

The Mediating Role of Customer Experience in the Relationship Between Artificial Intelligence Marketing and the Corporate Image of Ride-Sharing Transportation Companies Through Smart Applications in Algeria.

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Abstract. This study examined the effect of artificial intelligence marketing on the corporate image of ride-sharing transportation companies in Algeria, with customer experience acting as a mediating variable. To achieve the study objectives, 210 suitable questionnaires were analysed, representing a response rate of 97.67%. The data were analysed using AMOS V.24 and SPSS V.26. The results showed a direct effect of artificial intelligence marketing on the customer experience of ride-sharing transportation companies through smart applications in Algeria. The study also found a direct effect of customers' experience of these companies on their corporate image. Finally, the findings indicated an indirect effect of artificial intelligence marketing on the corporate image of the companies under study via customer experience. Based on these results, the study presented a set of recommendations.

Keywords: artificial intelligence marketing, customer experience, organisational image, ride-sharing transportation companies, smart applications, Algeria.

Introduction

The services sector is undergoing rapid transformation, driven by digital developments and the increasing use of artificial intelligence applications. These applications have become a strategic tool, reshaping marketing practices. This allows organisations to gain a better understanding of their customers' needs and ensure they are met with greater accuracy and personalisation. In Algeria, there is an increasing reliance on digital platforms and smart applications for accessing services. One of the most prominent services moving in this direction is ride-sharing transportation, which now relies on new patterns of interaction between customers and service providers.

In the face of intensifying competition, customer experience has become a decisive factor in shaping perceptions and evaluations of the organisation, and consequently in building its corporate image. Consequently, an organisation's adoption of artificial intelligence marketing practices can influence its corporate image directly and indirectly, by improving customer interaction with the service and enhancing their experience.

In this context, the present study aims to examine these relationships within the ride-sharing transportation sector in Algeria, using smart applications. Therefore, the study seeks to answer the following research question:

Does artificial intelligence marketing affect the corporate image of ride-sharing transportation companies in Algeria through smart applications and customer experience?

Hypotheses

The following hypotheses were proposed to address the study's main problem statement:

- There is a statistically significant direct effect of artificial intelligence marketing on the customer experience of ride-sharing transportation companies through smart applications in Algeria.
- There is a statistically significant direct effect of customer experience on the corporate image of ride-sharing transportation companies through smart applications in Algeria.
- There is a statistically significant indirect effect of artificial intelligence marketing on the corporate image of ride-sharing transportation companies through smart applications in Algeria, with customer experience acting as a mediating variable.

Methodology of the study

Given the nature of the topic under investigation, the study adopted an inductive approach, expressing the phenomenon being studied in both quantitative and qualitative terms. Rather than merely presenting information to describe the phenomenon, this approach relies on analysing it and identifying relationships among its dimensions in order to interpret it and reach conclusions that contribute to improving and developing reality.

Accordingly, this study employed SPSS and AMOS to examine the relationship between artificial intelligence marketing and the corporate image of ride-sharing transportation companies through smart applications, with customer experience acting as a mediating variable.

1. Theoretical Background

1.1 Artificial Intelligence Marketing

Artificial intelligence (AI) in marketing involves the use of modern technologies, particularly AI techniques, to automate marketing processes and enhance their efficiency. This involves using algorithms and machine learning technologies to analyse data and make marketing campaign-related decisions (Lakshmipriyanka, Harihararao, Prasanna & Deepika, 2023, p. 1).

AI marketing relies on decision-making technologies programmed based on data collection and analysis, as well as the interpretation of targeted customers' behaviour and economic trends that may influence marketing strategies. It is often favoured in marketing areas that require high-speed performance and decision-making (Shaily & Emma, 2021, p. 30).

AI marketing improves the efficiency of marketing activities. It automates repetitive tasks such as searching for, collecting, processing and analysing data. This facilitates problem-solving and enables faster decision-making. AI marketing also increases the accuracy of decisions made to address problems, improves the precision of data-driven predictions derived from big data

inference processes and enhances availability by operating continuously, 24/7. Furthermore, AI marketing reduces the cost of customer service and improves an organisation's financial returns (Alvin Yau, Mat Saad & Chong, 2021, p. 3).

Adopting artificial intelligence is also necessary for evaluating customers' behaviours, purchases and preferences. It can support marketing managers with various tasks, such as attracting potential customers, conducting market research, managing social media channels and personalising the user experience (Basha, 2023, p. 995).

Furthermore, artificial intelligence uses customer data to predict future behaviour and enhance the customer experience at every stage. It also bridges the gap between data science and practical application by processing and analysing vast volumes of data that were previously extremely complex or nearly impossible to handle (Thiraviyam, April 2018, p. 449).

1.2 Customer Experience

Customer experience is a dynamic concept that varies not only according to the offerings provided by organizations, but also depending on the evolution of the surrounding environment and the changes that occur in consumption practices and in the communication dynamics between organizations and customers. Developments such as digitalization, e-commerce, the marketing of smartphone applications, and social media marketing influence the dynamics of customer experience (Mihail Barbu, Laurențiu Florea, Dabija, & Răzvan Barbu, 2021, p. 1417).

Customer experience reflects how customers perceive the organisation's interactions with them. It represents the cognitive and emotional outcome resulting from customers' exposure to or interaction with an organisation's employees, processes, technologies, products, services and other related outputs (Makudza, 2021, p. 192).

