Turkey as a Popular Hub for Higher Education Learning Among Muslim Countries
Challenges and Opportunities for International Students

Şahnoza Kayadibi, Saim Kayadibi and Surayya Shoamirova

Education plays a pivotal role in fostering human capital across various domains such as science, politics, and the economy, thereby significantly affecting economic growth. Turkey (Türkiye) stands as a prominent destination for international students seeking continued higher education, yet it faces challenges and opportunities, according to prior research. Responding to these dynamics, this study constructs a research model by integrating social identity theory and contingency theory. With a deductive approach and quantitative techniques for data analysis, our research aims to explore the antecedents of institutional reputation in the Turkish higher education landscape. The population of the study is international students (N = 200,000 and n = 250) who are studying at different public higher education institutions in Türkiye. The data have been analyzed using the Smart PLS 4 program.

This investigation hypothesizes that informational influence, online learning quality, perceived value, perceived service quality, and an institution’s image exert positive and significant effects on institution reputation. However, our empirical findings challenge one of these assumptions, revealing insufficient evidence to support the assertion that online learning quality significantly influences institution image. Consequently, our study adds to the scholarly discourse by contributing empirical insights into the phenomenon within the context of Turkish higher education institutions.

Keywords: Higher education, international students, opportunities and challenges, Türkiye

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A nation’s economic development depends profoundly on education. With the production and dissemination of information, education encourages nations to adopt and transmit current technology while also providing the labor quality necessary for the development. Education creates human capital through channels such as science, politics, and economic activity (Danaci, 2020). Higher education has a large impact on economic growth. It is rightly regarded as the “engine of development in the new world economy” (Castells, 1994). However, students face challenges in continuing higher education studies. They even leave the university unwillingly because of higher fees brought on by the global financial crisis. Indeed, the Turkish government allocates an enormous amount of spending on education. Türkiye is known to be one of a few countries that offers full scholarships for international students (Aras & Mohammed, 2019). It is a popular destination due to the education system as well as cultural aspects. It is also important to mention that Türkiye is among the few countries offering free education for locals. In addition, many scholarships are offered for international students such as the Turkish government scholarship (Türkiye Burslari). Normally, scholarships cover educational fees, transportation costs, health insurance, and accommodation. The goal of the Turkish government scholarship is to make sure students take advantage of social as well as cultural opportunities while studying in Türkiye. Essentially, this study aims to investigate the antecedents of institutions’ reputations in the eyes of international students as well as significant antecedents related to the dependent variable of the study.

The constructs of this study include informational influence, online learning quality, perceived value, perceived service quality, institutional image, and institutional reputation. This research addresses the literature gap in terms of international students’ perceptions toward institution reputation. In the learning process, value and quality are becoming an integral part of higher education systems. This study investigates the factors affecting the institution’s (university) image that contributes to its reputation. Furthermore, the study develops the research model by integrating social identity theory (Tajfel & Turner, 2004) and contingency theory (Ginsberg & Venkatraman, 1985). Various studies have been conducted in the field of higher education, and there are many reviews of higher education opportunities and challenges around the globe, but this study provides empirical results on the study phenomenon in the particular context of Turkish higher education institutions.
The study has two basic goals. It attempts to understand Turkish higher education and its prospects and limitations based on a review of the previous literature. To that end, the following research question has been developed. What are the key potential opportunities and challenges faced by international students who are studying at higher education institutions in Türkiye? Second, the research investigates the relationship of variables that contribute to institutional image and its reputation based on empirical evidence. For this objective, the following research question is posed. Which factors have a positive and significant impact on institutions’ image and reputation?

TURKISH HIGHER EDUCATION

Education is a service sector of the economy that deals with students (Boksberger & Melsen, 2011). Education helps improve an individual’s contribution to economic and social growth. Marketing concepts and models are frequently used when addressing topics on higher education (Moosmayer & Siems, 2012). This research therefore develops the study model considering marketing principles and concepts in an attempt to discover the opportunities and challenges that exist in higher education institutions.

