp the emotional states of	Expertise in building and

(E)	others, coupled with the skill to respond to people based on their emotional reactions.	retaining talent. Cross-cultural sensitivity Service to clients.
Social Skills (SS)	Proficiency in managing relationships and building networks, adept at identifying common ground and establishing rapport.	Effectiveness in leading change. Persuasiveness. Expertise in building and leading teams.

EI, as conceptualized in the seminal work of Salovey and Mayer (1990), comprises several integral components that facilitate the understanding, using, and managing emotions in oneself and others. These components are central to applying EI across various domains of life, including personal development and professional success.

SA is the foundational element of EI, enabling individuals to recognize and understand their emotional states, preferences, motivations, and impact on others. This introspective capability is crucial for personal growth, as it allows individuals to identify their strengths and weaknesses, align their actions with their values, and navigate life with a greater sense of purpose (Brackett et al., 2011). Enhanced self-awareness facilitates better decision-making, as individuals are more attuned to their emotional responses and can make congruent choices with their true selves.

SR involves managing one's emotions and impulses effectively across different situations. It encompasses the capacity to stay calm under pressure, adapt to change seamlessly, and handle conflict constructively (Gross, 2015). By exercising self-regulation, individuals can focus on long-term goals despite short-term emotional responses, demonstrating resilience and reliability. This skill is precious in professional settings, where emotional composure can influence leadership effectiveness and team dynamics.

M is characterized by an inner drive to pursue goals for personal satisfaction rather than external rewards. This component of EI is linked to more remarkable persistence, a positive attitude toward challenges, and a commitment to personal and organizational objectives (Ryan & Deci, 2017). Individuals with high levels of motivation are not easily deterred by setbacks; instead, they view failures as opportunities for learning and growth. This relentless pursuit of excellence is critical to achieving sustained success and fulfillment.

E extends beyond simply understanding others' emotions; it involves sharing and responding to them caringly and compassionately (Batson, 2009). Empathetic individuals are adept at building strong, supportive relationships because they can perceive and respect the perspectives and feelings of others. In the workplace, empathy enhances team cohesion, facilitates effective communication, and helps resolve conflicts amicably. It also underpins effective leadership, as leaders who demonstrate empathy are better equipped to motivate and inspire their teams.

SS encompasses many abilities that facilitate successful interpersonal interactions and relationship building. These skills include effective communication, conflict resolution, leadership, and inspiring and influencing others (Lopes et al., 2003). Mastery of social skills enables individuals to easily navigate social complexities, foster collaborative environments, and lead teams toward common goals. SS is indispensable for creating and maintaining meaningful connections and achieving collective success in both personal and professional

spheres.

The elements of emotional intelligence—self-awareness, self-regulation, motivation, empathy, and social skills—enhance individuals' ability to understand and manage emotions in themselves and others. This comprehensive understanding of EEI highlights its importance in personal development and contributes to professional efficacy, leadership quality, and overall life satisfaction.

2.2 BL

Brand loyalty measures a customer's attachment to a brand, motivating them to consistently purchase their preferred brand (Atulkar, 2020; Pappu & Quester, 2016; Coelho et al., 2018). Studies show that a consumer's preference demonstrates BL for a brand based on previous shopping experiences (Akoglu & Özbek, 2022), measured by their repurchase behaviour. BL is the likelihood of a customer switching to another brand, mainly when there are changes in price, quality, quantity, and features (Suwarno, 2021). It represents a commitment to repurchase in the future that remains unchanged in different situations (Tunjungsari et al., 2020). according to Lien et al. (2015). True BL occurs when customers emotionally attach to and trust the brand (Atulkar, 2020). Loyalty can be divided into short-term and long-term, with short-term loyalty not being true brand loyalty. Long-term loyalty is when customers consistently repurchase the same brand, even when better options are available (Joseph et al., 2020).

2.3 DM

Decision-making is a complex cognitive process that entails selecting a preferred course of action from a set of alternatives (Wallsten, 2024). This intricate process is foundational to human behavior, influencing every aspect of an individual's and organizational life. According to Simon (1955), decision-making involves steps starting from problem recognition, through which an individual or group identifies a gap between the current state and desired objectives. Following this, relevant information is gathered and evaluated to assess possible paths of action (Simon, 1955).

DM constitutes a procedural framework through which individuals, groups, or organizations determine the future courses of action aligned with predefined objectives, constrained by the limitations of accessible resources (Musfidah et al., 2022). Characteristically iterative, this process encompasses several critical stages: the delineation of the problem or issue, the collection and analysis of pertinent information, the formulation of conclusions, and the integration of insights gleaned from prior experiences. This systematic approach underscores the strategic evaluation and selection of actions, emphasizing the adaptive learning component as essential for refining DM capabilities over time (Martins et al., 2021; Pinney & Carroll, 2022; Yang & Gu, 2023; Nurjaman & Listyantoko, 2023).

As Bazerman and Moore (2013) outlined, effective DM requires understanding these biases and implementing strategies to mitigate their effects. This may involve seeking diverse perspectives, considering the long-term consequences of decisions, and employing analytical tools to evaluate options objectively. The process also benefits from a balance between intuitive and rational thinking, where emotional intelligence plays a critical role in recognizing and managing emotions that can influence DM (Goleman, 1995).