Furthermore, customer experience encompasses the sum total of experiences that customers have with an organisation throughout their relationship with it. This highlights the importance of providing the type of experience that customers desire, as successful organisations can influence their customers through active participation and real experiences that shape perceived value (HA, 2021, p. 1029).

Furthermore, customer experience is considered a comprehensive concept involving cognitive, emotional, social and physical responses towards the service provider (Komulainen & Saraniemi, 2019, p. 1085). It also refers to the set of interactions that occur between the customer and the product, which may generate an emotional response or stimulate certain behaviours or reactions. As each experience is characterised by subjectivity and uniqueness, formed based on each customer's personal experience and individual interaction, it is considered a primary source of competitive advantage (Imbug, Azwa Ambad & Bujang, 2018, p. 105).

1.3 Organisational image

Organisational image refers to the set of perceptions and beliefs that individuals form about a particular entity. It is one of the most important factors in helping organisations to achieve general acceptance among customers, win their preference over competitors and encourage them to engage

with the organisation. This is largely because customers perceive the organisation as bearing ethical, emotional and social responsibilities towards them, as well as its role in drawing attention to its products (Al-Shammari & Abd Ali, May 2024, p. 8).

Organisational image is also associated with reputation — namely, what comes to mind for the public when they see or hear the organisation's name. A positive organisational image is considered a valuable organisational asset as it helps to convert positive perceptions into economic value and financial gains (Rana & Kapoor, November 2016, p. 29).

Moreover, organisational image represents customers' overall impression of an organisation. It is the sum of the beliefs, ideas and impressions that the public forms about organisations (Huang, Yen, Liu & Huang, 2014, p. 72). It can also be viewed as the outcome of a cumulative process in which customers weigh up and compare the organisation's various characteristics (Weiwei, 2007, p. 58).

Organisational image is shaped by a combination of elements and information provided by sources that the organisation can and cannot control (Virvilaitė & Daubaraitė, 2011, p. 536). In marketing terms, organisational image constitutes the marketing space that reflects the intellectual, emotional and tangible dimensions that customers associate with the organisation, its products and its activities, with the aim of achieving the desired marketing behaviour (Al-Shammari & Abd Ali, May 2024, p. 9).

Finally, organisational image is considered a form of 'wealth' that is difficult to acquire yet can be lost easily and quickly. Building and maintaining a positive organisational image among customers is difficult and faces numerous obstacles, requiring continuous effort and ongoing management by the organisation and its leadership (AL-Shammari & Abd Ali, May 2024, p. 9).

2. Method and procedures:

2.1 Methodological procedures of the field study

2.1.1 Study population and sample

The study population consists of all individuals who use ride-sharing transportation services via smartphone apps in Algeria. These users rely on digital platforms, such as Yassir and Heetch, to access urban transportation services. They can also evaluate the impact of artificial intelligence marketing practices on the organisation's image.

Determining the sample size is a fundamental step in the field study, as it ensures the reliability and generalisability of the results (Hulley et al., 1988). As the present study relies on structural equation modelling (SEM) (Hair et al., 2010), the sample size was determined according to the recommendation of Hair et al. (2014). They proposed a minimum of 200 respondents as appropriate for this analysis, to ensure the accuracy and statistical power of the tests. Accordingly, the sample size for this study was set at 210 respondents, out of 215 distributed questionnaires.

2.1.2 Data Collection Tools

To achieve the study's objectives, a questionnaire was used as the primary data collection tool. It is one of the most widely used and reliable instruments in quantitative research, particularly in

studies addressing phenomena related to modern technologies and artificial intelligence marketing. This is because it allows users' perceptions and attitudes to be measured systematically and organised (Hair et al., 2014). The questionnaire was chosen because it is difficult to track changes in these phenomena or measure them using other methods, such as observation and interviews (Venkatesh et al., 2003).

The questionnaire was structured into two main sections:

The first section was designed to collect demographic data from the respondents in order to identify the general characteristics of the sample. It included variables such as gender, age category, educational level, job status, monthly income and residential area. It also contained questions related to the level at which respondents use ride-sharing transportation applications, and which application they use most. This was intended to ensure that the study participants truly represented users of this type of service.

Second section: This section included a set of statements designed to measure the main variables of the study. These statements were organised into several dimensions reflecting the aspects of the phenomenon under investigation. Specifically, the first axis covered artificial intelligence marketing across its various dimensions. The second axis addressed organisational image across its different dimensions. The third axis included customer experience across its dimensions to capture the nature of users' experiences when interacting with the smart application, and its impact on shaping their perceptions and behaviours towards the organisation.

To measure respondents' attitudes towards the questionnaire statements, the study used a five-point Likert scale ranging from "strongly agree" to "strongly disagree", as this allows for a more nuanced expression of agreement with the statements.

The questionnaire items were developed based on theoretical literature and prior studies on artificial intelligence marketing, customer experience and organisational image. This ensures that the instrument is comprehensive and capable of accurately measuring the study variables. Prior to administering the questionnaire to the sample, it was presented to a group of professors and subject-matter experts in marketing, management and information systems. This was done to verify the face and content validity of the statements and confirm that the wording was clear and free from errors or ambiguity that could affect respondents' understanding.