The higher education sector is confronted in many nations with a fast-evolving and diversified global market (Tomlinson, 2022; Lawrence & Hall, 2018; Sampaio et al., 2012). Higher education institutions are constantly improving and adjusting their approach to maintain long-term student loyalty in the face of rising competition on a worldwide scale (Hashim et al., 2015). From the Turkish higher education perspective continuous improvements are being implemented in terms of quality standards (Gözaçan Borahan & Ziarati, 2002). Shortcomings in the field of higher education in the last decade have included poor course quality, fewer qualified academics, and poorly qualified graduates, particularly in the field of tourism education (Okumus & Yagci, 2012). Significant improvement in the field of higher education in Türkiye has nonetheless occurred through internationalization, improved quality of education, and a growing number of universities.

It is now crucial to use social media to attract potential clients to any institution, in particular to draw students to continue their studies at a higher education institution. For instance, Melchiorre & Johnson (2017)
highlighted the role of social media marketing as it is widely used to build direct communication with potential students.

**OPPORTUNITIES AND CHALLENGES**

The global higher education industry is approaching $100 billion, with a total of 7 million foreign students worldwide. Recently, almost 300,000 international students enrolled at nearly 200 institutions (public and private universities) contributed around $1 billion to the Turkish economy (Durnali & Ayyildiz, 2023). The total number of international students studying in Türkiye has been increasing and reached 260,289, 224,053, and 185,047 respectively in the years 2022, 2021, and 2020. Türkiye is a popular place for international students to continue their higher education in a rich multicultural environment (Titrek et al., 2016) with a lower cost compared with other European and Asian countries (Rahman et al., 2017). Research grants are provided to local students as well as scholars. In addition, there are student exchange programs available based on mutual agreements between international institutions.

In their study, Roberts et al. (2010) examined the opportunities and challenges faced by international students entering higher education institutions around the world. With nearly 148,000 international students, Türkiye has become one of the countries hosting the highest number of international students (Mokrane & Halac, Hicran, 2022). The various scholarships offered by Turkish government are aimed at building cultural, social, and economic interaction at both the individual and societal levels. With these scholarship opportunities, international students are able to study for free in Türkiye. In addition, government scholarship (*Türkiye Burslari*) also pays for accommodation and travel cost. Another good thing about this scholarship is that it helps with student placement at any suitable university based on the student’s choice. The *Türkiye Burslari* program gave scholarships to a total of 3,579 students in 2021, 3,680 students in 2020, and 4,731 students in 2019 (*Türkiye Burslari*, 2023).

Furthermore, there has been considerable change and expansion in Turkish higher education over the last decade as the digital education platform Education Information Network (EBA) has been completely restructured with in-line developing technology, especially during COVID-19 period. Due to Türkiye’s advanced online education infrastructure, the implementation of online education following the country’s greatest earthquake, which occurred on February 6, 2023, was not particularly
challenging. As a result, the current emphasis on online learning presents an opportunity in terms of saving cost and time (Gumport & Chun, 1970). It has been suggested that Turkish universities may be able to compete with foreign universities that provide successful models of digital education transformation (Kuzu, 2020). However, students also face communication and interaction issues with the digitalization of education (Bilgic & Tuzun, 2020).

Challenges mentioned by Aypay et al. (2012) included quality, competitiveness, and effectiveness issues that need to be addressed in the education field. This research should be useful to find in-depth information concerning those issues in Turkish higher education institutions. It is noteworthy that despite these challenges, the number of Turkish universities increased from 19 in 1980 (Özolu et al., 2016) to 129 in 2021 (Kaya & Onursal-Beşgül, 2023).

Furthermore, Özolu et al. (2016) mentioned that the challenges of public higher education in Türkiye include administrative, financial, academic, and social issues. Normally, these challenges are faced by any newly established public university because of the lack of experience, but recent studies show that language and communication obstacles are significant challenges for international students with limited language skills, both in academic and social settings (Özoğlu et al., 2015). This actually decreases the proficiency in understanding study courses. Considering the study's background, the remainder of this paper introduces a theoretical framework and research model that helps to investigate specifically the Turkish higher education image in the eyes of international students.