Furthermore, DM in organizational contexts often involves additional complexities, including aligning decisions with strategic objectives, stakeholder interests, and ethical considerations. Mintzberg et al. (1976) describe the DM in organizations as iterative and nonlinear, involving deliberate planning and reactive adjustment to unforeseen challenges. Lastly, DM is a multifaceted process integrating cognitive, psychological, and social dimensions. It requires not only the analysis of information and assessment of alternatives but also an awareness of the biases and emotional influences that impact human judgment (Alhadad, 2018).

2.4 EEI and BL

In the context of EEI and its influence on consumer behavior, the scholarly discourse has primarily concentrated on the direct impact of EEI from the consumer's standpoint (Hasford et al., 2022; Chen et al., 2011; Kidwell et al., 2011; Kidwell et al., 2007; Mayer & Geher, 1996). Despite this focus, the specific relationship between EEI and BL remains less explored (Anastasiadou et al., 2022). Mayer and Salovey (1997) introduced the emotional ability model, which Baer (2018) later expanded to incorporate aspects of consumer behavior, positing that BL significantly influences consumers' DM. Supporting this view, Patterson et al. (1997) and Joseph and Newman (2010) suggest that BL can, directly and indirectly, affect consumer DM, contingent upon the individual's EEI towards the product in question.

Further contributions to the field, such as those by Beason (2015) and Peters (2016), have shed light on how EEI aids consumer DM. Peters (2016) established an association between EEI and consumer purchasing behavior, and Kidwell et al. (2007) specifically highlighted that consumers with high EEI tend to resist impulse purchases.

Despite the extensive evidence supporting the role of EEI, Patterson et al. (1997), Joseph and Newman (2010), and Rust and Oliver (1994) emphasize the importance of consistent purchasing behavior in fostering BL. Additionally, Lee (2018) and Grant (2014) argue that retaining loyal customers is more cost-effective than acquiring new ones, noting that highly devoted customers are inclined to spend more, thus enhancing the profitability of firms with loyal clientele (Mayer & Geher, 1996).

SA, one of the five pillars of emotional intelligence identified by Salovey and Mayer (1990), equips individuals to recognize and understand their emotions, motivations, and desires. This introspective insight can significantly influence consumer behavior, particularly how consumers align their purchasing decisions with their values and identity (Salovey & Mayer, 1990). When consumers understand their values and preferences, they are more likely to form strong attachments to brands that mirror them, enhancing BL (Tarmidi & Fauziah, 2022; Schmitt, 2012; Keller, 1993; Thomson et al., 2005). According to Goleman (1995), individuals with high EI, including SA, are better at recognizing what they genuinely value and seek in products or services. This alignment between personal and brand values can foster a deeper connection to the brand, enhancing BL (Goleman, 1995). Furthermore, Aaker (2012) suggests that brands that resonate with a consumer's self-concept are more likely to engender loyalty, as consumers see these brands as extensions of their identities. Based on the above, it is proposed hypothesis that:

H1a: SA has a positive effect on BL.

SR is crucial in shaping consumer behavior towards brands, influencing BL through informed DM, resistance to impulsive purchases, emotional resilience, adaptability, and a preference for sustainable consumption. Brands that understand and cater to the values and needs of SR consumers can foster more robust, more loyal relationships with their customer base (Hofmann et al., 2012; Tugade et al., 2004; White et al., 2019). The following can, therefore, be postulated:

H1b: SR has a positive effect on BL.

M plays a pivotal role in shaping BL, acting as the driving force that influences why consumers prefer, remain loyal to, or advocate for certain brands over others. M highlights the dynamic interplay between consumer M and BL (Cheung et al., 2021; Stein & Ramaseshan, 2020). Therefore, we posit that the hypothesis is as follows:

H1c: M has a positive effect on BL.

E, a core component of EI, significantly impacts BL by facilitating a deeper understanding and connection between consumers and brands. E in a brand context refers to a brand's ability to recognize, understand, and address its consumers' emotions, needs, and values. This empathetic connection can enhance consumer satisfaction, foster trust, and ultimately increase BL (Maklan & Klaus, 2011; Hennig-Thurau et al., 2004; Thomson et al., 2005; Palmatier et al., 2006). The hypothesis is proposed based on the literature above that:

H1d: E has a positive effect on BL.

SS plays a crucial role in fostering BL. SS refers to a brand's ability to effectively communicate, engage, and build customer relationships through various channels. This competency enhances customer experiences and strengthens emotional ties between the brand and its consumers, ultimately influencing loyalty (Coombs, 2021; Hollebeek et al., 2014). The hypothesis is proposed based on the literature above that:

H1e: SS has a positive effect on BL.