2.1.3 Validity and reliability of the study instrument

To assess construct validity (concept validity), the reliability of all the axes used in the questionnaire was tested using confirmatory factor analysis (CFA) (Levy, 2003, p. 8).

Before conducting the analysis, the study variables were coded as follows:

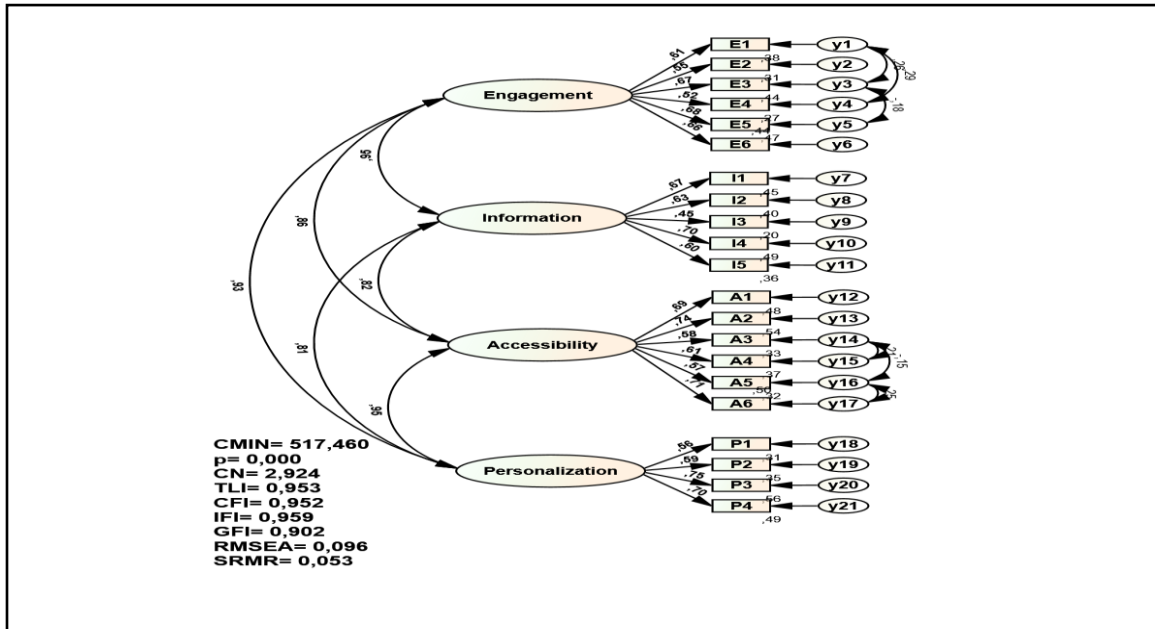
Table 01: Symbols used for the study variables

Variables	Number of items	Code
Artificial Intelligence Marketing	21	AIM
organisational image	15	OI
Customer experience	20	CE

Source: prepared by the researcher.

Confirmatory factor analysis of the AI marketing variable.

Figure 1: The confirmatory factor model for the AI marketing variable



Source: Prepared by the researcher based on the results of AMOS v.24.

Table 02: Results of the confirmatory factor analysis for the AI marketing variable

			Estimate	C.R.	P
EN1	<---	F1	0,613		
EN2	<---	F1	0,553	6,924	***
EN3	<---	F1	0,665	9,173	***
EN4	<---	F1	0,523	7,719	***
EN5	<---	F1	0,683	8,014	***
EN6	<---	F1	0,664	7,592	***
I1	<---	F2	0,669		
I2	<---	F2	0,634	8,230	***
I3	<---	F2	0,450	5,869	***
I4	<---	F2	0,702	8,637	***
I5	<---	F2	0,602	6,831	***
A1	<---	F3	0,694		

A2	<---	F3	0,736	9,665	***
A3	<---	F3	0,578	7,696	***
A4	<---	F3	0,609	7,983	***
A5	<---	F3	0,566	7,294	***
A6	<---	F3	0,710	9,028	***
P1	<---	F4	0,557		
P2	<---	F4	0,592	6,780	***
P3	<---	F4	0,747	7,783	***
P4	<---	F4	0,698	7,404	***

Source: Prepared by the researcher based on the results of AMOS v.24.