THEORETICAL BACKGROUND AND CONCEPTUAL MODEL

To create a powerful, yet simple, contingency theory framework (Borahan & Ziarati, 2002), it is necessary to identify which elements have a broad impact on strategic decisions and which also have performance consequences. Considering contingency theory research done by Ginsberg and Venkatraman (1985), as well as social identity theory (Tajfel & Turner, 2004), the following hypothesized research model was developed for higher education institutions (See Figure 1). The model has three aspects that include input (informational influence), process (online learning, perceived value, perceived service quality, and institution image), and output (institution reputation). Notably, highly impacted journals significantly
contribute to the research model development, especially, *the Academy of Management Review, Review of Educational Research,* and *International Journal of Emerging Markets.* The research model in this study appears to increase researchers’ knowledge by providing statistical analysis and results.

**Summary of Hypothesis:**

- **H1 a, b, c:** The higher value of informational influence has a positive and significant impact on online learning quality, perceived value, and perceived service quality.
- **H2:** Online learning quality has a positive and significant impact on perceived value.
- **H3:** Perceived service quality has a positive and significant impact on perceived value.
- **H4:** Perceived value has a positive and significant impact on the institution’s image.
- **H5:** Online learning quality has a positive and significant impact on the institution’s image.
- **H6:** Perceived service quality has a positive and significant impact on the institution’s image.
- **H7:** Institution image has a positive and significant impact on reputation.

**Informational Influence**

Some sources of information include friends’ opinions, advice from families, websites, reports, or someone’s knowledge (Wu, 2011). Similarly, it is mentioned that the reliability of information sources is vital when it comes to international education services (Rashid & Mustafa, 2022; Pimpa, 2003). Furthermore, informational influence in the present study
is defined as the propensity to get information from others as a fact. That can happen either by looking at information from proficient people or by individuals who make conclusions based on what they observe (Bearden et al., 1989). In this study, information is related to the clear and definite messages received by students either directly or indirectly by the university before enrolment (Sultan & Wong, 2014). Based on the review of previous research, there are two types of influence that include informative influence and normative influence (Cho & Chan, 2018; Shukor et al., 2017; Goodwin, et al., 2013; Khare, 2012; Kestler, 2010; Roberts, et al, 2008; Kropp, et al., 1999; Turner, et al., 1989), as it is simply described as distinct motivation to explain conforming behaviors (Goodwin et al., 2013). Besides, people are influenced by information received to the extent they consider it as meaningful evidence about reality (Sussman & Siegal, 2003; Price et al., 1989). Essentially, normative influence is defined as conformity based on one’s aspiration to accomplish others’ expectations and gain acceptance (Schwartz, 1977). Normative influence can utilize other people’s recommendations that guide them in terms of product or brand (Aziz, 2016). Therefore, normative influence is related to the desire to be accepted by the group (Cho & Chan, 2018; Williamson, et al., 2013; Leppamaki & Lahlou, 2004).

This study investigates how students are influenced by information they receive through social media related to higher education institutions. Interestingly, Sussman and Siegal (2003) briefly discussed theoretical aspects of informational influence for organizational context. According to Cappellen, (2011), informative influence is conformity under acceptance of evidence concerning the reality that has been provided by others. Suki et al. (2016) discussed that informational influences are the motivational tool that can influence students’ behavior toward higher education institution engagement through social media. Furthermore, research on the informative influence has been done in comprehensive areas such as brand image (Aziz, 2016), corporate volunteering (Hu et al., 2016), online review sites (Cho & Chan, 2018), fashion (Khare, 2012; Kestler, 2010), knowledge transfer through informational influence (Sussman & Siegal, 2003), consumer behavior (Roberts et al., 2008; Kropp et al., 1999), social norms (Lede et al., 2019), altruism (Schwartz, 1977), philanthropic foundations’ decision-making (Harrow & Jung, 2015), and electronic word of mouth (Shih et al., 2013). Information received from personal sources influences one’s behavior (Suki et al., 2016).
There is a lack of research on informational influence in the higher education context. Therefore, this study aims to further investigate the informational influence effect on other variables within the higher education context. Information and service quality have a positive relationship in the field of higher education systems (Sultan & Wong, 2013). Therefore, this study hypothesizes as follows.

H1 a, b, c: The higher value of informational influence has a positive and significant impact on online learning quality, perceived value, and perceived service quality.

Online Learning Quality

Globalization and technological advancements reinforce the online learning system for education. Online learning is gaining attention in many fields, especially in higher education because of advantages in terms of lower study cost and time savings (Khan et al., 2023). It is easier to administer education through the internet and online learning system provides equitable access to learning as well as developing professionals to meet employment market research (Menon & Suresh, 2021).

