Routledge
Taylor & Francis Group

Journal of Marketing for Higher Education

ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/wmhe20

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To cite this article: Kaisar Kairat, Su Jin Lee & Jung Min Jang (07 May 2024): The determinants of recommendation intention and student satisfaction in private higher institutions: Empirical evidence from Kazakhstan, Journal of Marketing for Higher Education, DOI: 10.1080/08841241.2024.2350390

To link to this article: https://doi.org/10.1080/08841241.2024.2350390

Published online: 07 May 2024.

JOURNAL OF MARKETING FOR HIGHER EDUCATION
https://doi.org/10.1080/08841241.2024.2350390

The determinants of recommendation intention and student satisfaction in private higher institutions: Empirical evidence from Kazakhstan

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ABSTRACT

Student satisfaction and loyalty are crucial metrics for assessing the quality of education in universities. Despite their importance, these aspects have received limited attention within the private higher education sector in Kazakhstan. Our study addresses this gap by applying customer satisfaction models to identify the critical factors influencing student satisfaction at a leading Kazakhstani private university. We developed a comprehensive research framework that includes the university's institutional capabilities, the social environment, and students' perceptions of the university's ethos. A survey conducted with 129 undergraduate students revealed that institutional capabilities and students' perceptions of the university's ethos play a pivotal role in fostering satisfaction, which, in turn, enhances their likelihood to recommend the institution. Our research offers valuable insights and a strategic framework for private universities in Kazakhstan to improve their educational services, thereby increasing student satisfaction, loyalty, and ensuring the institution's long-term success.

ARTICLE HISTORY
Received 29 October 2020
Accepted 18 April 2024

KEYWORDS
student satisfaction; student loyalty; higher education quality; private higher education in Kazakhstan

1. Introduction

In the contemporary, fiercely competitive educational landscape, higher education institutions worldwide are focusing on enhancing quality and adapting their pedagogical methodologies and infrastructure to attract more students (i.e. Deakin & Wright, 2005). The growing commercialization of university services has underscored the importance of implementing student-centered approaches (Deakin & Wright, 2005; Dearing, 1997), especially within leading educational systems such as those in the United States, Australia, Canada, and the UK (Bunce et al., 2017; Tomlinson, 2017). Echoing this trend, the collection of student feedback to improve services has become more prevalent. The UK's

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National Student Survey serves as a prime example of this practice, through which universities leverage student feedback to gather insights on educational quality, thereby refining the educational experience and enhancing overall student satisfaction (Office for Students, 2022).

Since its independence from the Soviet Union in 1991, Kazakhstan's higher education sector has undergone significant transformation, distinguishing it from its past as well as leading educational systems. Through this transformation, there has been a pivotal shift towards enhancing student satisfaction and retention, reflecting practices seen in globally leading educational systems. This evolution has led Kazakhstani higher education institutions (HEIs) to proactively update their curricula, teaching methodologies, and management practices, with the dual aim of fostering an emerging national identity and responding to global market demands (Ahn et al., 2018). Nevertheless, despite such advancements, the higher education sector in Kazakhstan continues to confront distinct challenges, primarily the enduring influence of Soviet legacy. This legacy manifests through excessive government control, significantly influencing educational methodologies, structures, and institutional hierarchies, thereby posing potential threats to the sustainability of these institutions (Fimyar, 2008; OECD, 2017).

Recent government initiatives, influenced by the Soviet legacy, have implemented overly rigorous quality assurance and accreditation processes. These stringent standards, when combined with extensive government control, have led to the closure of some institutions (OECD, 2017). Despite predictions of increasing global demand for higher education through 2040 (ICEF Monitor, 2014), Kazakhstan has seen a notable decline in full-time university enrollments (Zhalil, 2017). This trend highlights the urgent need for Kazakhstani universities to devise strategies that effectively attract and retain students. In this unique context, our research is vital, aiming to identify the factors influencing student satisfaction and broader educational outcomes within Kazakhstan's higher education system.

Considerable research has been undertaken on Kazakhstan's higher education reforms and policies, including internationalization (Jumakulov et al., 2019), scholarships (Jonbekova et al., 2022), and quality assurance (Tastanbekova, 2019). However, a noticeable gap remains in understanding what drives student satisfaction within this context. Addressing this gap, our study applies the Customer Satisfaction Index (CSI) model at a leading private university to explore how various factors impact student satisfaction and loyalty within the Kazakhstani context, which are crucial for institutional sustainability (Santini et al., 2017; Tight, 2019; Zhamagatova, 2021).

While numerous studies have delved into customer satisfaction, it's important to understand that the determinants of satisfaction vary significantly across markets (Santini et al., 2017; Tight, 2019). Specifically, the unique needs of students, distinct from those of typical service sector customers, necessitate an in-depth examination of these factors within the higher education context. Although such investigations have been conducted in Western countries, the critical determinants have not been adequately addressed by Kazakhstani higher education institutions (Zhamagatova, 2021). Considering the context-specific nature of education and the challenge of generalizing findings across countries (Ball, 1998; Meyer et al., 1997; Steiner-Khamsi, 2004), our pioneering study of the Kazakhstani higher education sector from a student-centered perspective is both significant and timely.

The theoretical contribution of our research is its application of the CSI model to the unique challenges of Kazakhstani higher education, offering a refined understanding of the factors influencing student satisfaction in a transitioning educational landscape. This study not only addresses a vital gap in the literature but also provides insights into how post-Soviet educational institutions can meet modern educational demands and expectations.

