



The Influence of Digital Marketing Practices on Student Experience: A Case Research in the Moroccan University Context

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Abstract. Organizations are developing and implementing digital strategies to improve customer experience in an era of rapid technological advancements. In this context, technological development and the growing enthusiasm for innovations must be accepted to remain competitive. According to the strategic orientations of USMBA, digital university promotes the flourishing and well-being of students. Therefore, this research aimed to evaluate the impact of digital marketing practices, such as emailing, content marketing, social media, and mobile marketing, on the customer experience of students at the Faculty of Legal, Economic, and Social Sciences in Fez. A total of 302 responses were collected using an online questionnaire to answer the research questions. The data were analyzed using the structural equation method with SmartPLS 3 software. The results showed that the coefficient of determination ($R^2 = 0.262$) confirms the model's moderate explanatory power, and the Goodness of Fit ($GoF = 0.39$) validates the overall model adequacy, thus explaining the findings that that emailing and content marketing have a significant positive impact on customer experience. The impact of digital marketing practices on the customer experience was widely addressed in commercial contexts. Meanwhile, the adaptation of the research to a Moroccan public university offered a new and valuable perspective.

Keywords: Customer experience; Digital marketing; Higher education; Public university

1. Introduction

The development of new technologies, the spread of the Internet, and social media are leading to unprecedented wave of changes in customer behavior as well as digital marketing practices and capabilities (Masrianto *et al.*, 2024; Cevher, 2024; Nuseir *et al.*, 2023; Alzoubi *et al.*, 2022; Agus *et al.*, 2021). In response to these transformations, organizations are increasingly adopting digital strategies to enhance competitiveness and

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attract new customers (Schutte and Chauke, 2022). Building on the foundation, digital marketing is a powerful strategy compared to traditional marketing, enabling organizations to build lasting relationships with customers through channels (Dimitrios *et al.*, 2023). These channels include websites, emails, SEO, display marketing, content marketing, social media, and mobile marketing, which are integral components of digital marketing strategies (Desai, 2019). Practices promote organizations, attract potential customers, facilitate effective communication, and enhance the overall experience (Cevher, 2024; Harbi and Ali, 2022). The COVID-19 health crisis has increased the adoption of digital tools, emphasizing the critical importance of digital culture. Therefore, organizations are compelled to reassess strategies to enhance and modernize customer experiences through digital channels (Dasić *et al.*, 2023; Agus *et al.*, 2021).

In line with the advancements, (Kusumawati, 2019) reported that universities must transition from distributing brochures to using digital technologies to effectively communicate and ensure a satisfying student customer experience (Faria and Nóvoa, 2017). However, the question of the status of student as a customer within university generates several controversies. Can students be considered customers? According to (Ostrom *et al.*, 2011), higher education is a service aimed at various types of customers, including students. In this context, universities adopt marketing strategies to provide students with a memorable and satisfactory experience (Cuthbert, 2004). However, some research express reservations about this perspective, stating that considering students as customers could affect the academic integrity of educational institutions. This status should be limited to specific aspects, such as communication, feedback, and classroom interactions (Koris and Nokelainen, 2015).

Universities operate in a highly competitive environment (Sułkowski, 2016) and the application of digital marketing allows institutions to enhance brand image, engage students, recruit top talent, and communicate more effectively with other stakeholders (Cevher, 2024; Godin and Terekhova, 2021; Kusumawati, 2019). Even though digital marketing and the impact on customer experience are widely discussed, very few research have focused on these principles in the academic environment, reporting a significant gap in the literature (Cevher, 2024; Nuseir *et al.*, 2023; Baddam, 2022; Bala and Verma, 2018).

This research aims to fill the gap by examining the effects of digital marketing practices on customer experience within higher education, focusing on students at the Faculty of Legal, Economic, and Social Sciences at the University of Sidi Mohamed Ben Abdellah (USMBA) in Fez, Morocco. Therefore, the following problem was presented, "What is the impact of digital marketing practices on the customer experience? Case of USMBA students". As part of the empirical research, a methodology was implemented to examine the impact of digital marketing practices on customer experience. The method adopted is based on structural equation modeling using PLS-SEM. Data were collected using an online questionnaire administered to a representative sample of public university students. This research applied digital marketing strategies to the unique environment of a public university in Morocco, USMBA. Even though a lot of investigations were focused on the effects of digital marketing on customers in the private sector, this research provided a fresh perspective by examining the effects of emailing, content marketing, and social media on experience of students. The literature review will be presented first, followed by an outline of the hypotheses to address the research question. The methodology used to analyze the data is described to validate the model. Subsequently, the results are discussed before concluding.