Shehzadi et al. (2021) mentioned that the digital revolution took place in the higher education system as information is the most important aspect of online learning. In the present study, online learning quality is defined as the overall perception of students toward online learning and teaching activities (Khan et al., 2023). Nevertheless, there is a higher rate of withdrawal from online learning compared with traditional learning because of quality issues (Udo et al., 2011). Therefore, identifying specific quality issues would be helpful to overcome online learning dropouts. Online learning with poor quality leads to dropouts and reduces the reputation of the institution.

Similarly, Khan et al. (2023) highlighted the significance of quality in education for online learning and it needs further investigation. Kaushal et al. (2021) also encourage discovering the potential influence of online learning concerning the institution’s reputation. In addition, broader demographics can be reached in a competitive market (Kilburn et al., 2016). Online learning saves time and expenses for students. This study adds value to the importance of online learning quality in a technologically advancing world. Additionally, it is important to mention that online learning quality items for this study will be tested through current international students’ online higher education learning systems in Türkiye. Even though there is increasing demand for online learning in
the higher education field, however, the issue arises from a quality perspective as argued by Udo et al. (2011). Thus, this research hypothesizes as follows:

H2: Online learning quality has a positive and significant impact on perceived value.
H5: Online learning quality has a positive and significant impact on the institution’s image.

Perceived Service Quality

Sultan and Wong (2013) mentioned three aspects of perceived service quality in terms of technical, functional, and image which could go back to the late 1970s. The dimension of perceived service quality in the context of higher education is investigated in this study due to its suitability to the research model. In services marketing, service quality is known as an important factor (Ali et al., 2016) and its importance should not be ignored, especially in the field of higher education institutions (Sultan & Wong, 2012). Primarily, quality is defined in American society by a product’s or service’s features and qualities that have an impact on how well it can meet specific needs. Previous studies have developed some instruments to test quality concepts and one of those the well-known SERVQUAL. This instrument helps make comparisons between perception and expectation (Ali et al., 2016). From a higher education perspective, perceived service quality is operationalized as the discrepancy between what students expect from the service and how they perceive it actually being provided (Kaushal et al., 2021).

Previous studies have investigated service quality dimensions in the higher education context (Kaushal et al., 2021). However, this study aims to study perceived service quality from the view of international students who are studying at various universities in Türkiye. Achieving better service quality should be the main objective of any higher education institution (Sultan & Wong, 2012). Conversely, research by Rahman et al. (2017) showed the relationship between service quality and destination for education. In addition, the authors discussed that destination plays a vital role in gaining expected knowledge, and that international students are concerned with service quality. A study done by Thornhill et al. (1996), argued the importance of quality in all aspects of education.

H3: Perceived service quality has a positive and significant impact on perceived value.
H6: Perceived service quality has a positive and significant impact on the institution’s image.
Perceived Value

Value is not a new concept in the marketing field; it started to become popular in the 1990s (Eggert & Ulaga, 2002) and since that time perceived value in marketing has been of enduring importance into the 21st century (Boksberger & Melsen, 2011). In the context of education services, perceived value refers to a student’s overall evaluation of service as determined by a comparison between what students anticipate and what they receive. Furthermore, there is a consistent relationship between perceived value and service quality. Unquestionably, consumers compare the differences between their expenses in terms of financial/nonfinancial aspects and factors such as quality and convenience (Kilburn et al., 2016).

Perceived value plays an important role in building institutional image in a vigorously competitive environment. There has been increasing competition among higher education institutions around the world. Due to the competitive environment, institutions need to consider perceived value as an important factor (Alves, 2011). Students’ perceived value is the evaluation of institutional benefits received against the amount spent for it. In other words, students’ perceived value of the institution is based on perceiving what is received and paid for it (Yang, 2021; Lai & Lung, 2012).

Furthermore, the choice to participate in an overseas experience depends on the potential student’s assessment of perceived value (Relyea et al., 2008). That means perceived value is a considerable factor for students who make educational choices to study abroad. In the study of Stone and Major (2014), the research investigated students’ perceived value toward higher education institutions.