Practically, our results provide a strategic roadmap for private universities in Kazakhstan – and, by extension, Central Asia – to enhance student satisfaction and loyalty. Considering the shared historical and socio-economic backdrop of the region (Batsaikhan & Dabrowski, 2017), our findings are invaluable for strategic planning and resource allocation, emphasizing the critical role of a student-centered approach in improving educational quality and ensuring long-term sustainability amid challenges like dependency on non-governmental funding (Sagintayeva & Kairat Kurakbayev, 2015) and increasing regulatory pressures (Bayetova & Robertson, 2019; OECD, 2017), especially in light of the significant reduction in private universities from 180 in 2001 to 92 in 2020 (Bayetova & Robertson, 2019).

In conclusion, our study makes crucial theoretical and practical contributions, underscoring the significance of student satisfaction and loyalty for the sustainability of higher education institutions, especially within Kazakhstan's evolving educational landscape.

2. Literature review

2.1. Contextualizing student satisfaction in Kazakhstani higher education

Our research integrates the CSI framework to develop a comprehensive model that explores student satisfaction within the distinctive context of Kazakhstan's higher education. Recognizing that direct adaptations of insights from Western higher educational models may not fully align with the unique characteristics of Kazakhstan, we examine the country's specific educational landscape prior to detailing our research model.

Kazakhstan's education sector has undergone significant changes, deeply influenced by the country's rich socio-cultural and historical backdrop since its independence in 1991. These changes include comprehensive infrastructural updates and fundamental shifts in the educational framework, steering clear of Soviet-era practices (Mehta et al., 2020; Sarmurzin et al., 2021). Initially, the transformation was heavily supported by substantial government investment aimed at enhancing the higher education landscape. More recently, however, there has been an increase in government oversight concerning quality assurance and accreditation processes. This heightened regulation has led to a reduction in the number of higher education institutions by nearly a third from 2005 to 2020 (World Education Services, 2021). Such evolving dynamics have significantly influenced student expectations and standards for higher education in Kazakhstan, highlighting the importance of delving deeper into these changes.

Kazakhstan's higher education system has shown a marked shift towards internationalization, evidenced by expanding collaborations with foreign universities, faculty exchanges, and the establishment of global academic partnerships (Jumakulov et al., 2019). These developments are part of Kazakhstan's broader modernization initiatives across different sectors, indicating that students' expectations and standards for higher

education may be progressively aligning with those found in Western educational systems.

The country's educational demographic is characterized by a remarkable diversity encompassing more than 130 nationalities and 100 ethnic groups. Kazakhs, making up 63% of the population, and Russians, at 23.7%, represent the majority (Afzal Tajik et al., 2022). This unique composition, sharing both ethnic, geographic, and socio-economic similarities and differences, accentuates the need for custom-tailored educational strategies. Such strategies must accommodate the wide spectrum of needs and preferences arising from this diverse student body.

Amidst this backdrop, understanding the factors that drive student satisfaction and loyalty becomes crucial for the sustainability of academic institutions (Zhamagatova, 2021). Despite the trend towards student-centered models in leading educational systems (Nadirova, 2018), there is a notable gap in the literature regarding the specific determinants of student satisfaction in Kazakhstan.'

To bridge this gap, our research applies the CSI model, an established cause-and-effect framework that captures the relationships between determinants and satisfaction across various industries (Anderson et al., 1994; Fornell et al., 2006; Serenko, 2011; Temizer & Turkyilmaz, 2012). This study seeks to confirm whether this recognized framework is relevant in Kazakhstan's educational landscape. Drawing on seminal works that highlight the importance of perceived service quality and individual expectations (Athiyaman, 1997; Elliott & Healy, 2001; Santini et al., 2017), our investigation integrates institutional capabilities, the student social environment, and their congruence with university philosophy. Consistent with the approach in existing literature, such as demonstrated by Kara et al. (2005), our study also examines both intangible and tangible aspects to assess service quality. Specifically, 'soft power' is characterized by intangible aspects such as academic curricula, faculty quality, and education quality, whereas 'hard power' encompasses tangible aspects like campus location, size, and the aesthetic and functional qualities of facilities. Our model employs 'student recommendation intention' as an indicator of loyalty, based on the premise that satisfaction directly influences positive word-of-mouth, thereby enhancing an institution's reputation (Perin et al., 2012; Webb & Jagun, 1997; Wilkins & Melodena, 2013).

Having outlined the dynamic educational landscape of Kazakhstan, we shift our attention to identifying and examining the potential determinants of student satisfaction unique to this setting. In the following section, we will delve into these factors comprehensively and develop our hypotheses, drawing upon the insights we have collected.

2.2. Student satisfaction with higher education services

The concept of student satisfaction in higher education continues to be widely debated, lacking a universally accepted definition and resulting in diverse interpretations (Al-Sheeb et al., 2018; Aldridge & Rowley, 1998; Khosravi et al., 2013; Kotler & Clarke, 1987). Al-Sheeb et al. (2018) conceptualize it as a mental state derived from evaluating one's educational experiences, suggesting satisfaction occurs when these experiences meet or exceed expectations. Kotler and Clarke (1987) describe satisfaction as the psychological state achieved when expectations are met by performance. Aldridge and Rowley (1998), from another perspective, split satisfaction into two areas: student personal fulfillment

and the assessment of institution and teaching effectiveness, urging a deeper reflection on pedagogy.