2. Theoretical Background and Research Hypotheses

This research aims to analyze the impact of digital marketing practices on customer experience. A theoretical gap has been identified drawing on existing literature regarding practices within university setting. Few research have focused on specific practices such as content marketing, emailing, mobile marketing, and affiliate marketing (Harbi and Ali, 2022). Therefore, a research model has been developed to examine the impact of three specific practices, namely emailing, content marketing, and social media, on customer experience (see Figure 1). Research by (Calma and Dickson-Deane, 2020) reported that universities could use digital marketing to convey a positive brand image, improve reputation and rankings, as well as develop strong partnerships with stakeholders.

In university context, students are seen as customers by selecting research programs and deciding on courses (Laing and Laing, 2016). The importance of the customer experience has grown with the proliferation of technological advances. Digital marketing enables public organizations to enhance the customer experience and communicate more effectively with the target audience (Vărzaru, 2023).

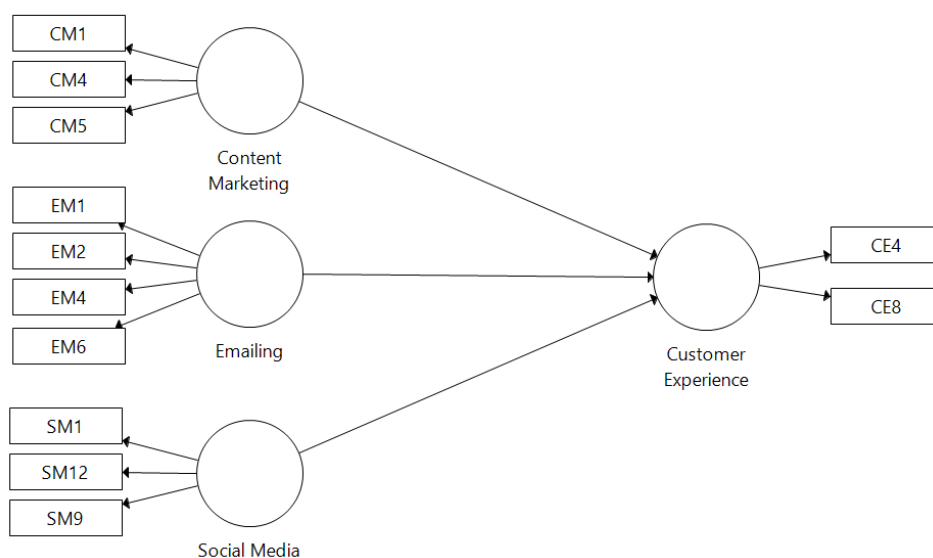


Figure 1 Structural model representing the impact of digital marketing practices on customer experience

Figure 1 above illustrates the structural model used to analyse the impact of digital marketing practices on the customer experience: *Content Marketing, Emailing and Social Media*. These variables are exogenous and are hypothetically linked to the dependent variable “*Customer Experience*”. This structural model enables us to understand the interactions between digital marketing practices and their influence on customer experience in a university context.

2.1. Content Marketing

Content marketing includes publishing valuable content across various digital channels. The types include educational, product-related, and cause-related content (Fan, Wang, and Mou, 2024; Salonen *et al.*, 2024). Content marketing represents an unprecedented shift in marketing culture, moving from a sales-oriented method to a type focused on help and support. The process includes distributing quality content that meets the needs of customers (Terho *et al.*, 2022). Organizations can improve the overall customer experience through the distribution of content (Skinner, 2016). In the academic context, digital evolution and

societal demands are pushing universities towards creating attractive and engaging brand content. Faced with demanding and connected students, mass communication has become outdated, forcing institutions to shift towards customer-oriented content (Pharr, 2019; Will, 2024a). Therefore, the following hypothesis was formulated.

H1: Content Marketing in higher education positively influences experience of students.