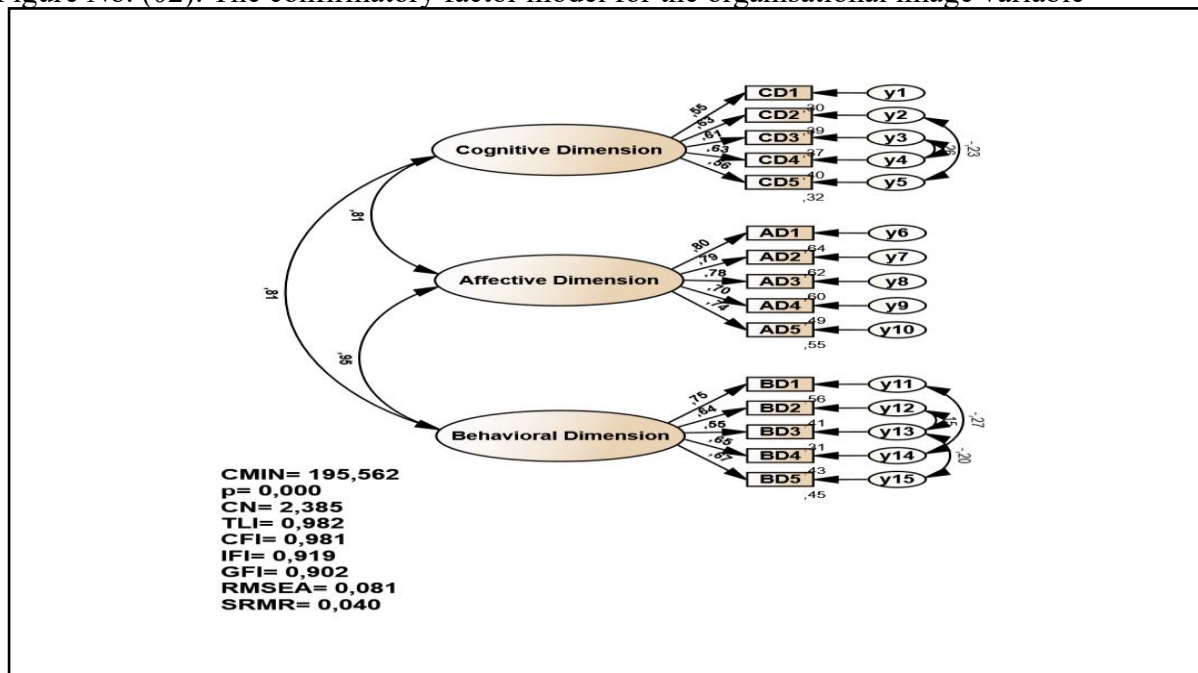
As can be seen from the figure and table above, which present the results of the confirmatory factor analysis of the AI marketing variable, all confirmatory factor analysis values between the variable's dimensions and its items are high and positive, reflecting a strong level of relationship.

According to the general guideline mentioned by Hair et al. (2014), which requires these values to be greater than or equal to 0.50 or equal to or higher than 0.45, the results also meet the criterion suggested by Hurley et al. (1997, pp. 671–672) for accepting the model for subsequent statistical analysis.

The factor loading values for this dimension ranged from 0.450 to 0.747. The results also show that all model estimates were statistically significant at the significance level $p < 0.001$. Additionally, all C.R. values exceeded the critical value of 1.96.

Confirmatory Factor Analysis of the Organizational Image Variable

Figure No. (02): The confirmatory factor model for the organisational image variable



Source: Prepared by the researcher based on the results of AMOS v.24.

Table No. 03: Results of the confirmatory factor analysis for the organisational image variable.

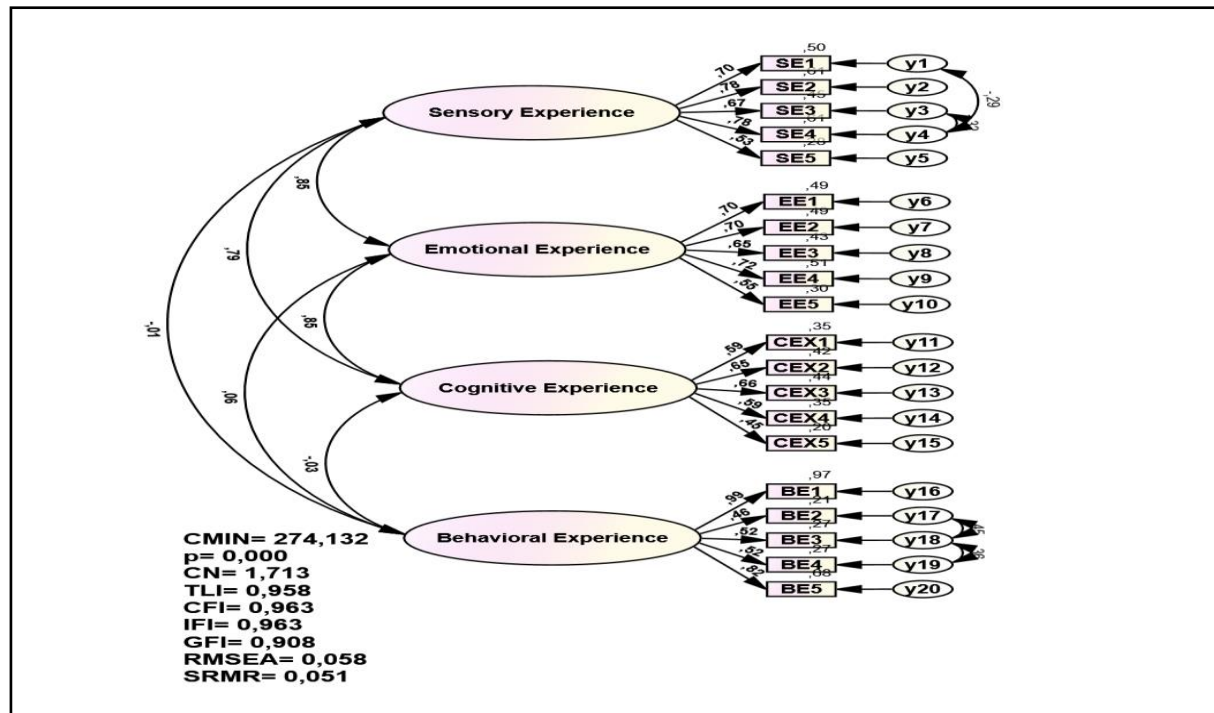
			Estimate	C.R.	P
CD1	<---	F1	0,548		
CD2	<---	F1	0,627	6,116	***
CD3	<---	F1	0,611	6,156	***
CD4	<---	F1	0,633	6,423	***
CD5	<---	F1	0,564	5,880	***
AD1	<---	F2	0,802		
AD2	<---	F2	0,785	12,522	***
AD3	<---	F2	0,777	12,390	***
AD4	<---	F2	0,698	10,704	***
AD5	<---	F2	0,741	11,557	***
BD1	<---	F3	0,748		
BD2	<---	F3	0,642	8,983	***
BD3	<---	F3	0,553	7,647	***
BD4	<---	F3	0,653	8,169	***
BD5	<---	F3	0,672	9,405	***