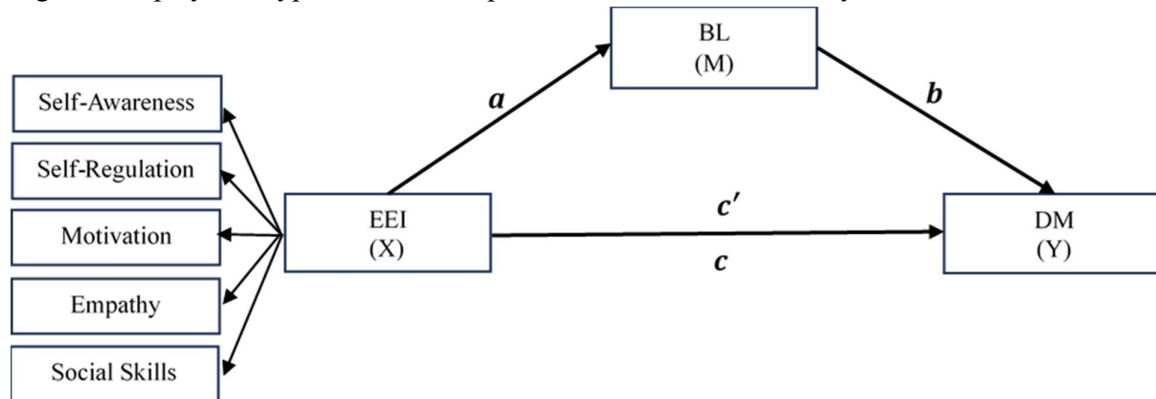
2.5 BL and DM

The available evidence suggests that BL impacts consumers' DM (Joseph & Newman, 2010; Patterson et al., 1997; Rust & Oliver, 1994; Prentice et al., 2020). Consumers with BL tend to purchase more products from a company based on their emotional, cognitive, or behavioral motivations (Beason, 2015; Liu & Liu, 2013; Prentice et al., 2020; Tuškej et al., 2013). Consumers perceive a brand positively and commit to it strongly (Simon & Tossan, 2018). Consumers perceive a brand positively and commit to it strongly (Simon & Tossan, 2018). Grant (2014) also supports this idea. This commitment leads to BL, which is the intention of the customer to continue the relationship with the brand based on the product's performance and meeting the customers' expectations (Beason, 2015; Peters, 2016; Simon & Tossan, 2018). There is no strong consensus on EEI or its constituents, as Beason (2015) and Patterson et al. (1997) noted. Based on the literature reviewed, the hypothesis is proposed that:

H2: BL has a positive effect on DM.

2.6 Conceptual framework

Figure 1 displays the type of relationship that exists between the study variables.



Source: Adapted from Hayes (2022)

Figure 1 presents the model corresponding to number 4 of Hayes' mediation relationship model. The model proposes that EEI primarily affects BL (Path a), which affects MD (Path b). Therefore, the effect of EEI on MD is realized through BL. Additionally, EEI directly affects MD (Path c').

3. Methodology

3.1 Research Method and Data Collection Procedure

This study employed a quantitative methodology to investigate the relationship between EEI and DM, with BL as a mediator. As per Cohen (1980), quantitative social research employs empirical methods and makes empirical assertions (Anderson & Lemken, 2023; Treagust & Won, 2023). The author defines an empirical claim as a description of objective physical reality, not a prediction (Miller, 2021). According to Creswell (2020), numerical data is collected and analyzed using mathematical methods such as statistics. Quantitative research employs scales to quantify variables precisely (Lazaraton, 2005; Sharma, 2010). The data for this study was collected through an online survey portal (Google Forms) and completed by 389 students from Karabuk University.

3.2 Sample characteristics

The sample comprises 389 students from Karabuk University, and the dataset presents demographic characteristics and survey responses of 389 participants, where 82.5% are male and 17.5% are female. Age-wise, the majority (54.5%) are between 19 and 21 years, followed by 37.8% between 15 and 18 years, indicating a young sample. Regarding income, 54% earn less than 5000 ₺; the rest are distributed across higher income brackets, with 15.9% earning 8000 ₺ and above. Regarding emotional intelligence, 39.1% rate their ability to understand and manage emotions as moderate and 35% as high. When considering the influence of emotional appeal on purchasing decisions, 42.2% find it moderately influential, while 21.9% find it very influential. Over half of the respondents (53%) have felt a significant emotional impact from a brand. The main reasons for switching brands include quality (71.2%), price (24.2%), and emotional connection (4.6%), highlighting quality as the predominant factor influencing BL. The results are presented in Table 2.

Table 2. Respondents' profile

Demographic Characteristics		Frequency	%
<i>Gender</i>	Male	321	82.5
	Female	68	17.5
<i>Age</i>	15 -18	147	37.8
	19 - 21	212	54.5
	22 - 25	25	6.4
	26 - 28	5	1.3
<i>Income</i>	Less than 5000 ₺	210	54.0
	5000 - 5999 ₺	58	14.9
	6000- 6999 ₺	37	9.5
	70000- 7999 ₺	22	5.7
	8000 ₺ and above	62	15.9
<i>How would you rate your ability to understand and manage your emotions?</i>	Very Low	11	2.8
	Low	41	10.5
	Moderate	152	39.1
	High	136	35.0
	Very High	49	12.6
<i>How much does emotional appeal influence your decision when purchasing a product?</i>	Not at all influential	32	8.2
	Slightly influential	84	21.6
	Moderately influential	164	42.2
	Very influential	85	21.9
	Extremely influential	24	6.2
<i>Have you experienced a brand that has significantly impacted you emotionally?</i>	Yes	206	53.0
	No	183	47.0
<i>What might lead you to switch from your preferred brand to a competitor?</i>	Price	94	24.2
	Quality	277	71.2
	Emotional Connection	18	4.6

3.3 measurement instrument

The study identified 35 items for the final data collection process, measured on a 5-point Likert scale (1=strongly disagree, 5=strongly agree) to obtain genuine student responses. The structured questionnaires included the respondent's demographic characteristics (Table 2) and questions related to the research topic. EEI was measured using a 25-item scale that Singh (2004) adopted. The questionnaire covers five domains: self-awareness, self-regulation, motivation, social skills, and empathy. DM was measured using a 5-item scale adopted from Mincemoyer and Perkins (2003), while BL was measured using scales adapted from Helgesen and Nettet (2007) and Hennig-Thurau et al. (2001).