2.2. Emailing

Despite the rapid proliferation of social media, email marketing continues to hold a prominent place in digital strategies and remains the most effective and fastest tool for maintaining a personalized relationship with the customer (Turunen, 2021; Smith, 2012). There are various strategies that a company can employ to implement an email marketing campaign between newsletters, direct emails, or transactional emails (GhavamiLahiji and Abbas, 2016). The goal of any emailing campaign is to enhance the visibility of a brand, personalize the relationship with customers, and build a solid and trusting relationship (Bismo, Putra, Melysa, 2019; Parise, Guinan, and Kafka, 2016). Moreover, artificial intelligence tools significantly enhance the effectiveness of email marketing strategies. For instance, organizations can now personalize email delivery based on the online behavior of each customer (Cevher, 2024; Boddu *et al.*, 2022). Email marketing is digital marketing practice that allows organizations to personalize the customer experience, as well as engage, attract, and retain customers (Cevher, 2024; Sahni, Wheeler, and Chintagunta, 2018; GhavamiLahiji and Abbas, 2016). In higher education, email marketing is the most favored communication method used by students and parents. A successful email campaign enables universities to attract new prospects, retain existing students, and build lasting relationships with other stakeholders (Will, 2024b; Laura, 2015). Therefore, the following hypothesis was formulated.

H2: Email Marketing significantly improves experience of students in higher education institutions.

2.3. Social Media

Facebook, YouTube, LinkedIn, and Instagram social media platforms enable companies to actively listen to and effectively communicate with customers (Cevher, 2024). Different organizations can use social media to individualize customer relations and personalize communication (Nuseir *et al.*, 2023). According to (Bismo, Putra, Melysa, 2019), social media allows organizations to inform customers, build solid relationships, and interact in real-time.

The transition from traditional to social media represents a crucial turning point. Due to the speed, social media enables empowering customers and creating personalized interactions to enhance satisfaction and loyalty (Ebrahim, 2019).

Considering the work of (Habib, 2020; Singh, Veron-Jackson, Cullinane, 2008; Erat *et al.*, 2006; Osterwalder and Pigneur, 2002), social media enable organizations to better understand customers to influence experience, engagement, and trust. In the academic context, this technological advancement promotes the services and activities of institutions, connects with current and potential students, and ensures visibility among third parties. (Aman and Hussin, 2018). Therefore, the following hypothesis was formulated.

H3: Social Media Marketing has a positive impact on experience of students in higher education institutions

3. Research and methodology

The research primarily adopted a confirmatory perspective to evaluate the impact of digital marketing practices such as emailing, content marketing, and social media on

experience of students at the Faculty of Legal, Economic, and Social Sciences in Fez (FSJES of USMBA). To achieve this objective, the conceptual framework was constructed through an in-depth literature review within the context of confirmatory factor analysis (CFA) that facilitated the modeling of measurement and structural aspects (Sarstedt *et al.*, 2020). In addition, the questionnaire was administered to a population composed of Bachelor's, Master's, and PhD students belonging to the FSJES Fez of USMBA between December 2021 and March 2022. A total of 302 responses were collected using a quantitative questionnaire and students were approached by the faculty. Before taking part in the survey, respondents were informed of the objectives and confidentiality of answers. Consent to take part in the research was presented, and all responses were anonymized to guarantee the confidentiality of the data collected.

The questionnaire included questions related to Emailing, Content marketing, social media, and customer experience. Using a five-level Likert scale ranging from "1: Strongly Disagree" to "5: Strongly Agree," respondents were able to express opinions on the dimensions. Table 1 gives a detailed description of the variables, specifying the role in the analysis (dependent and independent). This presentation clarified the contribution of each variable to the construction of the model and facilitated the identification of the relationships.

Table 1 Explanation of variables and specifications in the model

Variable	Description	Type
Customer Experience	This measures how students feel overall about the services university provides.	Dependent Variable
Content Marketing	Looks at how efforts in content marketing affect student engagement and perceptions.	Independent Variable
Emailing	Examines the impact of email campaigns on student experiences.	Independent Variable
Social media	Research show interactions and content on social media influence student experiences.	Independent Variable

In this research, certain control variables were omitted such as access to the Internet and technology, as well as the frequency of use of digital tools. The influence of technology and the impact of digital marketing practices on student experience can be understood by including the variables. The main goal was to assess the impact of digital marketing practices, rather than focusing on external factors such as access to technology or respondent demographics and socio-economic characteristics.