Source: Prepared by the researcher based on the results of AMOS v.24.

As can be seen from the figure and table above, which present the results of the confirmatory factor analysis of the organisational image variable, all values of the confirmatory factor analysis between the variable's dimensions and its items are high and positive, indicating a high level of relationship. The factor loading values for this dimension ranged from 0.548 to 0.802. The results also show that all model estimates were statistically significant at the significance level $p < 0.001$, and all C.R. values exceeded the critical value of 1.96.

Confirmatory factor analysis of the customer experience variable

Figure No. (03): The confirmatory factor model for the customer experience variable



Source: Prepared by the researcher based on the results of AMOS v.24.

Table No. 04: Results of the confirmatory factor analysis for the customer experience variable.

			Estimate	C.R.	P
SE1	<---	F1	0,704		
SE2	<---	F1	0,782	9,739	***
SE3	<---	F1	0,671	8,633	***
SE4	<---	F1	0,781	8,905	***
SE5	<---	F1	0,529	7,062	***
EE1	<---	F2	0,698		
EE2	<---	F2	0,697	9,196	***
EE3	<---	F2	0,653	8,507	***
EE4	<---	F2	0,716	9,266	***
EE5	<---	F2	0,550	7,038	***
CEX1	<---	F3	0,595		
CEX2	<---	F3	0,648	7,038	***
CEX3	<---	F3	0,664	7,033	***
CEX4	<---	F3	0,588	6,718	***

CEX5	<---	F3	0,450	5,398	***
BE1	<---	F4	0,985		
BE2	<---	F4	0,460	6,669	***
BE3	<---	F4	0,517	7,798	***
BE4	<---	F4	0,524	7,894	***
BE5	<---	F4	0,823	14,270	***

Source: Prepared by the researcher based on the results of AMOS v.24.

As can be seen from the figure and table above, which present the results of the confirmatory factor analysis of the customer experience variable, all values of the confirmatory factor analysis between the variable's dimensions and its items are high and positive, reflecting a high level of relationship. The factor loading values for this dimension ranged from 0.450 to 0.985. The results also indicate that all model estimates were statistically significant at the significance level $p < 0.001$. Additionally, all C.R. values exceeded the critical value of 1.96.

Reliability of the study instrument

Table 5: Cronbach's alpha coefficient for the study variables.

Variables	Reliability coefficient	Decision
Artificial Intelligence Marketing	0,923	Excellent
Organisational image	0,911	Excellent
Customer experience	0,854	Excellent
Questionnaire overall	0,787	Good

Source: prepared by the researcher based on the outputs of SPSS v.26.

As can be seen from the table above, all calculated values are high and exceed the minimum acceptable statistical threshold of 0.70. This indicates a high level of internal consistency among the items of each dimension. It also confirms that the study instrument reliably and trustingly measures the study variables.

For example, the Cronbach's alpha coefficient for the AI marketing dimension was 0.923. The organisational image dimension recorded a reliability coefficient of 0.911. The reliability coefficient for the customer experience dimension was 0.854. For the questionnaire as a whole, Cronbach's alpha was 0.787, reflecting a good level of statistical reliability. This confirms that the study instrument has acceptable internal consistency across all its items and that the results obtained can be relied upon in subsequent statistical analyses and in testing the study hypotheses with a high degree of confidence.

2.2 Study Results (Analysis and Discussion)

2.2.1 Descriptive analysis of the responses of the study sample

Table 6: Descriptive analysis tests for the responses of the study sample regarding each variable.

Variables	Mean	Standard deviation	Evaluation
Artificial intelligence marketing	4,05	0,56	Agree
Organisational image	4,11	0,58	Agree
Customer experience	3,97	0,44	Agree

Source: prepared by the researcher based on the outputs of SPSS v.26.

As can be seen from the table above, the arithmetic means of the responses from the study sample (users of carpooling/ride-sharing services via smartphone apps in Algeria) were generally high. This reflects a positive perception of the use of AI marketing, along with related aspects such as organisational image and customer experience.

The results suggest that users clearly understand the role of smart technologies in improving their interaction with the application, providing relevant information and enhancing their experience of using the service.

The results also show that the highest mean was for Dimension Two: Organizational Image, reaching 4.11 with a standard deviation of 0.58. This indicates a very high level of agreement among users with the statements related to this dimension.