Addressing concerns related to higher education institutions’ students’ perception of perceived value has gained great interest from researchers (Moosmayer & Siems, 2012). For instance, students’ perceived value has been studied and results have shown the importance of this construct in the field of higher education (Sampaio et al., 2012). Consequently, value conflicts have been studied from a teaching perspective and it is mentioned that issues related to value are challenging for all individuals involved in higher education (Skelton, 2012). Remarkably, a recent study by Tomlinson (2022) questioned the value from the aspects of managing, measuring, and communicating the institution’s value to the public. In addition, the research study provides a more comprehensive understanding of the advantages of higher education for people and it also demonstrates its impact in numerous spheres of alumni (Tomlinson, 2022).
Some themes appear to be consistent across the literature, including that value is an integral part of marketing (Ledden et al., 2007) and perceived value is predicted through service quality (Dlačić et al., 2013). Despite the previous studies about students’ perceived value, there is a need for validation of this construct in the field of higher education institutions (Alves, 2011) because there are controversial scholarly discussions concerning perceived value concepts (Boksberger & Melsen, 2011). Similarly, Alves (2011) stated that perceived value relationships with other constructs are not well-researched. Therefore, this study investigates the students’ perceived value to find out its significance level and the relational effect in the context of higher education. Therefore, the following hypothesis is developed.

H4: Perceived value has a positive and significant impact on the institution’s image.

Institution Image

The concept of the image goes beyond the corporate scope; it also encompasses nonprofit institutions including higher education institutions. However, the definition of image is similar in both areas and it is defined as the overall beliefs of individuals toward the institution (Kaushal et al., 2021; Palacio et al., 2002) and it is attained through creating positive thoughts in the customer mind (Shehzadi et al., 2021).

From the perspective of higher education, the image of an institution is referred to as the individuals’ overall beliefs concerning the university (Kaushal et al., 2021), in other words, it is building an impression in the minds of people about the organization (De Leaniz & Del Bosque Rodríguez, 2016). In addition, researchers (Kaushal et al., 2021) also highlighted the effect of a positive image on a long-term relationship with customers. Customers in this study are international students who are studying in higher education institutions. Therefore, keeping a positive image would help gain a competitive advantage over rival institutions (Palacio et al., 2002).

Furthermore, the image has two attributes that include functional (physical components) and emotional (psychological) (De Leaniz & Del Bosque Rodriguez, 2016; Palacio et al., 2002). For the purpose of this study, image questionnaire items cover both functional and emotional attributes of the variable. In the field of marketing and public relations, the concepts of image and reputation have gained gradually more attention. The study of Chang et al. (2019) demonstrated that image has a significant impact as it helps to acquire potential customers and builds loyalty
relationships. Additionally, Almeida and Coelho (2019) mentioned that creating a positive image of an entity could lead to long-term relationships with customers (students).

According to Hashim et al. (2015), there are few studies on university image and its effect on students’ behavior. This study therefore adds value to university image literature by providing statistical evidence. Employing the understanding of the current context, the following hypotheses is proposed.

H7: Institution image has a positive and significant impact on reputation.

Institutional Reputation

Scholars (Kaushal et al., 2021; Almeida & Coelho, 2019) mentioned the importance of institutional reputation and reputation as the result of long-term evaluation and progress of information development between customers. Reputation is a practical concept when it comes to getting the attention of students (Shehzadi et al., 2021), and fulfilled expectations lead to reputation (Tschannen-Moran and Hoy, 2000). According to Almeida and Coelho (2019), reputation is an intangible asset and can be defined as the public image and quality of an institution derived from the past experience of quality.

According to Fombrun and Gardberg (2000), reputation measures comprise six aspects that include emotional appeal, products and services, vision and leadership, workplace environment, financial performance, and social responsibility. The following figure 2 illustrates the reputation quotient adopted from Fombrun and Gardberg (2000).