For the analysis of the hypotheses, the PLS-SEM method was used to recognize the relevance of modeling direct and indirect paths (Iqbal *et al.*, 2021). The statistical tool used was the SmartPLS-3 software, assisting in generating confirmatory factor analysis. This method aimed to facilitate solutions while examining the hypothesized causal relationships between different constructs in a complex structural model (Hair *et al.*, 2014; Gudergan *et al.*, 2008).

Table 2 shows the diversity of the sample, providing an overview of the distribution by gender, nationality, and level of education among the respondents. In terms of gender, there are 117 men and 185 women, representing 38.70% and 61.30%, out of a total of 302 respondents. Concerning nationality, 298 respondents (98.70%) are Moroccan, while 4 respondents (1.30%) are of other nationalities, also totaling 302 individuals. In terms of level of education, 155, 48, and 99 respondents have a Bachelor's degree (51.30%), Master's degree (15.90%), and Doctorate (32.80%). These data show a predominantly female and Moroccan sample, with a significant proportion holding a Bachelor's degree.

Table 2 Socio-professional category of local actors (N = 302)

Gender	Frequency	Percentage
Man	117	38.70%
Woman	185	61.30%
Total	302	100.00%

Nationality	Frequency	Percentage
Other nationalities	4	1.30%
Moroccan	298	98.70%
Total	302	100.00%

Table 2 Socio-professional category of local actors (N = 302) (cont.)

Level of education	Frequency	Percentage
Bachelor degree	155	51.30%
Master	48	15.90%
Doctorate	99	32.80%
Total	302	100.00%

4. Results

4.1. Measurement Model

The validity and reliability of the research model were developed with SmartPLS 3 to verify the hypotheses using the PLS-SEM method. This process includes two main steps, namely checking convergent and discriminant validity. Convergent validity is aimed at assessing the reliability and validity of the constructs, as reported in Table 3. This requires evaluating factor saturation to measure the contribution of each item to the respective latent variable (Henseler, Hubona, and Ray, 2016; Henseler, Ringle, and Sinkovics, 2009). Measurement items were removed with values below .50 but some research recommended retaining items with factor loadings above .70 (Sarstedt, Ringle, and Hair, 2021). Before eliminating items with factor loadings below 0.70, it is essential to evaluate whether the removal improves composite reliability and average variance extracted (AVE) values to meet the recommended thresholds (Hair *et al.*, 2014). Therefore, all items were retained.

Composite reliability and AVE were used to validate convergent validity. The first criterion, composite reliability, is used to assess the internal consistency of measurement scales. For composite reliability to be considered acceptable, loading values must be above 0.7 (Tenenhaus *et al.*, 2005; Wasko and Faraj, 2005). AVE is a metric determining the extent to which a theoretical construct defines the variance shared between the latent construct and the items measured (Hair *et al.*, 2010). The measure is considered reliable when the AVE is greater than 0.50 (Sarstedt, Ringle, and Hair, 2021; Henseler, Hubona, and Ray, 2016).

The convergent validity of the model is confirmed since composite reliability and AVE exceeds 0.7 and 0.5, respectively. Table 3 shows further details on reliability and construct validity. Discriminant validity ensures that the items of a construct are distinctly different in the model. The Fornell-Larcker criterion (Henseler, Ringle, and Sarstedt, 2015), Cross Loading, and HTMT are used to measure validity. The Fornell-Larcker criterion (Henseler, Ringle, and Sarstedt, 2015) includes comparing the square root of the AVE with the correlations between the constructs in the model. Adequate discriminant validity is achieved when the square root of the AVE exceeds the highest correlation between constructs, ensuring that diagonal elements have higher values than off-diagonal elements. Table 4 shows that the results confirm the validity.