This suggests that sample members have positive perceptions of the ride-sharing service provider, in both the cognitive (related to their perception of service quality and reliance on modern technology) and emotional (reflecting users' feelings of trust and comfort when dealing with the company) aspects. It also reflects the behavioural aspect, shown through the intention to continue using the company's services and recommending them to others.

Overall, these results suggest that the company's reliance on AI-supported marketing approaches enhances its mental image among users and strengthens its competitive position in the market.

In terms of the AI marketing dimension, it ranked second, with an arithmetic mean of 4.05 and a standard deviation of 0.56, indicating a high level of agreement among respondents with the statements in this dimension. This result shows that users recognise the effectiveness of the application's smart marketing tools, especially in terms of responding quickly to their enquiries with automated responses, providing clear and accurate marketing information about services and offers, and ensuring easy access to services through simple and flexible user interfaces. The results also reflect users' awareness of the personalisation of marketing offers based on their previous

usage patterns and interests. This strengthens users' sense that the application understands their needs and responds to them in intelligent and effective ways.

Meanwhile, the customer experience dimension came third, with an average of 3.97 and a standard deviation of 0.44, indicating a high level of agreement with the related statements. This suggests that users generally have a positive experience with ride-sharing/carpooling applications, in terms of both the sensory experience (related to the app's design and ease of navigation) and the emotional experience (reflecting users' feelings of safety and reassurance when booking the service). The results also show that the application improves users' cognitive experience by providing innovative solutions that make travel easier and save time and effort. However, the behavioural dimension within the customer experience was lower than the other dimensions, suggesting that some users are still gradually transitioning from traditional transportation methods to smart ride-sharing services despite recognising their benefits.

Overall, these results confirm that ride-sharing service providers' use of AI-supported marketing clearly enhances users' positive organisational image and improves their overall service experience. This, in turn, results in higher levels of satisfaction and loyalty towards these smart applications.

2.2.2 Test of normal distribution

To test for normality, the analysis will rely on skewness and kurtosis. Skewness should fall within the range $[-3, +3]$, and kurtosis should fall within the range $[-10, +10]$. Additionally, if the absolute value of kurtosis is between 8 and 20, this indicates severe kurtosis (Kline, 2016, pp. 76–77).

To ensure the study variables follow a normal distribution, Hair's guideline will be used, which states that the skewness and kurtosis values must all fall within the normal distribution limits of $[-1.96, +1.96]$ (Hair Jr et al., 2010, p. 116).

After conducting the normality test on the data collected from respondents for each study variable, the following results were obtained:

Table No. 07: Results of the normal distribution test.

c.r.	Flatness coefficient kurtosis	c.r.	Skew coefficient skew	Variable
AI Marketing				
3,914	1,323	-6,445	-1,089	EN1
1,377	0,465	-4,404	-,744	EN2
2,064	0,698	-6,015	-1,017	EN3
6,417	1,169	-7,898	-1,335	EN4
-1,085	-0,367	-4,066	-0,687	EN5
1,979	0,669	-6,424	-1,086	EN6
3,152	1,066	-6,386	-1,079	I1

2,054	0,695	-5,649	-0,955	I2
2,598	0,878	-4,799	-0,811	I3
2,170	0,734	-5,880	-0,994	I4
5,253	1,776	-6,646	-1,123	I5
3,661	1,138	-5,517	-0,933	A1
0,499	0,169	-3,229	-0,546	A2
4,691	1,586	-5,590	-0,945	A3
1,484	0,502	-4,520	-0,764	A4
1,496	0,506	-5,369	-0,908	A5
-0,257	-0,087	-3,933	-0,665	A6
2,530	0,855	-5,712	-0,966	P1
0,998	0,337	-4,446	-0,752	P2
3,133	1,059	-5,944	-1,005	P3
3,204	1,083	-6,160	-1,041	P4
37,632	161,425			Multivariate
Organizational image				
5,507	1,862	-5,284	-0,893	CD1
3,160	1,068	-6,421	-1,085	CD2
1,275	0,431	-4,562	-0,771	CD3
1,198	0,405	-4,931	-0,834	CD4
0,749	0,253	-4,286	-0,724	CD5
5,495	1,858	-8,094	-1,368	AD1
3,091	1,045	-6,208	-1,049	AD2
6,183	1,090	-8,420	-1,423	AD3
6,111	1,066	-7,782	-1,315	AD4
5,903	1,940	-7,029	-1,188	AD5
0,599	0,202	-4,595	-0,777	BD1
2,746	0,928	-5,349	-0,904	BD2
6,363	1,151	-7,106	-1,201	BD3
0,812	0,275	-3,861	-0,653	BD4
5,276	1,784	-7,164	-1,211	BD5
44,171	137,672			Multivariate
Customer experience				
0,254	0,086	-4,922	-0,832	SE1
2,600	0,879	-5,313	-0,898	SE2
4,164	1,408	-5,919	-1,000	SE3
2,127	0,719	-5,926	-1,002	SE4

0,727	0,246	-4,300	-0,727	SE5
3,930	1,329	-6,533	-1,104	EE1
2,492	0,842	-4,851	-0,820	EE2
6,625	1,240	-6,448	-1,090	EE3
5,829	1,941	-6,213	-1,050	EE4
2,599	0,879	-4,377	-0,740	EE5
8,150	1,755	-6,612	-1,118	CEX1
-0,279	-0,094	-2,586	-0,437	CEX2
1,186	0,401	-5,094	-0,861	CEX3
1,910	0,646	-3,774	-0,638	CEX4
3,447	1,165	-5,500	-0,930	CEX5
1,740	0,588	-5,189	-0,877	BE1
-1,179	-0,398	-3,738	-0,632	BE2
-0,680	-0,230	-3,399	-0,574	BE3
-1,018	-0,344	-4,270	-0,722	BE4
1,109	0,375	-5,624	-0,951	BE5
27,093	110,921			Multivariate

Source: prepared by the researcher based on the results of AMOS v.24.