The factor loadings' Average Variance Extracted (AVE) and Construct Reliability (CR) were manually calculated using the provided formulas. Since SPSS V.26 does not have an option to calculate them, manual calculation was necessary. CR is another guideline for assessing

convergent validity. Although Cronbach's alpha is a well-known coefficient for testing reliability (Bollen & Long, 1993; Garson, 2011), According to Hair et al. (2010) suggest that a CR value of 0.7 or higher is acceptable. Equation 1 is used to calculate CR.

$$CR = \frac{(\sum_{i=1}^n \lambda_{yi})^2}{(\sum_{i=1}^n \lambda_{yi})^2 + (\sum_{i=1}^p \text{Var}(\epsilon_i))}$$

CR = Indicates composite reliability.

λ_y = The standardized factor loading.

$\text{var}(\epsilon_i)$ = The variance due to the measurement error.

The third method for determining a construct's validity is applying AVE, which compares the level of variance a construct captures to the level due to measurement error. A value of 0.7 or higher is considered very good, while a level of 0.5 or higher is acceptable (Hair et al., 2010). Equation 2 is used to calculate AVE.

$$AVE = \frac{\sum_{i=1}^n \lambda_i^2}{n}$$

AVE = Average variance extract.

λ_i = The standardized factor loading.

n = The number of items

Table 3 presents the results for construct reliability and validity. Internal reliability was tested using Cronbach's alpha, with all variable values above 0.7, within the acceptable range recommended by Nunally and Bernstein (1994). VIF values were used for the variables to check for multicollinearity, with all values below 3 indicating no issues with multicollinearity. The composite reliability and AVE values were both checked. The composite reliability values exceeded 0.7, and all AVE values exceeded the recommended 0.5 (Cronbach, 1951; Peterson, 1994).

Table 3. Reliability and validity statistics

Variables	N of Items	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
SA	5	0.878	0.903	0.674
SR	5	0.889	0.919	0.694
M	5	0.898	0.926	0.714
E	5	0.882	0.914	0.680
SS	5	0.906	0.930	0.727
BL	5	0.804	0.866	0.565
DM	5	0.893	0.921	0.701

4. Data analysis procedure

The study employed SPSS Version 26 for data analysis and Hayes PROCESS macro for SPSS Version 4.2 (Hayes, 2022) to test mediation. The Baron and Kenny model (1986) was used first, followed by the PROCESS macro by Hayes (2022), to establish the specific value and significance of the mediation relationship.

4.1 Descriptive Statistics and Correlations

The mean values of the constructs range from 2.92 for DM to 3.5753 for SA, indicating varying levels of these traits or behaviors among the participants. Standard deviations suggest differences in the distribution of responses for each construct, with DM showing the highest variability. The correlation matrix reveals that all constructs are significantly correlated with each other at the 0.01 level, with coefficients ranging from 0.371 to 0.770, indicating moderate to strong positive relationships. Notably, the correlations between constructs such as SR and M (0.745) and SS and M (0.750) are among the strongest, suggesting that higher levels of SR and SS are associated with higher M. The significant positive correlation between BL and MD (0.602) highlights a strong association between BL and DM, implying that BL might influence decisions regarding that brand. Table 4 provides Pearson correlation statistics and descriptive statistics.

Table 4. Descriptive statistics and Correlations

Variables	Mean	S. D.	SA	SR	M	E	SS	BL	DM
SA	3.5753	0.90725	1						
SR	3.57	0.920	0.770**	1					
M	3.42	0.965	0.676*	0.745*	1				
E	3.34	0.958	0.657*	0.696*	0.724*	1			
SS	3.44	0.948	0.640**	0.710*	0.750**	0.660**	1		
BL	3.23	0.815	0.545*	0.566*	0.592*	0.584*	0.568*	1	
DM	2.92	1.041	0.422*	0.421*	0.391*	0.375*	0.371*	0.602**	1

** . Correlation is significant at the 0.01 level (2-tailed). SA: Self-Awareness, SR: Self-Regulation, M: Motivation, E: Empathy, SS: Social Skills, BL: Brand Loyalty, MD: Decision-Making.

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4.4 Hypotheses testing

Table 5 shows a nuanced relationship between different aspects of EEI and BL, with M, E, and SS significantly contributing to BL, as supported by hypotheses H1c, H1d, and H1e. The beta coefficients for M ($\beta = 0.174$, $p = 0.013$), E ($\beta = 0.218$, $p = 0.000$), and SS ($\beta = 0.162$, $p = 0.011$) are significant and indicate their substantial influence on enhancing BL among individuals; this reflects the pivotal role of intrinsic M, the capacity for empathetic understanding, and adeptness in social interactions in cultivating a loyal student base. In contrast, the hypotheses (H1a and H1b) of SA and SR did not receive statistical support, as evidenced by their p-values ($p = 0.057$ and $p = 0.286$, respectively), which exceeded the conventional threshold for significance; this indicates that although SA and SR are crucial of EEI, their direct impact on BL may be less significant than that of other EEI facets in this context. The model indicates a significant positive correlation between the EEI and BL, with an $R = 0.657$, suggesting that higher levels of BL are associated with improvements in EEI. The $R^2 = 0.431$ indicates that the model's predictors can account for approximately 43.1% of the variance in BL; with a significant $F = 58.133$, $p < 0.05$, the analysis conclusively demonstrates that the regression model, comprising SA, SR, M, E, and SS, significantly impacts BL. The hypothesis (H2) regarding the impact of BL on DM was strongly supported with a substantial beta coefficient ($\beta = 0.602$, $p = 0.000$), indicating a powerful direct relationship; this highlights the critical role of BL as a determinant in DM, where a higher degree of loyalty significantly predicts DM outcomes. The $R = 0.602$ indicates a moderate to a strong positive correlation between BL and MD, The $R^2 = 0.362$ signifies that approximately 36.2% of the variance in DM is explained by BL, $F = 219.640$, $p < 0.05$, a ratio of the mean square regression to the mean square residual, tests the null hypothesis that BL does not affect DM. These results underscore the multifaceted impact of EEI on BL and highlight the consequential role of BL in shaping DM. The findings indicate that promoting motivation, engagement, and social support within student engagement strategies may be crucial in improving blended learning, which strongly impacts students' decision-making.