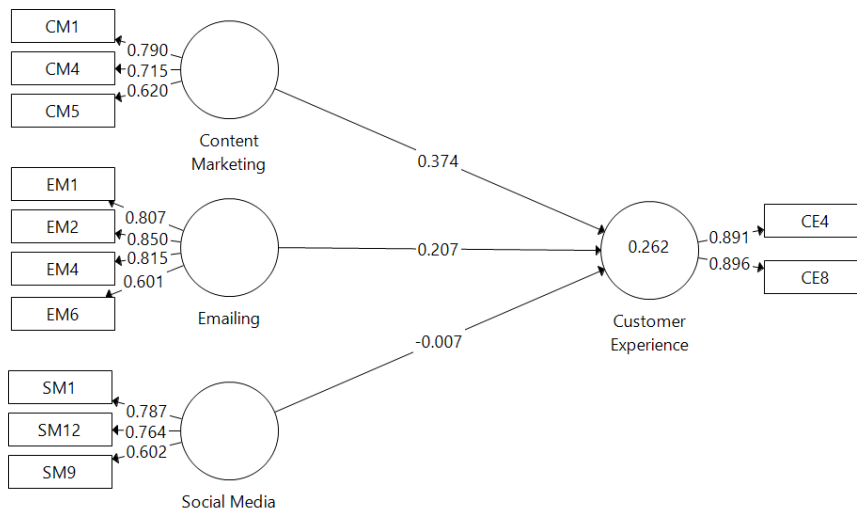


Figure 2 Individual item reliability (Factor Loadings).

Table 3 Results of measurement model—convergent validity.

Variables	Code	Factor Loadings	Reliability composite	AVE
Customer Experience	CE4	0.891	0.888	0.798
	CE8	0.896		
Content marketing	CM1	0.790	0.754	0.507
	CM4	0.715		
	CM5	0.620		
Emailing	EM1	0.807	0.855	0.600
	EM2	0.850		
	EM4	0.815		
	EM6	0.601		
Social media	SM1	0.787	0.764	0.522
	SM12	0.764		
	SM9	0.602		

Concerning cross-loadings, this criterion assesses whether the loading of each item is higher on the construct than others. The results in Table 5 confirm discriminant validity, showing that the loading of each item is higher than the cross-loadings of others (Henseler, Ringle, and Sarstedt, 2015).

Table 4 Discriminant Validity using Fornell & Larcker

	Emailing	Content marketing	Social media	Customer Experience
Emailing	0.774			
Content marketing	0.539	0.712		
Social media	0.387	0.472	0.722	
Customer Experience	0.406	0.482	0.250	0.894

The last criterion used to verify discriminant validity is the HTMT (Heterotrait-Monotrait) ratio. This test includes comparing the average correlation of items within the same construct to the average correlation of items. For established discriminant validity, the HTMT value must be below 0.90 (Kline, 2011; Gold, Malhotra, and Segars, 2001).

Table 5 Results of cross-loading analysis for variables in the research model

	Emailing	Content marketing	Social Media	Customer Experience
CE4	0.333	0.440	0.225	0.891
CE8	0.392	0.422	0.222	0.896
CM1	0.445	0.790	0.322	0.413
CM4	0.453	0.715	0.348	0.263
CM5	0.257	0.620	0.351	0.324
EM1	0.807	0.419	0.209	0.360
EM2	0.850	0.458	0.209	0.320
EM4	0.815	0.393	0.353	0.321
EM6	0.601	0.410	0.495	0.243
SM1	0.306	0.367	0.787	0.211
SM12	0.327	0.393	0.764	0.204
SM9	0.141	0.211	0.602	0.073

Table 6 Discriminant Validity using HTMT Ratio

	Emailing	Content marketing	Social Media	Customer Experience
Emailing				
Content marketing	0.865			
Social Media	0.553	0.805		
Customer Experience	0.530	0.752	0.334	

After conducting the three tests, our model’s discriminant validity is confirmed.

4.2. Structural Model

The structural model is evaluated after verifying the reliability and validity of the measurement scales. First, the coefficient of determination R² is analyzed, which must be equal to or greater than 0.1, as recommended by Falk and B. Miller (1992). This coefficient assesses the performance of the model by measuring the influence of exogenous variables on endogenous (Hair et al., 2011; Elliott and Woodward, 2007). Second, the indirect effect of F2 and the predictive relevance of Q2 are examined. The Q2 must be greater than zero to confirm the predictive relevance of the model (Janadari et al., 2016). Table 7 summarizes the results obtained for the determination coefficients R² and predictive relevance Q². The R² value for models relating to User Experience exceeds 0.10, in line with the recommendations of Falk and B. Miller (1992) and Hair, Ringle, and Sarstedt (2011). Additionally, the Q² for endogenous variables is greater than zero, confirming the predictive relevance of the model (Janadari et al., 2016).