Khosravi et al. (2013) equate student satisfaction to customer satisfaction, suggesting that the success of educational institutions can be measured by the level of satisfaction among their students. Echoing this sentiment, Coskun (2014) highlights the growing competitive nature of higher education, positioning students as critical stakeholders in both public and private institutions (Hartley et al., 2016). Thus, fostering student satisfaction is pivotal for an institution's sustained success and longevity. Similarly, Obukhova et al. (2015) draw parallels between student and customer satisfaction, characterizing it as a transient state based on the comparison of immediate experiences with provided services. The consensus is that true satisfaction is achieved when educational institutions exceed students' expectations (Lee & Tai, 2008). Broadening this perspective, Yeleussov et al. (2015) call for a holistic evaluation of universities that consider students' overall attitudes and specific metrics of satisfaction.

Grounded in this extensive review, our study amalgamates the definitions offered by Aldridge and Rowley (1998) and Kotler and Clarke (1987) to articulate student satisfaction. We incorporate Aldridge and Rowley's differentiation between academic and overall satisfaction. Concurrently, echoing Kotler and Clarke, we perceive students as 'consumers' within the educational landscape, holding institutions accountable for catering to both their academic and experiential needs. We contend that an effective evaluation of student satisfaction mandates a bifocal approach, emphasizing both institutional offerings and individual student experiences.

2.3. Institutional factors and student satisfaction

In the realm of higher education, institutional factors significantly influence student satisfaction, covering aspects such as peers, faculty, staff, college administrators, and the overall learning environment (de Lourdes Machado et al., 2011; Gray & DiLoreto, 2020; Gruber et al., 2010; Stukalina, 2014). For instance, positive interactions with educators are a key factor in enhancing student satisfaction (de Lourdes Machado et al., 2011). Teaching and learning practices that reflect real-life situations also foster better peer support and interaction (Gray & DiLoreto, 2020). They found that cooperative work among students bolsters their engagement in learning activities and interest in courses. Moreover, encouraging connections between students at both individual and academic levels promotes deeper involvement in assignments and class discussions, thereby boosting satisfaction.

Faculty involvement is pivotal in educating and engaging students in on-campus activities. Their encouragement significantly facilitates students' participation in both curricular and co-curricular activities, thereby enriching their overall experience and satisfaction through improved learning performance (Stoner & Fincham, 2012). Gruber et al. (2010) highlight the critical role of professors' effective teaching attributes, including promoting teamwork, employing diverse teaching methods, interacting effectively, demonstrating friendliness, and using humor, in cultivating strong student-professor relationships and boosting student satisfaction. Additionally, educators' clear communication regarding expectations, task details, due dates, evaluation criteria, and the benefits of activities further enhances student satisfaction (Gray & DiLoreto, 2020). In the consistent line with this research stream,

Darawong and Sandmaung (2019) found that faculty and staff responsiveness and empathy, coupled with the physical campus environment, are significant determinants of student satisfaction in international programs in Thailand. Kashif and Cheewakrakokbit (2018) support these findings, emphasizing the crucial roles of faculty and administration in satisfying the particular needs of international students. Both studies underline the importance of prompt feedback on classes and administrative issues for international students, highlighting the role of clear communication in navigating potential language barriers.

Saif (2020) highlights the vital role of a high-quality learning environment and skillful administration in enhancing student satisfaction. This includes the provision of modern facilities, effective security, comprehensive library resources, and recreational areas. Furthermore, ensuring students have access to essential learning materials, benefit from quality instruction, and are supported by a competent and sufficient staff is imperative for fostering positive educational experiences. Complementing this, Stukalina (2014) identifies key determinants, like the instructional, psychological, physical and technological, and executive environments as pivotal in forecasting satisfaction and motivation within a Latvian university context. Similarly, Snopce and Alija (2018), through a case study at South East European University in Macedonia, stress the critical role of teaching quality and nurturing supportive social climates in fostering student satisfaction and motivation within educational contexts. Dhaqane and Afrah (2016) underscore the correlation between satisfaction and university facilities, administrative services, and quality of education.

In our examination of institutional factors that influence student satisfaction, we introduce a refined distinction between 'hard' and 'soft' powers within the higher education context. This categorization simplifies and organizes our comprehensive research model that integrates a wide range of variables identified in prior research, facilitating a holistic analysis. Drawing from Nye's (1990) political theory and parallel to Kara et al. (2005)'s service quality exploration, we distinguish between tangible (hard power) and intangible (soft power) attributes of universities. In this context, 'Hard power' refers to the physical and tangible aspects of a university, such as location, size, and infrastructure, while 'soft power' consists of intangible elements, including faculty expertise, the quality of academic programs, and the dynamics of student interactions and administrative support. This conceptual differentiation lays the groundwork for our hypotheses, focusing on the impact of hard and soft power on student satisfaction and academic performance.

Building on this framework, we hypothesize the following:

H1a. The university's soft power will positively influence students' satisfaction.

H1b. The university's soft power will positively impact students' academic performance.

H2a. The university's hard power will positively influence students' satisfaction.

H2b. The university's hard power will positively impact students' academic performance.