The results in the above table indicate that the normality condition for the study variables has been met. This is based on Hair et al.'s rule, which states that all values of skewness and kurtosis must fall within the lower and upper limits of the normal distribution [-1.96; +1.96]. This suggests that the study data related to each dimension follows a normal distribution, as shown by the AMOS results. Therefore, the data are suitable for subsequent statistical analysis.

To test the hypotheses, the Regression Weights method was used. This method shows the proportion of variance explained by the independent variable in the presence of the mediating variable. This approach relies on structural equation modelling (SEM), which provides the researcher with goodness-of-fit indicators to evaluate how well the model matches the data. Once these indices have been achieved for the models, the testing is considered highly accurate (Hakim & al., 2009, p. 25).

Additionally, bootstrapping was employed to determine the statistical significance of the mediation relationships and to establish confidence intervals at the 95% level. This method is considered the most effective way of testing statistical significance.

Table No. 08: Goodness-of-fit indices.

Indicator/fit indices:	Ideal range for the index:
- Chi-square/CMIN:	- CMIN/chi-square not significant: the indicator should be non-significant. (Higher values indicate an incomplete fit.)
- CN = CMIN/DF	(Chi-square/df) less than 5: an acceptable fit.

GFI	GFI $\geq$ Greater than or equal to 0.90 = better fit
- TLI	TLI $\geq$ 0.95 = better fit
- CFI	CFI $\geq$ 0.95 = better fit
- IFI	IFI $\geq$ 0.95 = better fit
- SRMR	SRMR $\leq$ 0.05 = better fit
- RMSEA	0.05 $\leq$ RMSEA $\leq$ 0.08 = good fit 0.08 $\leq$ RMSEA $\leq$ 0.10 = acceptable fit

Source: Prepared by the researcher based on Tighza (2012, pp. 244–247).

Testing the first hypothesis

The first hypothesis can be tested using the following null and alternative hypotheses:

- H0: There is no statistically significant direct effect of AI marketing on the customer experience of ride-sharing companies through smart applications in Algeria at a significance level of 0.05.

H1: There is a statistically significant direct effect of AI marketing on the customer experience of ride-sharing companies through smart applications in Algeria at a significance level of 0.05.

Table 9: Regression analysis of variance, along with regression and determination coefficients, showing the effect of AI marketing on the customer experience of ride-sharing companies through smart applications in Algeria.

Source of variation:	Mean square	Degrees of freedom (df):	Sum of squares	F	Significance level/p-value	Correlation coefficient	Coefficient of determination
Regression	63,255	1	63,255	721,859	0,000	0,881	0,776
Residuals)	18,227	208	0,088				
Total	81,482	209					

Source: prepared by the researcher based on the outputs of SPSS v.26.

The results of the regression analysis in the above table show the effect of AI marketing on the customer experience of ride-sharing companies through smart applications in Algeria. The value of the F statistic was $F = 721.859$, which is far greater than the critical (tabulated) value of 3.84 at a significance level of 0.05. Additionally, the significance level (Sig) of 0.000 was less than the adopted significance level of 0.05, indicating that the regression model is statistically significant and valid for explaining the relationship between the study variables.

The table also shows that the correlation coefficient is $R = 0.881$, reflecting a strong and positive relationship between AI marketing and the customer experience of ride-sharing companies through smart applications in Algeria. Meanwhile, the coefficient of determination $R^2 = 0.776$ indicates that 77.6% of changes in customer experience can be explained by AI marketing. The remaining 22.4% is attributed to other factors not included in the model.

Based on this, the null hypothesis is rejected and the alternative hypothesis accepted, stating that there is a statistically significant effect of AI marketing on the customer experience of ride-sharing companies through smart applications in Algeria at a significance level of 0.05.

The following table presents the results of testing the significance of the simple linear regression model:

Table 10: Test of the significance of the coefficients of the simple linear regression model for the effect of AI marketing on the customer experience of ride-sharing companies through smart applications in Algeria.

Regression model:	Coefficients	Standard error	Bêta	T	Significance level (Sig)
Constant (A)	0,144	0,133		1,081	0,281
Regression coefficient (B)	0,955	0,036	0,881	26,867	0,000
Regression equation	Regression equation (example given): Customer Experience = 0.144 + 0.955 × AI Marketing				

Source: prepared by the researcher based on the outputs of SPSS v.26.

The results shown in the above table indicate that the regression coefficient is $B = 0.955$, with a significance level of 0.000. This coefficient is positive and statistically significant at the 0.05 significance level. This reflects the existence of a strong direct positive relationship between AI marketing and the customer experience of ride-sharing companies through smart applications in Algeria. The t-statistic value was $T = 26.867$, confirming that the effect of AI marketing on customer experience is strongly statistically significant and demonstrating the ability of this variable to explain changes in customers' experience.