Table 7 The coefficient of determination R² & the predictive relevance Q²

	R ²	Q ²
Customer Experience	0.262	0.199

The Goodness of Fit (GoF) has been calculated to assess the overall fit and adequacy of the model (Henseler, Ringle, and Sarstedt, 2015; Henseler and Chin, 2010). The results obtained show a Goodness of Fit (GoF) value of 0.39, reporting that the GoF quality exceeds the threshold of 0.36. Therefore, the relevance of the PLS model is validated (Henseler and Chin, 2010).

Equation 1 The formula for calculating the GoF is as follows (See equation 1)

$$GOF = \sqrt{R^2 * AVE} \tag{1}$$

Table 8 The model fit using GoF.

	R ²	AVE	GoF
Emailing		0.600	
Content marketing		0.507	
Social media		0.522	
Customer Experience	0.262	0.798	
The sum	0.262	2.427	
The mean	0.262	0.606	
			0.399

4.3. *The path coefficient*

The last test used to evaluate the structural model is the path coefficient. This coefficient aims to analyze the adequacy of the structural model by measuring the relationships between latent variables (Hair *et al.*, 2021; Henseler, Hubona, and Ray, 2016). Student t-test was also used to verify the validity of the hypotheses within the model (Table 9 and Figure 3). For Hypothesis H1, the results reported a positive effect of content marketing on customer experience ($\beta = 0.374$, $t = 5.646$, $p\text{-value} = 0.000$), confirming Hypothesis H1. Hypothesis H2 shows that emailing has a positive and significant influence on customer experience ($\beta = 0.207$, $t = 3.277$, $p\text{-value} = 0.001$). The emailing variable also increases with content marketing. Regarding Hypothesis H3, social media has a negative influence on user experience, but the influence is not significant ($\beta = -0.007$, $t = 0.108$, $p\text{-value} = 0.914$). Therefore, Hypothesis H3 is rejected.

Table 9 Test the hypothetical relationships of the research

	Hypotheses	Original Sample	T Statistics	P Values
H1	Emailing -> customer experience	0.207	3.227	0.001
H2	Content marketing -> customer experience	0.374	5.646	0.000
H3	Social media -> customer experience	-0.007	0.108	0.914

The figure below shows the verified hypothetical relationships.

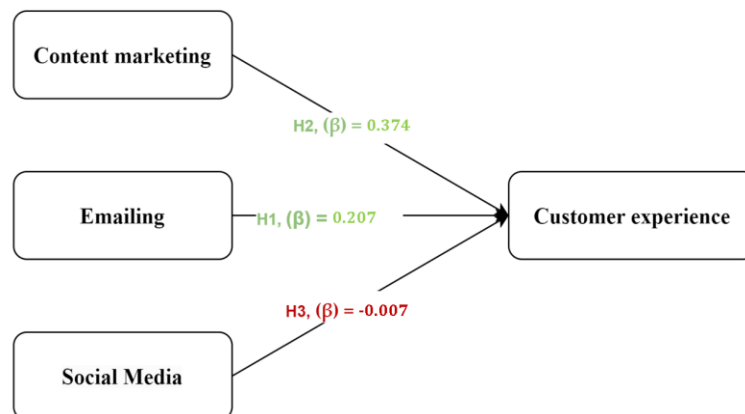


Figure 1 Results of PLS analysis

5. Discussion

This research examines the impact of digital marketing practices, particularly emailing, content marketing, and social media, on the customer experience within universities. Even though some research assessed the impact of digital marketing strategies in educational institutions, only a few explored the role of specific practices such as content marketing, emailing, mobile marketing, and affiliate marketing (Harbi and Ali, 2022).

Digital marketing practices, specifically content marketing and emailing, are based on the integration of technology management systems. These tools influence the customer experience and operational efficiency of universities through optimized information systems management (Baker and Saren, 2010).