2.4. Students' personal factors and student satisfaction

Delving into personal factors that extend beyond direct academic influences, our analysis uncovers a layered interaction between individual perceptions, emotions, values, and

educational experiences concerning student satisfaction. Sharif and Kassim (2012) highlight the significance of non-academic service quality, revealing that satisfaction levels among students and faculty increase when these services meet expectations, fostering loyalty to the institutions. In a similar vein, Siming et al. (2015) demonstrate that university facilities' quality and faculty and administrative support significantly impact students' happiness, a personal sentiment integral to institutional satisfaction. Cownie (2017) emphasizes the role of gratitude in student satisfaction, identifying four gratitude sources: supportive behaviors by educators and peers, a nurturing environment, faculty and staff's perceived efforts, and a vibrant, interactive learning atmosphere, highlighting the essential role of non-academic support and a positive, interactive learning setting in elevating student satisfaction.

Moosmayer and Siems (2012) explore the relationship between values-oriented education and student satisfaction, discovering in their empirical study at a German university that business students greatly value teachings centered on social responsibility and ethical issues. Their findings suggest such values-related education significantly boosts student satisfaction, highlighting the importance of aligning educational content with ethical norms and societal responsibilities.

Reflecting on previous discussions, a recurring insight is that universities that align their offerings with students' values not only enhance satisfaction but also stimulate academic motivation. This realization emphasizes the need for institutions to cultivate an environment that mirrors the philosophical values of their student body, catering to students' diverse needs and expectations.

Building on these reflections, we posit the following hypotheses:

H3a: A congruence between individual students' personal perspectives and the university's philosophy will positively influence students' satisfaction.

H3b: A congruence between individual students' personal perspectives and the university's philosophy will positively influence students' academic performance.

2.5. Students' social environment and student satisfaction

The social environment in which students find themselves, particularly interactions with peers, significantly contributes to their academic life, promoting learning opportunities (Brown, 1990; Parker & Asher, 1987). Peer influence is profound, affecting everything from daily choices to ethical standards (Ryan, 2000). Students who are committed to learning often build relationships with peers who share similar educational goals (Brouwer et al., 2022). This reciprocal exchange of learning interests and friendships projects the direct impact of social interactions on academic outcomes and satisfaction, emphasizing the pivotal role of peer relationships in enhancing both academic performance and personal growth.

Recognizing the importance of these social interactions, we propose the following hypotheses:

H4a. Social interaction with classmates will positively influence students' satisfaction.

H4b. Social interaction with classmates will positively influence students' academic performance.

2.6. Students' academic performance, student satisfaction, and recommendation intention

The link between academic performance and student satisfaction is a significant facet of the educational experience, with academic outcomes playing a vital role in fostering satisfaction (Clemes et al., 2008; Dhaqane & Afrah, 2016). Research indicates that enhancing the quality of assessment, feedback, and overall service delivery positively influences student loyalty and the propensity to recommend the institution (Santini et al., 2017). Moreover, the course experience, alongside satisfaction and loyalty, emerges as a critical determinant in students' intentions to recommend and re-enroll, especially in a developing country marked by economic challenges (Rehman et al., 2022).

Hence, we formulate the following hypothesis:

H5: Academic performance will positively influence students' satisfaction.

Student satisfaction is crucial in fostering loyalty within the educational context (Webb & Jagun, 1997). The dynamics of student trust, commitment, and perceived service quality significantly impact loyalty in the educational setting, indicating that trust and commitment enhance each other, and that the perceived quality of an institution indirectly fosters loyalty (Perin et al., 2012). Additionally, loyalty is known to encourage favorable word-of-mouth recommendations during and after the educational experience (Wilkins & Melodena, 2013). Similar to loyal customers in service sectors, satisfied and loyal students are more inclined to share positive feedback and recommendations about their institution (Clemes et al., 2008; Wilkins & Melodena, 2013). This understanding acknowledges a positive link between satisfaction and loyalty and their collective influence on recommendation intentions.

Accordingly, we propose the following hypotheses:

H6a: Student satisfaction will positively influence students' recommendation intention.

H6b: Academic performance will positively influence students' recommendation intention.

3. Methodology

3.1. Participants and sampling

All participants in this study were recruited from a private university in Kazakhstan that will be referred to as 'K University'. K University is a meaningful exemplar among the private universities in Kazakhstan because it was one of the first private higher education institutions to be established after Kazakhstan gained its independence from the Soviet Union (Ahn et al., 2018). Currently recognized as the top-ranked private university in the country (UniRank, 2021), K University's practices and outcomes provide valuable benchmarks for universities in similar contexts.

To determine the required sample size for reliable statistical analysis, we applied Westland's (2010) method for calculating a-priori sample sizes in structural equation modeling, utilizing an online calculator (Soper, 2022). For an expected effect size of 0.3, at a significance level of 0.05 and a statistical power of 80%, the calculation indicated a minimum sample size of 119. Ultimately, the study included 131 full-time undergraduate students (56.8% female) from K University, with ages ranging from 17

to 25 years (M_{age} = 19.99 years, SD = 1.61 years). Data were collected between February and March 2019.

We utilized simple random sampling within the business school, considered a representative program, to select participants from the sampling frame. This approach was aimed at minimizing bias and enhancing the reliability of our findings, guaranteeing that every undergraduate student at the university had an equal chance of being selected for the study (Malhotra, 2019; Sheng & Fauzi, 2022). Such an approach facilitated the selection of a diverse sample, accurately reflecting the wide range of student perspectives on how various factors influence their satisfaction with educational services. To broaden the study's applicability, we included students from a broad spectrum of courses, from introductory to advanced levels, across multiple majors including accounting, finance, management, and marketing, and from various academic years (see Table 1).