Table 5. The Regression Analysis Outcomes

Hypothesis	Regulation Weights	B	Std. Error	Beta	t	p-value	95% CI		R	R ²	F	P
							Lower	Upper				
H_{1a}	SA→BL	0.109	0.057	0.121	1.912	0.057	-0.03	0.221	0.657 ^a	0.431	58.133	0.000 ^b
H_{1b}	SR→BL	0.068	0.064	0.077	1.069	0.286	-0.057	0.193				
H_{1c}	M→BL	0.149	0.060	0.174	2.489	0.013	0.031	0.267				
H_{1d}	E→BL	0.184	0.052	0.218	3.574	0.000	0.083	0.286				

H_{1e}	SS→B L	0.1 38	0.0 54	0.1 62	2.5 64	0.0 11	0.0 32	0.2 43				
<i>Note.</i> *P < 0.05. SA: Self-Awareness, SR: Self-Regulation, M: Motivation, E: Empathy, SS: Social Skills, BL: Brand Loyalty.												
H₂	BL→ MD	0.7 68	0.0 52	0.6 02	14. 820	0.0 00	0.6 66	0.8 70	0.6 02 ^a	0.3 62	219. 640	0.0 00 ^b
<i>Note.</i> *P < 0.05. BL: Brand Loyalty, MD: Decision-Making.												

Note. *P < 0.05. SA: Self-Awareness, SR: Self-Regulation, M: Motivation, E: Empathy, SS: Social Skills, BL: Brand Loyalty.

H2 BL→MD 0.768 0.052 0.602 14.820 0.000 0.666 0.870 0.602a 0.362
219.640 0.000b

Note. *P < 0.05. BL: Brand Loyalty, MD: Decision Making.

4.5. Mediation Effect Analysis

The study's second step involved constructing the mediation model. Baron and Kenny (1986) came up with three conditions that must be met for a model to be valid: the independent variables must be related to the mediator, the dependent variables must be related to the mediator, and when the mediator is taken into account, the relationship between the independent variables and dependent variables is either less significant (partial mediation) or not significant at all (complete mediation). A R-Pearson correlation analysis was performed to verify the first two conditions and hypotheses. The results are presented in Table 4. The analysis revealed a statistically significant, positive, and high correlation between all variables examined. This conclusion enabled us to verify the mediating model of DM. The mediation model was constructed using EEI as an independent variable and DM as the dependent variable, with BL tested as the mediator. The calculation was performed using SPSS v.26 and Model 4 of Process Macro-Version 4.2 by Andrew F. Hayes. To confirm the relationship between the hypotheses, it was assumed that the resulting regression model would be statistically significant and that the total effect would exceed the direct effect calculated for the specified variables. For instance, H3a reveals that SA directly influences MD (B = 0.155, p = 0.005) and has a notable indirect effect through BL (B = 0.330), culminating in a significant total effect (B = 0.485, p = 0.000).

Similarly, SR's (H3b) impact on MD is substantial, with a direct effect (B = 0.134, p = 0.016) and an indirect effect through BL (B = 0.342), resulting in a significant total effect (B = 0.476, p = 0.000). M (H3c), while showing a weaker direct effect on MD, still contributes significantly to MD through BL, as does E (H3d) and SS (H3e), albeit with negligible direct impacts on MD. These findings underscore the complexity of the pathways through which psychological constructs influence decision-making, particularly highlighting the mediating role of BL. Notably, the indirect effects across all hypotheses show how important BL is as a mediator in the relationship between these concepts and DM; this means that interventions that aim to improve the effectiveness of DM should include strategies that increase BL. The results of the analysis are included in Table 6.