Furthermore, Fombrun and Gardberg (2000) advocated that a good reputation enables the institution to attract better talents while lowering service costs, and most importantly, it could develop positive word-of-mouth authorization. In the study of Tschannen-Moran and Hoy (2000), it is mentioned that reputation is built on the long-term accumulation of fulfilled expectations. Further, Khan et al. (2023) said that reputation could be improved through the quality of online learning. Other studies (Rashid and Mustafa, 2022; Sung and Yang, 2008) argued that building a favorable reputation leads to organizational competitive advantage in which customer loyalty could be eventually achieved. Similarly, Almeida and Coelho (2019) mentioned that competitive advantage could be gained by building a good organizational reputation. Some studies investigated reputation and identified the impact between two constructs (De Leaniz and Del Bosque Rodríguez, 2016).
METHODOLOGY

In this research, a deductive approach based on a quantitative technique with path analysis is utilized to present the theory and facts that highlight the relationship between the observed variables, as well as to calculate the path coefficient values and the structural model outcomes. In light of this, a survey questionnaire with an introduction, demographics, and questions was created. As stated in the questionnaire’s introduction, participation in the survey was voluntary, and responses were kept confidential. Furthermore, the demographic section includes information about the participants’ age, gender, educational background, and scholarship status. Consequently, the final part of the survey includes questionnaire items pertinent to the constructs of this study. The questionnaire has been divided into multiple sections to aid in survey completion and reduces the impact of biases. Furthermore, data have been collected using Google Forms.

Data have been collected empirically to test the hypothesized research model. The population of the study is international students (N = 200,000 and n = 250) who are studying at different public higher education institutions in Türkiye. The total number of questionnaire respondents was 267 international students. However, after data cleaning only 250 questionnaire responses were usable for data analysis. Initially, higher education institutions were targeted with a higher number of international students and higherranked universities from the western and northern parts of Türkiye.

Figure 2. Reputation Quotient (Fombrun & Gardberg, 2000).
Furthermore, the non-probability sampling technique which is purposive sampling has been used. This sampling technique draws attention to efficiency in cost and time compared with other sampling techniques. This technique is also called convenience sampling. To reduce sample selection bias, diversification is used by collecting the data across public universities (within Türkiye) on various days. The data was collected during the months of January and February, 2023. A larger data size than needed was collected to decrease the bias of data. Generally, these techniques help increase the strength of the research itself. Before data collection, pilot test and pretesting were conducted to check the validity and reliability of research instruments. The data were analyzed using the Smart PLS 4 program.

RESEARCH RESULTS AND DISCUSSIONS

The sample size of international students (N = 250) consists of 173 (69.2%) male and 77 (30.8%) female respondents. Most of the respondents were aged between 25 and 30 years old (66%). The majority of international students came from Western Asia (25.2%), North Central Africa (22.8%), and Central Asia (17.2%) while the minority of them came from Europe (8%) and Western Asia (3.2%). As shown in above Table 1, international students have chosen engineering (34.8%), finance and banking (22.8%), chemistry and biology (11.6%), and international relations (6.8%) programs. In addition, the remaining (24%) represents other programs such as business, management, tourism, social sciences, political sciences, history, literature, theology, architecture, and agriculture as shown in Table 1.

<table>
<thead>
<tr>
<th>Table 1. Respondent Data</th>
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<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Age</td>
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<tr>
<td>Education</td>
</tr>
<tr>
<td>Program</td>
</tr>
<tr>
<td>Scholarship</td>
</tr>
</tbody>
</table>

Research Instrument

The constructs of this study were built based on existing literature to analyze the research model. All construct elements are measured on a five-point Likert scale, with values ranging from 1 (strongly disagree)
to 5 (strongly agree), and are adapted to the current research context. The constructs are adapted including institution image (Kaushal et al., 2021), institution reputation (Sung & Yang, 2008), informational influence (Bearden et al., 1989), online learning (Udo et al., 2011), perceived value and perceived quality (Kaushal et al., 2021).

As a rule of thumb, reliability for exploratory research should be at least 0.60, whereas reliability for research that relies on established indicators should be at least 0.70 (Hair et al., 2019). In the present study, the reliability assessment of Cronbach’s α coefficient and composite reliability (CR) for all constructs exceeded the minimum value of 0.70 which indicates the constructs’ reliability (Hair et al., 2023). The outcomes of average variance extracted (AVE) confirmed the adequacy of convergent validity as the results were greater than the adequate level of 0.50 (Hair et al., 2014; Fornell & Larcker, 1981).