3.2. Data collection procedure and measures

In alignment with established quantitative methodologies in student satisfaction and loyalty research (Arambewela et al., 2006; García-Rodríguez & Gutiérrez-Taño, 2021; Sheng & Fauzi, 2022), our study adopted a survey for our primary data collection, conducted as a single cross-sectional study from February to March 2019.

Prior to the survey distribution, a pilot study was conducted to refine the survey questionnaire, ensuring clarity and preventing misunderstandings among respondents. This was particularly crucial due to the translation of survey instructions and measure items from English into Russian. For the pilot study, we randomly selected K University students who mirrored our survey's target demographic. Participants completed an initial draft of the questionnaire, followed by interviews to identify any difficulties in understanding the questions. This process was iterated until all items were confirmed to be clear. The pilot study thus ensured the comprehensibility of all instructions and survey items.

Formal approval was obtained from instructors for classroom visits to distribute the self-administered survey. Participants were briefed about the study's purpose and its

Table 1. Participant demographic characteristics.

	Frequency	Percentage
Age		
Under 18	18	14.2
19	39	30.7
20	32	25.2
21	19	15.0
Above 22	19	15.0
Missing	2	1.6
Total	129	100.0
Academic Year		
1st year	11	8.5
2nd year	42	32.6
3rd year	42	32.6
4th year	30	23.3
Missing	4	3.1
Total	129	100.0
Gender		
Male	56	43.4
Female	72	56.8
Missing	1	0.8
Total	129	100.0

voluntary nature, emphasizing their right to withdraw at any time without explanation. To ensure data reliability, participants were instructed against discussing their responses while completing the questionnaire. Confidentiality and anonymity were assured via a cover letter to encourage participation, minimize non-response, and promote honest responses. For their involvement, participants were offered extra course credit.

The survey was designed to be completed in less than 10 min, with responses recorded on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) (see Table 2). To confirm the internal consistency of the measurement items adapted from existing literature, a reliability test was conducted, demonstrating statistical reliability as evidenced by Cronbach's alphas exceeding 0.7 (Nunnally, 1978). The questionnaire consisted of 25 items designed to assess seven constructs identified in our proposed research model (see Figure 1). Participants were asked to evaluate key aspects of the university's educational services they had experienced so far. These aspects included the university's soft power (USP) with four items (Snopce & Alija, 2018; $M = 5.17$, $SD = 1.07$), hard power (UHP) with four items (Snopce & Alija, 2018; $M = 6.00$, $SD = .86$), and the students' social

Table 2. Standardized Confirmatory Factor Loadings, Composite Reliability (CR), and Average Variance Extracted (AVE).

Variable	Factor Loadings	AVE	CR
Recommendation Intention (WOM) (Cronbach α = .943)			
I intend to talk about K University with other people.	0.927	0.895	0.945
I intend to recommend K University to others.	0.965		
Satisfaction toward the University (SAT) (Cronbach α = .884)			
I am satisfied to be studying at K University.	0.846	0.728	0.889
K University meets the expectations that I had before enrolling.	0.882		
In general, I like K University.	0.831		
Academic Performance (AP) (Cronbach α = .824)			
My level of academic achievement is good.	0.811	0.796	0.796
I am satisfied with the results I have achieved.	0.892		
University's Soft Power (USP) (Cronbach α = .924)			
I enjoy the academic programs.	0.841	0.756	0.925
I appreciate my professors' expertise.	0.825		
I appreciate the quality of the undergraduate programs.	0.907		
I appreciate the quality of the education.	0.901		
University's Hard Power (UHP) (Cronbach α = .783)			
I like the location of the campus.	0.658	0.495	0.797
I like the size of the campus.	0.766		
I like the facilities on campus.	0.707		
I like the landscaping on campus.	0.680		
Student's Perception about University's Philosophy (SPUP) (Cronbach α = .888)			
I believe that we manifest individualized care in the care we show for each member of the K University community.	0.818	0.669	0.890
I believe that K University is inclusive.	0.794		
I believe that K University is pragmatic, grounding the education it provides in the realities of everyday life.	0.798		
Through its curricula, programs and services, the university offers students practical solutions for their higher education, career advancement, and personal growth needs.	0.859		
Students' Social Environment (SSE) (Cronbach α = .922)			
My classmates are friendly.	0.810	0.668	0.923
My classmates are smart and clever.	0.743		
My classmates are considerate.	0.780		
Time spent with classmates is pleasant.	0.827		
My classmates are creative; they inspire me.	0.890		
My classmates are interesting.	0.845		

Note: Answers were based on a 7-point Likert scale where 1 = strongly disagree and 7 = strongly agree.

environment (SSE) with six items (Patrick et al., 2007; $M = 5.03$, $SD = 1.11$). It also assessed students' personal perspectives towards the university's philosophy (PP) with four items (Matteo et al., 2013; $M = 5.39$, $SD = 1.13$). Furthermore, the questionnaire investigated the outcomes of these educational services by measuring recommendation intention towards K University (WOM) with two items (Rust & Zahorik, 1993; $M = 5.67$, $SD = 1.50$), overall satisfaction with the university (SAT) using three items (Aitken, 1982; Oliver, 1993; $M = 5.32$, $SD = 1.11$), and academic performance (AP) through three items (Aitken, 1982; $M = 5.22$, $SD = 1.34$). Participants provided general demographic information, including gender and age. Upon survey completion, participants were debriefed and thanked. Out of 131 returned responses, 2 were excluded for excessive missing values (over 40%), leaving 129 responses for analysis.