Table 6. Mediating Effect Analysis

Hypothesis	Variable / effect	B	SE	T	P	95% Confidence interval		
						LLCI	ULCI	
H _{3a}	SA→BL	0.489	0.038	12.772	0.000	0.414	0.565	
	SA →MD	0.155	0.055	2.809	0.005	0.046	0.263	
	SA→BL→MD	0.675	0.061	11.011	0.000	0.554	0.795	
	<i>Effects</i>							
	Direct	0.155	0.055	2.809	0.005	0.046	0.263	
	Indirect	0.330	0.053	-	-	0.235	0.442	
	Total	0.485	0.053	9.170	0.000	0.381	0.589	
H _{3b}	SR→BL	0.501	0.037	13.501	0.000	0.428	0.574	
	SR →MD	0.134	0.055	2.417	0.016	0.025	0.243	
	SR→BL→MD	0.683	0.062	10.928	0.000	0.560	0.806	
	<i>Effects</i>							
	Direct	0.134	0.055	2.417	0.016	0.025	0.243	
	Indirect	0.342	0.052	-	-	0.245	0.449	
	Total	0.476	0.052	9.128	0.000	0.373	0.579	
H _{3c}	M→BL	0.509	0.035	14.451	0.000	0.440	0.579	
	M →MD	0.059	0.055	1.063	0.289	-0.050	0.168	
	M→BL→MD	0.728	0.064	11.317	0.000	0.601	0.854	
	<i>Effects</i>							
	Direct	0.059	0.055	1.063	0.289	-0.050	0.168	
	Indirect	0.371	0.053	-	-	0.270	0.479	
	Total	0.429	0.051	8.357	0.000	0.328	0.530	
H _{3d}	E→BL	0.493	0.035	14.148	0.000	0.425	0.562	
	E →MD	0.038	0.054	0.708	0.479	-0.068	0.144	
	E→BL→MD	0.742	0.064	11.611	0.000	0.616	0.867	
	<i>Effects</i>							
	Direct	0.038	0.054	0.708	0.479	-0.068	0.144	
	Indirect	0.366	0.051	-	-	0.271	0.472	
	Total	0.404	0.051	7.950	0.000	0.304	0.504	
H _{3e}	SS→BL	0.483	0.036	13.578	0.000	0.413	0.553	
	SS →MD	0.047	0.054	0.882	0.379	-0.058	0.153	
	SS→BL→MD	0.737	0.063	11.693	0.000	0.613	0.861	
	<i>Effects</i>							
	Direct	0.047	0.054	0.882	0.379	-0.058	0.153	
	Indirect	0.356	0.053	-	-	0.259	0.466	
	Total	0.403	0.051	7.866	0.000	0.303	0.504	

Note. Level of confidence for all confidence intervals in output: 95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals: 5000

SA: Self-Awareness, SR: Self-Regulation, M: Motivation, E: Empathy, SS: Social Skills, BL: Brand

Loyalty, MD: Decision-Making.

Note. Level of confidence for all confidence intervals in output: 95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals: 5000

SA: Self-Awareness, SR: Self-Regulation, M: Motivation, E: Empathy, SS: Social Skills, BL: Brand Loyalty, MD: Decision-Making.

4. Discussion

The study examines the relationship between EEI and outcomes in university students, specifically in the context of DM and BL towards products. It explores how individual facets of EEI, such as SA, SR, M, E, and SS, influence these outcomes.

Furthermore, Table 7 presents findings demonstrating SA's significant direct and total effects on DM; this highlights the crucial role that an individual's ability to understand and manage emotions plays in navigating complex decisions; $B = 0.155$ and a statistically significant $p = 0.005$ quantify the direct impact of SA on DM, this is likely due to their heightened awareness and management of their emotions. The study confirms Mayer, Salovey, and Caruso's (2004) theory that self-aware individuals exhibit enhanced decision-making capabilities. The finding shows that SA has an indirect effect on DM through BL.

Table 7. Impact of SA on BL and MD: A Mediation Analysis

Antecedent	M (BL)					Y (DM)				
		<i>B</i>	<i>SE</i>	<i>P</i>	β		<i>B</i>	<i>SE</i>	<i>P</i>	β
X (SA)	<i>a</i>	0.489	0.038	0.000	0.545	<i>c'</i>	0.155	0.055	0.005	0.135
M (BL)						<i>b</i>	0.675	0.061	0.000	0.528
	$R^2 = 0.297$					$R^2 = 0.375$				
	$F = 163.127$					$F = 115.721$				
B: Coefficient, SE: Standard Error. β : Standardized coefficients										

The data suggests that students with a higher level of SA tend to exhibit stronger BL, which subsequently influences their purchasing decisions. The total effect on DM is 0.485 with $p = 0.000$, indicating a significant impact. Understanding the relationship between SA, BL, and purchasing behaviour provides valuable insight. Self-aware individuals who have developed loyalty towards specific brands are likelier to make purchasing decisions that align with their values and self-concept.

This finding extends to Mayer, Salovey, and Caruso (2004) and Kankam and Charnor (2023). Moreover, by empirically demonstrating the direct impact of SA on consumer outcomes in a university setting, the theoretical framework could provide a nuanced understanding of the role of EI beyond general psychological well-being to specific consumer contexts. The study's findings are consistent with the existing literature and extend it by illustrating the mediating role of BL between SA and DM, providing a more comprehensive model of student behavior. Further, Table 8 shows a positive and significant relationship between SR and MD ($B = 0.134$, $p = 0.016$), indicating that students with strong SR skills are better equipped to make informed purchasing decisions. The study also found a significant influence of SR on BL, with a direct

effect of 0.501 and $p = 0.000$.

Table 8. Impact of SR on BL and MD: A Mediation Analysis

Antecedent	M (BL)					Y (DM)				
		<i>B</i>	<i>SE</i>	<i>P</i>	β		<i>B</i>	<i>SE</i>	<i>P</i>	β
X (SR)	<i>a</i>	0.501	0.037	0.000	0.566	<i>c'</i>	0.134	0.055	0.016	0.118
M (BL)						<i>b</i>	0.683	0.062	0.000	0.535
	$R^2 = 0.320$					$R^2 = 0.372$				
	$F = 182.270$					$F = 114.117$				
B: Coefficient, SE: Standard Error. β : Standardized coefficients										

This study indicates that students with high SR are more likely to develop a consistent preference for brands that they perceive as beneficial over time. These students tend to remain loyal to brands that align with their values and needs, highlighting the vital role of emotional control in cultivating BL. The result also found a significant indirect effect of SR on BL through emotional control, with a value of 0.342. This mediation effect emphasizes a significant pathway through which SR affects DM. The total effect of SR on DM, combining both direct and indirect influences, is 0.476, indicating a substantial overall impact. This comprehensive effect highlights the multifaceted role of SR in the consumer behavior of students, affecting both their BL and DM. This finding is significant when contrasted with previous research emphasizing the role of SR in academic and personal success (Bubić, 2015). It illustrates the wide-ranging applicability of SR in navigating intricate student environments, thus confirming and expanding the theoretical assumptions regarding the influence of EEI on real-world DM situations (Kornilova, 2023; Liu et al., 2022).