Measurement and Model Assessment

This study employs the Partial Least Squares-Structural Equation Modeling (PLS-SEM) technique for statistical data analysis using Smart PLS 4 (Davari & Rezazadeh, 2014) and it uses a reflective measurement model based on Structural Equation Modeling (SEM) to perform two tests: the first will use the PLS-SEM standard algorithm to validate the constructs and measurement items and their reliability by calculating (Convergent Validity, Average Variance Extracted, Internal Consistency Reliability, Discriminant Validity, Fornell-larcker criterion, and Cross loadings) (Albayati et al., 2023). In addition, this study conducts R Square statistics to explain the variance. Consequently, R Square statistics are used to explain the variance in the endogenous variable that is explained by the exogenous factors, while employment of bootstrapping is helpful to measure the hypothesis significance by analyzing the p-value, t-value, and path coefficients. Testing the outer loadings and outer weights is beneficial to estimate relationships in reflective measurement models. Finally, the p-value is used to evaluate the indirect impact of a construct by multiple regression analysis and uncover the constructs’ underlying impact (Hair et al., 2019).

Structural Model Assessment

Authors of this article developed and computed the following table 2 to illustrate measurement model results.

Table 2. Measurement Model Results
Table 3

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>Discriminant Validity</th>
<th>Internal Consistency Reliability</th>
<th>Convergent Validity</th>
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<tr>
<td></td>
<td>Cronbach’s alpha 0.60 – 0.90</td>
<td>Composite reliability 0.60 – 0.90</td>
<td>AVE (rho_a) (rho_c)</td>
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<td>0.909</td>
<td>0.911</td>
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<td>Information Influence</td>
<td>Yes</td>
<td>0.848</td>
<td>0.852</td>
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<td>Online Learning</td>
<td>Yes</td>
<td>0.915</td>
<td>0.917</td>
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<td>Perceived Quality</td>
<td>Yes</td>
<td>0.907</td>
<td>0.911</td>
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<td>Perceived Value</td>
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<td>0.896</td>
<td>0.901</td>
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<tr>
<td>Reputation</td>
<td>Yes</td>
<td>0.898</td>
<td>0.904</td>
</tr>
</tbody>
</table>

Cross Loadings

Authors of this article developed and computed the following table 3 to illustrate cross loading results.
Authors of this article developed and computed the above shown table 4 to illustrate discriminant validity results.

Table 4. Discriminant validity (Fornell-larcker criterion)

<table>
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<tr>
<th></th>
<th>Image</th>
<th>InfoInfluence</th>
<th>Online-Learning</th>
<th>PerSer-Quality</th>
<th>PerValue</th>
<th>Reputation</th>
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<tr>
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<td>InfoInfluence</td>
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<td>0.893</td>
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<td>PerSer-Quality</td>
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<td>0.666</td>
<td>0.631</td>
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<td>PerValue</td>
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<td>0.823</td>
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<td>0.635</td>
<td>0.807</td>
<td>0.792</td>
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</tbody>
</table>

*Note:* The bolded values displayed on the diagonal reflect the square root of AVE. Off-diagonal values reflect the pairwise correlations between the constructs.

Path Analysis

Following the examination of the measurement model, the structural path is evaluated for the examination of path coefficients (relationships among the constructs) and their significance level. The summary of all hypothesis results is presented in Table 5. The structural model is presented in Figure 3.
Table 5. Results of the Hypothesis Test

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>B</th>
<th>SE</th>
<th>T</th>
<th>P</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>InfoInfluence -&gt; OnlineLearning</td>
<td>0.532</td>
<td>0.056</td>
<td>9.447</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H1b</td>
<td>InfoInfluence -&gt; PerValue</td>
<td>0.168</td>
<td>0.065</td>
<td>2.605</td>
<td>0.009</td>
<td>Supported</td>
</tr>
<tr>
<td>H1c</td>
<td>InfoInfluence -&gt; PerSerQuality</td>
<td>0.665</td>
<td>0.052</td>
<td>12.836</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>OnlineLearning -&gt; PerValue</td>
<td>0.145</td>
<td>0.058</td>
<td>2.479</td>
<td>0.013</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>PerSerQuality -&gt; PerValue</td>
<td>0.619</td>
<td>0.064</td>
<td>9.745</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>PerValue -&gt; Image</td>
<td>0.338</td>
<td>0.096</td>
<td>3.504</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>OnlineLearning -&gt; Image</td>
<td>0.049</td>
<td>0.050</td>
<td>0.998</td>
<td>0.318</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H6</td>
<td>PerSerQuality -&gt; Image</td>
<td>0.467</td>
<td>0.098</td>
<td>4.786</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H7</td>
<td>Image -&gt; Reputation</td>
<td>0.837</td>
<td>0.027</td>
<td>31.512</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