4. Results

Data analysis was conducted using covariance-based structural equation modeling (SEM) with AMOS 24.0. SEM is esteemed as a robust tool for data analysis that integrates factor analysis and path analysis, allowing for the simultaneous evaluation of both measurement and structural models (Gefen et al., 2000). Following the two-stage approach recommended by Anderson and Gerbing (1988), our analysis began with assessing the validity and reliability of the measurement model through confirmatory factor analysis (CFA). This was followed by testing the hypotheses and evaluating the overall fit of the proposed research model using the SEM technique.

4.1. Measurement model

Through testing the measurement model, we address the reliability and validity of each construct in this research by examining factor loadings, average variance extracted (AVE), and construct reliability (CR).

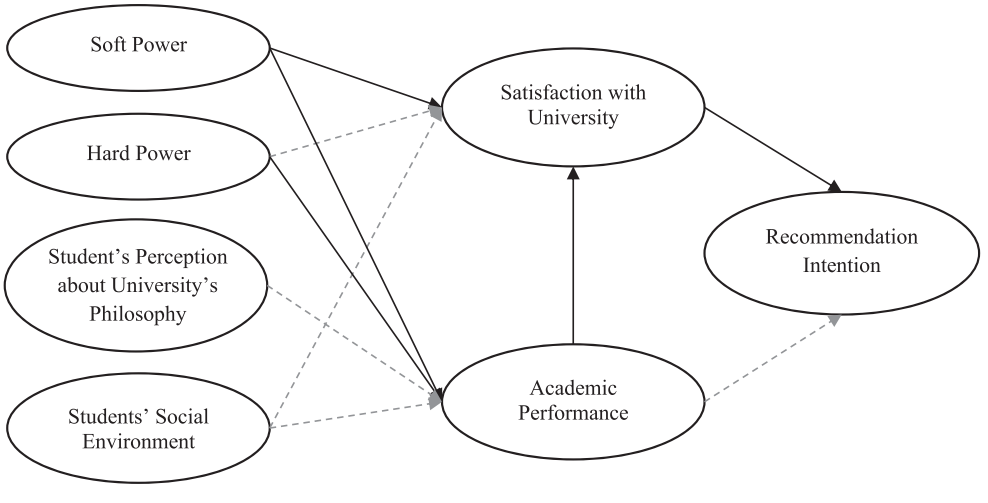

Figure 1. Research Model.

Note: Solid (dotted) lines represent the (not) supported hypotheses.

To confirm the validity of each item, we adhered to the guideline that all standardized factor loadings should be statistically significant and exceed 0.5, a widely recognized benchmark for acceptable item loadings (Hair et al., 1998). As illustrated in Table 2, factor loadings for all constructs exceeded this threshold and were statistically significant ($p < .05$), confirming the appropriateness of the standardized factor loadings across all constructs.

To assess convergent validity, the established criteria require AVE values to exceed 0.5 and CR values to be above 0.7 (Hair et al., 1998). The results, as shown in Table 2, indicate that both AVE and CR values for all constructs not only met but also surpassed these thresholds, thereby confirming the convergent validity of all constructs.

Finally, to address discriminant validity, we applied two established criteria: the Fornell-Larcker criterion and the heterotrait-monotrait (HTMT) ratio. According to the Fornell-Larcker criterion, the square roots of AVEs for each construct must exceed the inter-scale correlations (Chin, 1998; Fornell & Larcker, 1981). As depicted in Table 3, the square roots of the AVEs on the diagonal are greater than the corresponding off-diagonal correlations below the diagonal, indicating that for reflective constructs like WOM (0.887) and satisfaction (0.847), the square roots of AVEs surpass the inter- scale correlations. Moreover, HTMT ratios, presented above the diagonal, fall below the threshold of 0.85 (Ab Hamid et al., 2017; Henseler et al., 2015; Kline, 2015) or 0.9 (Ab Hamid et al., 2017; Gold et al., 2001). Hence, discriminant validity for all constructs is confirmed.

In summary, as shown in Table 2 and Table 3, our evaluation of construct reliability, convergent validity, and discriminant validity yields satisfactory results. Specifically, the standardized factor loadings, AVEs, and CRs of all constructs meet the recommended guidelines. Consequently, we can conclude that the measurement model is reliable and valid to test the structural model. In addition, the results of CFA indicate that the overall measurement model fit is considerably good. Concretely, the following goodness of fit indices exceeded their commonly accepted thresholds: χ^2 (254) = 363.341, χ^2/df = 1.430, TLI = .948; CFI = .956, RMSEA = .058 (Hu & Bentler, 1999; McDonald & Ho, 2002).

4.2. Structural model

Overall fit: The SEM technique was used to assess the overall fit of the proposed research model. The following goodness of fit indices revealed that the research model fits the data reasonably well: χ^2 (282) = 427.411, χ^2/df = 1.516, TLI = .932; CFI = .941, RMSEA = .063 (Hu & Bentler, 1999; McDonald & Ho, 2002).