However, the finding shows that the impact of M on MD and BL among students is complex. The impact of M on DM is relatively modest, quantified as $B = 0.059$, $p = 0.289$, as shown in Table 9.

Table 9. Impact of M on BL and MD: A Mediation Analysis

Antecedent	M (BL)					Y (DM)				
		<i>B</i>	<i>SE</i>	<i>P</i>	β		<i>B</i>	<i>SE</i>	<i>P</i>	β
X (M)	<i>a</i>	0.509	0.035	0.000	0.592	<i>c'</i>	0.059	0.055	0.289	0.054
M (BL)						<i>b</i>	0.728	0.064	0.000	0.570
	$R^2 = 0.351$					$R^2 = 0.364$				
	$F = 208.844$					$F = 110.421$				
B: Coefficient, SE: Standard Error. β : Standardized coefficients										

Therefore, it can be concluded that M may not have a significant direct effect on DM. However, M significantly impacts BL, with a direct effect measured at $B = 0.509$, $p = 0.000$. This result emphasizes the importance of M in developing a strong sense of BL. It indicates that students' brand preferences are closely linked to their motivations and values.

Furthermore, the mediation analysis reveals that BL indirectly affects DM through M, with a

value of 0.371. This pathway demonstrates that although M may not have a significant direct effect on DM, it has a considerable impact on BL, affecting DM. The influence of M on student behaviour is significant, with a total effect of 0.429 when considering both the direct and indirect impacts of M on DM. These findings are integrated with theoretical insights from Ryan and Deci's Self-Determination Theory (2000), demonstrating that M plays a central role in shaping consumer engagement and loyalty. The theory emphasizes the importance of motivation in fostering engagement and well-being, providing a valuable framework for understanding how motivational factors influence blended and distance learning among university students. The integration of Ryan and Deci's Self-Determination Theory provides a robust theoretical foundation that enhances our comprehension of the intrinsic and extrinsic motivators that guide BL and DM. The theory suggests that motivations are closely linked to personal values and brand perceptions, providing a nuanced perspective on consumer engagement (Labrecque et al., 2011).

Accordingly, Table 10 presents the direct effect of E on BL as $B = 0.493$, $p = 0.000$, indicating a strong and significant relationship; this implies that students with higher levels of E are more likely to develop strong brand loyalty, especially toward brands that align with their values and demonstrate social responsibility.

Table 10. Impact of E on BL and MD: A Mediation Analysis

Antecedent	M (BL)					Y (DM)				
		<i>B</i>	<i>SE</i>	<i>P</i>	β		<i>B</i>	<i>SE</i>	<i>P</i>	β
X (E)	<i>a</i>	0.493	0.035	0.000	0.584	<i>c'</i>	0.038	0.054	0.479	0.035
M (BL)						<i>b</i>	0.742	0.064	0.000	0.581
	$R^2 = 0.341$					$R^2 = 0.363$				
	$F = 200.163$					$F = 109.929$				
B: Coefficient, SE: Standard Error. β : Standardized coefficients										

The ability to understand and connect with others, including by aligning with brands that reflect their values, plays a critical role in fostering BL among students. However, the direct effect of E on DM is modest, measuring at $B = 0.038$, $p = 0.479$, indicating that E may not have a significant direct impact on students' immediate DM; this suggests that while E is crucial for building BL, its direct influence on specific purchase decisions may be less pronounced. The significance of BL as a mediator in the interaction between E and DM is highlighted, with an indirect effect of 0.366. This section emphasizes BL's crucial function in facilitating the influence of E on DM, illuminating the intricate interplay among these factors. The total impact of empathy on decision-making is 0.404, considering both direct and indirect effects, which emphasizes the critical role of E in influencing student behavior.

The study contributes to a deeper understanding of how emotional connections and social values are integrated into BL processes by emphasizing the mediator role of BL. This finding supports the importance of empathy in creating long-term brand connections and enhances current models by outlining how E impacts student's choices.

Table 11. Impact of SS on BL and MD: A Mediation Analysis

Antecedent	M (BL)					Y (DM)				
		<i>B</i>	<i>SE</i>	<i>P</i>	β		<i>B</i>	<i>SE</i>	<i>P</i>	β

X (SS)	<i>a</i>	0.483	0.036	0.000	0.568	<i>c'</i>	0.047	0.054	0.379	0.043
M (BL)						<i>b</i>	0.737	0.063	0.000	0.577
		$R^2 = 0.323$					$R^2 = 0.363$			
		$F = 184.371$					$F = 110.145$			
B: Coefficient, SE: Standard Error. β : Standardized coefficients										

Consistent with this perspective, Table 11 shows a significant direct effect of SS on BL, with a recorded $B = 0.483$, $p = 0.000$; this highlights a strong and positive relationship between students' SS and BL. The results suggest that students who excel in social interactions are likelier to form strong connections with brands, particularly those who engage in meaningful communication and foster a sense of community. However, the study found that the direct impact of SS on DM is modest, with a quantified effect of $B = 0.047$, $p = 0.379$; this suggests that while SS is essential for fostering BL, they may not directly affect immediate DM, this highlights SS's nuanced role in students' behaviour, where their influence is more evident in the relational aspects of BL than in direct DM. The mediation analysis highlights the significant indirect effect of SS on DM through BL, valued at 0.356. This path shows the interplay between SS, BL, and DM, demonstrating how strong SS facilitates BL, which positively influences DM. The combined effect of SS on DM, including direct and indirect effects, is 0.403; this highlights the significant influence of SS on students' behaviour.