*Note: B = Beta Coefficient, SE = Standard Error, T = t-Statistics, P = Probability Value, *Relations-hips are significant at P < 0.05*
RESEARCH DISCUSSION AND CONCLUSION

The study results discovered that Hypothesis 1a, that the informational influence has a significant and positive impact on online learning quality with the findings of $B = 0.532$, $t = 9.447$, $p < 0.05$. Therefore, H1a was supported. According to Price et al. (1989), informational influence is perceived as expanding the individual’s understanding of his environment as well as his capacity for dealing with some aspect of his surroundings. In this way, information obtained from reliable sources is important because it affects the decision-making process (Bearden et al., 1989). Similarly, social media plays an important role in the exchange of content and the adoption of technology for knowledge exchange is aided by widespread ingenuity (Intyaswati et al., 2021). Online education has inspired significant interest both within and outside of higher education by representing the opportunity to fundamentally revolutionize learning delivery and the competitive landscape (Volery & Lord, 2000).

Furthermore, informational influence and perceived value findings indicate a positive and significant impact ($B = 0.168$, $t = 2.605$, $p < 0.05$). As a result, H1b was supported. However, it is contradictory to the study of Sharma and Klein (2020). This could be due to the differences in the research context, as this study context is higher education while Sharma and Klein’s (2020) study is related to retailing and consumer services. In addition, H1c was also supported indicating a positive and significant impact of informational influence on perceived service quality ($B = 0.665$, $t = 12.836$, $p < 0.05$). Furthermore, hypothesis 2 measures whether online learning has a significant and positive impact on perceived value. The results indicated that online learning has a positive and significant impact on perceived value ($B = 0.145$, $t = 2.479$, $p < 0.05$). As a result, H2 was supported. Similarly, hypothesis 3 assesses whether the perceived service quality has a significant and positive impact on perceived value. The results indicated that perceived service quality has a positive and significant impact on perceived value ($B = 0.619$, $t = 9.745$, $p < 0.05$). Therefore, H3 was supported. Before service encounters, students examine numerous elements that influence their assessment of service quality (Sultan & Wong, 2012).

H4 measures whether the higher value of perceived value will have a significant and positive impact on the institution’s image. The results indicated that perceived value has a positive and significant impact on institution’s image ($B = 0.338$, $t = 3.504$, $p < 0.05$). Therefore, H4 was
supported. On contrary, hypothesis five for this study is not accepted. The results revealed that online learning quality has an insignificant impact on institution’s image \((B = 0.049, t = 0.998, p = 0.318)\). The following H6 evaluates whether the perceived service quality has a significant and positive impact on institution’s image. The results indicated that perceived service quality has a positive and significant impact on institution’s image \((B = 0.467, t = 4.786, p < 0.05)\). As a consequence, H6 was supported. Furthermore, this study’s results for hypothesis seven about image and reputation confirm the findings of Kaushal et al. (2021). H7 measures whether the institution’s image will have a significant and positive impact on its reputation. The results indicated that institution image has a positive and significant impact on reputation \((B = 0.837, t = 31.512, p < 0.05)\), thus, H7 was supported.

Research question number one was answered by reviewing the previous literature. The second part of the research question was answered by investigating and confirming the hypothesis results, except hypothesis five. In hypothesis five, online learning quality did not show significant impact on institution image. However, all other hypothesis are accepted because they met the statistical requirements.

RESEARCH LIMITATIONS AND SUGGESTIONS

One of the important limitations of this study is that online learning quality items should be chosen carefully. The hypothesis related to the online learning quality and institution image is not supported. Therefore, it is suggested that new items should be used for other related studies. Furthermore, this study collected the data from public universities. The future studies should include private higher education institutions in their study. In this study, the sample size of international students \((N = 250)\) consists of 173 (69.2%) male and 77 (30.8%) female respondents. This shows female respondents equal to half of the male respondents. This is another significant research limitation. Therefore, it is suggested that future studies consider this limitation to generalize the findings.

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References