Table 3. Convergent and Discriminant Validities: Fornell-Larcker Criterion and Heterotrait-Monotrait (HTMT) Ratio

	WOM	SAT	AP	USP	UHP	SPUP	SSE
WOM	*0.946*	0.802	0.475	0.695	0.537	0.769	0.593
SAT	0.823**	*0.853*	0.607	0.852	0.440	0.799	0.576
AP	0.499**	0.618**	*0.892*	0.626	0.481	0.530	0.422
USP	0.702**	0.843**	0.621**	*0.869*	0.446	0.821	0.542
UHP	0.518**	0.442**	0.479**	0.424**	*0.704*	0.610	0.389
SPUP	0.785**	0.794**	0.527**	0.816**	0.603**	*0.818*	0.695
SSE	0.587**	0.556**	0.399**	0.517**	0.375*	0.675**	*0.817*

Note: Numbers on the diagonal (in italics) denote the square roots of the AVE. The Fornell-Larcker criteria (inter-scale correlations) are below the diagonal (*$p < 0.5$; **$p < 0.01$) and the HTMT ratios are above the diagonal. All abbreviations are as noted in Table 2.

Hypothesis testing: The results of the structural model, including path coefficients and CRs for hypotheses H1-H6, are detailed in Table 4, illustrating the magnitude and statistical significance of the relationships among the constructs.

Hypothesis 1 explored the relationship between the university's soft power and its positive impact on students' overall satisfaction and academic performance. In line with our expectations, the results, presented in the first and second rows of Table 4, show significant positive effects, robustly supporting H1a and H1b. This indicates that enhancing the university's soft power can lead to improved student satisfaction and academic achievements.

Hypothesis 2 examined the impact of the university's hard power on students' satisfaction and academic performance. The findings, shown in the third and fourth rows of Table 4, reveals that while the university's hard power significantly boosts students' academic performance, it doesn't affect their overall satisfaction. Thus, H2b is strongly supported, but H2a is not. This indicate that the university's hard power positively contributes to academic achievements without necessarily increasing overall satisfaction.

Hypothesis 3 suggested the connection between students' personal perspectives on the university's philosophy and their overall satisfaction and academic performance. As depicted in fifth and sixth rows of Table 4, students' alignment with the university's philosophy significantly boosts satisfaction but does not affect academic performance. Thus, H3a is strongly supported, but H3b is not. This highlights the importance of value alignment in boosting student satisfaction, though it does not have a direct impact on academic performance.

Hypothesis 4 proposed that the students' social environment and interactions with classmates affects their satisfaction and academic performance. The seventh and eighth rows of Table 4 show no significant impact, leading to the rejection of H4a and H4b.

Hypothesis 5 anticipated that students' academic performance would positively affect their overall satisfaction. This relationship is validated by the data presented in the ninth row of Table 4, thereby supporting H5.

Hypothesis 6 suggested that both academic performance and overall satisfaction would have a positive impact on students' intention to recommend the university. According to the findings in the tenth and eleventh rows of Table 4, it's evident that only overall satisfaction significantly contributes to recommendation intention, supporting H6a but not H6b.

Table 4. Results of the structural model: hypothesis testing.

	Path	Path coefficient	C.R.	Results
H1a	USP → SAT	.342	2.511*	Supported
H1b	USP → AP	.699	3.619**	Supported
H2a	UHP → SAT	−.001	−.004	Not supported
H2b	UHP → AP	.533	2.440*	Supported
H3a	SPUP → SAT	.370	2.493*	Supported
H3b	SPUP → AP	−.257	−1.136	Not supported
H4a	SSE → SAT	.071	.883	Not supported
H4b	SSE → AP	.129	1.014	Not supported
H5	AP → SAT	.214	2.460*	Supported
H6a	AP → WOM	−.192	−1.503	Not supported
H6b	SAT → WOM	1.335	8.388**	Supported

Note: * $p < 0.5$; ** $p < 0.01$.
All abbreviations are as noted in Table 2.

The results of these hypothesis tests are summarized in Figure 1.

In conclusion, our findings demonstrate that the university's soft and hard power, alongside students' perceptions of the university's philosophy, significantly influence their overall satisfaction towards the university, academic performance, and recommendation intentions. Notably, soft power and value alignment emerge as key factors for satisfaction, while soft and hard power are crucial for academic performance. Moreover, academic performance impacts recommendation intention through satisfaction. These results highlight the significant, complementary roles of the identified determinants in improving student satisfaction, academic performance, and recommendation intention, enriching our understanding of the factors contributing to educational outcomes in the context of Kazakhstan's higher education.

5. General discussion

5.1. Conclusions and theoretical implications

Building on the foundational work of prior research, this study uniquely assesses the collective impact of institutional, personal, and social factors on student satisfaction and loyalty within a Kazakhstani private university setting. It distinguishes the significance of various factors in shaping satisfaction and loyalty. Notably, our findings highlighting the predominant role of the university's soft power, encompassing academic programs, faculty expertise, quality of program, and the quality of education, in boosting students' satisfaction and academic performance. Furthermore, the students' perceived value attributed to the university's hard power, including its location, size, landscaping, and campus facilities, is also underscored for its influence on academic performance, satisfaction, and the propensity to recommend the institution. These insights offer strategic guidance for private universities on optimizing resource allocation to enhance student satisfaction effectively.

This study contributes significantly to the theoretical understanding of student satisfaction and loyalty, especially within the Kazakhstani higher education context where such investigation has been previously overlooked. Although the importance of satisfaction and loyalty for student recruitment and retention is widely acknowledged (Mallika Appuhamilage & Torii, 2019; Shahsavar & Sudzina, 2017), the context-specific nature of education complicates the application of findings across different settings. The debate over the specific determinants of these outcomes remains unresolved in the literature, highlighting a gap in understanding how these factors vary across contexts or countries (Ball, 1998; Meyer et al., 1997; Santini et al., 2017; Steiner-Khamsi, 2004; Tight, 2019). By delving into this relatively unexplored area, our study extends the current body of knowledge, offering new insights into the dynamics of student satisfaction and its implications within the Kazakhstani higher education landscape.