The study presents a comprehensive model that integrates relational dynamics into understanding student DM by demonstrating the indirect pathway through which SS influences DM. This provides a more prosperous and more integrated view of the role of EI in student's contexts.

Managerial implications

The findings from various studies provide insights for managers and marketers in different domains, including SA, M, E, and SS. These factors play significant roles in enhancing BL and achieving market dominance. Fostering SA among consumers can be a strategic approach to strengthen emotional connections with the brand, thereby increasing BL. This goal can be accomplished by implementing marketing strategies that prompt students to consider their values and how they align with the brand's values. Additionally, the importance of BL as a mediator in the relationships between SA, motivation, empathy, and market dominance highlights the need for establishing strong brand relationships through personalized marketing, loyalty programs, and customer relationship management. Developing an empathetic culture and improving organizational social skills are crucial for enhancing brand loyalty and market position. Training staff to recognize and respond to customer sentiments, creating products and services that meet customer needs, and engaging in meaningful communication can help achieve this goal.

Furthermore, marketing campaigns that resonate with consumers' goals and values can be beneficial in promoting self-regulatory capacities. Offering products that align with long-term well-being and fostering an environment that supports self-regulated decision-making are also effective strategies. Encouraging practices that enhance consumers' SR and investing in training and development programs to improve employees' SS are strategies that can increase

student satisfaction and loyalty, which are critical drivers of market dominance. Companies can build and maintain strong brand relationships by leveraging the combined power of E, SS, M, and SA, effectively enhancing their market dominance.

Limitations and further research

The study provides valuable insights into student's behavior. However, it is essential to acknowledge its limitations and suggest directions for further research to deepen the understanding of these dynamics. The study's focus on university students may limit the generalizability of the findings to a broader population. Relationships between EEI components and consumer behavior outcomes could vary among age groups, cultural backgrounds, and economic statuses.

Additionally, the study's cross-sectional nature restricts the ability to infer causality between the EEI and the outcomes of BL and MD. Longitudinal studies are necessary to establish temporal sequences and causal relationships more robustly. Although the study covers five critical components of EEI, it may not account for all aspects that could influence consumer behaviour. It is possible that other facets of emotional intelligence or psychological constructs could also play significant roles. The study's focus on the relationship between EEI and student behaviour in the context of BL and DM may not fully capture the impact of EEI on other students' interactions with brands, such as complaint handling, word-of-mouth behaviour, and online engagement.

Future research should aim to include a more diverse sample, encompassing a range of demographic groups, cultural backgrounds, and economic statuses. This would improve the generalizability of the findings. Additionally, conducting longitudinal research could establish the directionality and causality of the relationships between EEI and student behavior outcomes, providing deeper insights into how these dynamics evolve. Future studies could incorporate actual behavioral data, such as purchase history, social media engagement, and loyalty program participation, in addition to self-reported measures to assess BL and DM objectively. A more comprehensive understanding of the impact of emotional intelligence or related psychological constructs, such as resilience, stress management, and adaptability, on consumer behavior could be gained by exploring these aspects further. Investigating how emotional intelligence influences other areas of student interactions with brands, such as service recovery, brand advocacy, and sustainability concerns, could provide a fuller picture of the role of emotional intelligence in marketing and management. Implementing and evaluating interventions designed to enhance specific components of emotional intelligence among consumers could provide practical insights into how emotional intelligence training might influence consumer behavior and brand relationships.

5. Conclusion

In conclusion, this study has explored the relationship between EEI and its impact on BL and MD among university students. The analysis shows that both BL and MD are directly and indirectly affected by SA and SR, highlighting the significance of these EEI components in shaping students' preferences and choices. This indicates that students with higher levels of SA and SR are more conscious of their preferences and tend to exhibit greater consistency and loyalty in their purchasing behaviours. On the other hand, although motivation profoundly

impacts BL, its direct influence on MD seems less significant. This suggests that motivation may primarily drive loyalty rather than immediate MD.

Additionally, the findings indicate that Empathy and Social Skills have a more significant impact on BL, with a lesser direct effect on MD. This emphasizes the importance of emotional connection and social interaction in building BL. It suggests that brands that resonate with students emotionally and facilitate social engagement are more likely to cultivate a loyal customer base. Although the study contributes to understanding the relationship between EEI and student behaviour, it has limitations. The generalizability of the findings may be limited due to the reliance on a university student population.

Furthermore, using cross-sectional design and self-reported measures may introduce biases and hinder the establishment of causality. Therefore, future research should address these limitations by using longitudinal designs, diversifying the sample population, and incorporating objective measures of student behaviour. Further insights into the role of EEI in other areas of students' interactions with brands, such as complaint handling and brand perception, could enhance our understanding of how things work. Additionally, interventions aimed at improving EEI could provide valuable information. This study highlights EEI's impact on DM among students through BL. It provides valuable insights for marketers who aim to develop effective strategies that resonate with students' emotional and psychological decision-making dimensions. By incorporating an understanding of EEI components into marketing practices, brands can navigate the complex landscape of students' preferences and behaviours more effectively. This fosters stronger BL and more informed DM among students.

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