Content marketing significantly impacts customer experience within universities. Effective, emotional, social-oriented, well-defined communication that meets customer needs enhances experience, builds brand trust, and improves value perception (Ko, 2018; Wibowo *et al.*, 2021). These results are consistent with the literature review and in line with previous research that states digital marketing significantly enhances customer experience (Koob, 2021; Harrigan *et al.*, 2018; Skinner, 2016).

The success of content marketing deployment depends on strategic implementation and the technological infrastructure. Therefore, universities need to invest in digital platforms that enable effective communication channel management and data analytics to meet customer needs and strengthen customer engagement (Chaffey and Ellis-Chadwick, 2019). The results also suggest that email marketing has a positive impact on customer experience. Effective email marketing strategies can enhance customer engagement and turn into brand ambassadors (Cevher, 2024; Bismo, Putra, Melysa, 2019; GhavamiLahiji and Abbas, 2016).

In university context, students are often seen as customers (Laing and Laing, 2016). This dynamic is particularly relevant in Moroccan universities, where some offer fee-based training, accentuating the client-provider relationship between students and the institution (Molesworth, Scullion, and Nixon., 2011; Ng and Forbes, 2009). Email marketing reaches the full potential when integrated with customer relationship management (CRM) systems. These technologies allow for precise targeting and personalization of communications but strengthen the connection between student-customer and the institution (Buttle and Maklan, 2015; Chen and Popovich, 2003). Therefore, this technical aspect becomes crucial to enhance long-term student retention and improve student engagement, specifically in an environment where the provision of paid training requires personalized service and effective student relationship management.

A surprising result is that social media has no impact on customer experience. According to some research, customers may avoid using social media due to fears of dependency and poor time management (Cuthbert, 2004). Social media must serve the interests of the customers to be effective (Bryła, Chatterjee, and Ciabiada-Bryła, 2022). Institutional and informational content tends to engage customers (Harbi and Ali, 2022). According to (Peruta and Shields, 2018), the success of social media depends on the type of content and format used by educational institutions. Therefore, the effective management of social media platforms requires a technological strategy that balances the user experience and the relevance of the content. By optimizing digital presence, institutions can reduce cognitive overload while increasing engagement (Van Dijck and Poell, 2013; Kietzmann *et al.*, 2011). The effectiveness of the platforms relies on content creation and technological optimization.

The rejection of the hypothesis can be justified by the nature of the research context, the type of content used by university, and the fear of social media dependency. The research reported the positive impact of digital marketing practices on customer experience in university environment at Sidi Mohamed Ben Abdellah University, and the Faculty of Legal, Economic, and Social Sciences of Fez (FSJES).

Proper integration of digital marketing practices and information systems can streamline communication processes and improve resource allocation (Bouwman *et al.*, 2018; Alavi and Leidner, 2001). The adoption allows universities to improve the customer experience and optimize internal operational efficiency.

Attractive content balances customer needs to offer a good customer experience and improve engagement with the institution (Bryła, Chatterjee, and Ciabiada-Bryła, 2022; Peruta and Shields, 2018; GhavamiLahiji and Abbas, 2016).

6. Conclusions

This research aimed to examine the impact of three essential digital marketing practices, namely emailing, content marketing, and social media on customer experience. A total of 302 responses were collected based on a questionnaire administered online to students of FSJES. The empirical analysis of the data confirmed a positive impact of emailing and content marketing on customer experience. However, social media did not have a significant effect on customer experience. To achieve a successful digital customer experience, organizations were expected to focus on specific aspects such as personalization, emotional engagement, and a deep understanding of customer needs. Interestingly, this research showed the unique finding that social media did not play a central role in enhancing customer experience within a public university context. Furthermore, the analysis led to significant implications for theory and practice and the research reinforced the theoretical importance of marketing practices on customer experience. Informational and administrative content did not significantly attract social media users in an educational context. Practically, the results assisted public universities in strengthening the implementation of digital strategy by capitalizing on emailing and content marketing. The importance of developing a well-thought-out digital strategy was also reported to attract and engage students. However, the research had several limitations. Firstly, the research was conducted at only one university, which might limit the generalizability of the results. Secondly, biased responses could affect the results due to social desirability. Thirdly, the rapidly evolving nature of digital marketing showed that strategies could quickly become outdated. The reliance on quantitative methods limited a deeper exploration of customer perceptions, suggesting that future research could benefit from a qualitative method to better capture the nuances of student experiences.

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