Crucially, this research introduces a comprehensive model to evaluate the collective impact of institutional and personal factors, alongside social dynamics, on student satisfaction and recommendation intention within Kazakhstani private universities. Diverging from previous studies (de Lourdes Machado et al., 2011; Gray & DiLoreto, 2020; Gruber et al., 2010; Stukalina, 2014), this approach allows for a detailed assessment of the relative importance of each factor, yielding a more holistic understanding. By classifying university attributes into soft and hard power and assessing their roles and relative significance, we

provide a clearer and more compact framework for understanding effective factors in this context. This classification simplifies our research model, making it more efficient for capturing the essence of the educational experience within the Kazakhstani higher education sector. Integrating these elements within the CSI framework, the study not only proposes a nuanced model for analyzing student satisfaction but also highlights the unique impact of these factors within the specific setting of Kazakhstani private universities.

5.2. Managerial implications

Kazakhstani private universities find themselves in a challenging environment, facing intense market pressures such as extensive government regulation in quality assurance and accreditation processes, which has resulted in a decreased number of institutions (OECD, 2017), and demographic shifts that have diminished student enrollment (Zhalil, 2017). In this competitive environment, the significance of student satisfaction is critical, particularly as Kazakhstani private universities do not benefit from government funding (Sagintayeva & Kairat Kurakbayev, 2015). Without governmental financial assistance, they must heavily rely on revenue generated from their own educational programs to ensure sustainability. Thus, enhancing student satisfaction is essential for improving both competitiveness and sustainability. Our research offers valuable insights and a strategic framework, particularly in utilizing university capabilities and addressing student and social factors, to elevate satisfaction and encourage recommendation intentions. Consequently, our study's findings are especially relevant and beneficial for the advancement of the private sector in Kazakhstan's higher education system.

Furthermore, the insights from our research extend beyond Kazakhstan, holding significance for other Central Asian countries within the former Soviet Union. These nations share socio-economic factors and historical transitions, although they are at different stages of development (Batsaikhan & Dabrowski, 2017). Given these shared backgrounds, the advancements made in Kazakhstan's higher education system could provide a blueprint for neighboring countries. The university central to this study exemplifies such leadership, demonstrating pioneering practices and strategies beneficial within this region for broader application across Central Asia. In this evolving landscape, Kazakhstan's approach to educational reform positions it as a role model, potentially guiding other Central Asian nations in their educational advancements.

Our study provides actionable insights for university administrators on optimizing resource allocation to significantly improve the quality of educational services. It highlights the importance of enriching academic programs, elevating faculty qualifications, and streamlining administrative services as fundamental steps for boosting student satisfaction and positively impacting their perceptions of academic success. Additionally, the study emphasizes that investments in physical infrastructure and campus facilities significantly improve students' perceptions of their academic achievements, a factor intimately connected to heightened overall satisfaction. This underscores a direct link between tangible campus enhancements and the academic self-concept of students, further contributing to a more fulfilling university experience.

To maintain competitiveness, universities in Kazakhstan's higher education sector find word of mouth to be an effective marketing strategy, given the difficulties associated with traditional advertising and promotional activities in this context (Vaz & Mansori, 2013).

Our findings highlight the need for these institutions to significantly invest in enhancing both their soft and hard power. Such investments are crucial for encouraging students to recommend their university, thereby shaping its reputation and aiding in the attraction of prospective students.

5.3. Limitations and directions for future research

Despite its valuable contributions, the present study has several limitations. First, it focused on a single private university in Kazakhstan. The dynamics within private institutions can substantially differ from those in public universities (Mazumder, 2013), which typically benefit from government support and possess an established reputation based on relatively long history, thus facing fewer sustainability challenges (Hwami, 2023; Sagintayeva & Kairat Kurakbayev, 2015). Consequently, future research should expand to include a diverse range of universities, exploring the distinct factors that influence student satisfaction across various institutional types within Kazakhstan's higher education sector.

Second, the study's participants predominantly consisted of local Kazakhstani and Central Asian students, representing a relatively homogeneous group despite their varied national backgrounds due to their shared geographical region. Previous studies differentiate between local and international students, recognizing that international students often have unique experiences and priorities in accessing educational services (Darawong & Sandmaung, 2019; Kashif & Cheewakrakokbit, 2018). This distinction highlights a research opportunity to delve into the experiences of international students in Kazakhstan, which could uncover additional dimensions of student satisfaction.

Third, it's important to note that this study's data collection occurred in 2019, preceding the COVID-19 pandemic, an event that has profoundly altered the educational landscape. The pandemic has led to the emergence of new student preferences and options previously unavailable or deemed non-essential, such as flexible learning schedules offering year-round, online, and in-person classes. Additionally, there has been an increased demand for institutions with strong digital infrastructure and comprehensive career counseling services (Dennis, 2022; Mehta et al., 2020). These shifts suggest that the definitions of a university's soft and hard power need expanding to accommodate these new preferences, highlighting the necessity for further research to explore the pandemic's impact on student satisfaction and the value placed on educational services in the post-COVID era.

Acknowledgements

This article is adapted from the master's thesis of Kaisar Kairat, KIMEP University.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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