Based on these results, it is evident that AI-based marketing strategies play a significant role in improving the customer experience in ride-sharing companies through smart applications. Such strategies contribute to improved customer interaction, meeting their needs and providing customised digital offers and services that increase satisfaction and loyalty.

Testing the Second Hypothesis

The second hypothesis can be tested using the following null and alternative hypotheses:

- H_0 : There is no statistically significant direct effect of customer experience on the organisational image of ride-sharing companies through smart applications in Algeria at a significance level of 0.05.

H_1 : There is a statistically significant direct effect of customer experience on the organisational image of ride-sharing companies through smart applications in Algeria at a significance level of 0.05.

Table 11 shows the regression analysis of variance, along with the regression and determination coefficients, to demonstrate the impact of customer experience on the organisational image of ride-sharing companies through smart applications in Algeria.

Source	Sum of squares (SS):	Degrees of freedom (df)	Mean square (MS)	F	Significance level/p-value	Correlation coefficient	Coefficient of determination
Regression	74,621	1	74,621	682,839	0,000	0,876	0,767
Residuals	22,730	208	0,109				
Total	97,351	209					

Source: prepared by the researcher based on the outputs of SPSS V.26.

The table above shows that customer experience has a statistically significant impact on the mental image of shared transport companies in Algeria through smart applications. Specifically, the value of the F-statistic is $F = 682.839$, which is far greater than the tabulated value of 3.84 at a significance level of 0.05. Additionally, the significance level ($\text{Sig} = 0.000$) is lower than the adopted level of significance, indicating that the regression model is significant and valid for explaining the relationship between the study variables. The correlation coefficient $R = 0.876$ further reflects the presence of a strong positive correlation between customer experience and companies' mental image. Meanwhile, the coefficient of determination $R^2 = 0.767$ shows that 76.7% of the variance in the mental image can be explained by customer experience, while the remaining 23.3% is attributable to other factors not included in the model.

Accordingly, the null hypothesis is rejected and the alternative hypothesis accepted. This states that customer experience has a statistically significant effect on the mental image of shared transport companies through smart applications in Algeria at a significance level of 0.05. The following table presents the results of the significance test for the simple linear regression model:

Table 12: Significance test of the coefficients of the simple linear regression model for the effect of customer experience on the mental image of shared-transport companies through smart applications in Algeria.

Model	Coefficients	Standard error	Bêta	T	Significance level (Sig)
Constant (A)	0,178	0,136		1,303	0,194
Regression coefficient (B)	0,957	0,037	0,876	26,131	0,000
Regression equation	Regression equation (given): Organisational image = $0.178 + 0.957 \times \text{customer experience}$				

Source: prepared by the researcher based on the outputs of SPSS V.26.

The results in the above table indicate that customer experience has a positive and statistically significant effect on the mental image of shared transport companies in Algeria through smart applications. Specifically, the regression coefficient is 0.957 ($B = 0.957$) at a significance level of 0.000. This positive and statistically significant coefficient at the 0.05 level reflects a strong positive relationship between customer experience and companies' mental image. Additionally, the t-statistic value is $T = 26.131$, confirming that the effect of customer experience on mental image is statistically highly significant. These findings also highlight the ability of this variable to explain meaningful changes in customers' perceptions of companies.

The results further demonstrate the crucial role of customer experience in enhancing companies' mental image. Positive customer experiences increase satisfaction and trust in the service, as well as strengthening loyalty to the company. This reinforces the company's competitive position within the shared-transport market in Algeria through smart applications.

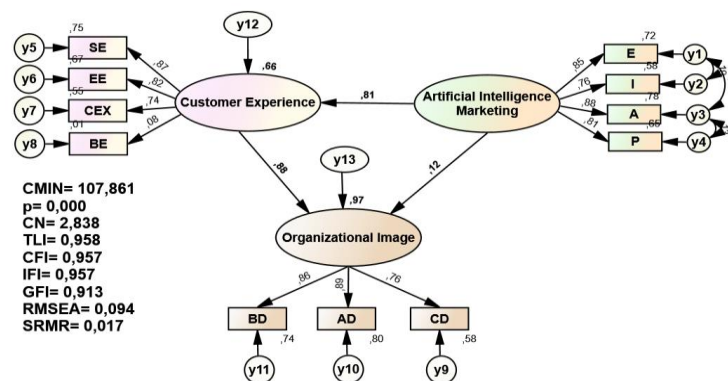
Testing the Third Hypothesis

The third hypothesis can be tested based on the null and alternative hypotheses as follows:

H0: There is no statistically significant indirect effect of artificial-intelligence marketing on the mental image of shared-transport companies through smart applications in Algeria, with customer experience acting as a mediating variable, at a significance level of 0.05.

H1: There is a statistically significant indirect effect of artificial-intelligence marketing on the mental image of shared-transport companies through smart applications in Algeria, with customer experience acting as a mediating variable, at a significance level of 0.05.

Figure 4: The structural (path) model for testing the indirect effect of artificial intelligence marketing on the mental image of shared transport companies through smart applications in Algeria, with customer experience as a mediating variable.



Source: Prepared by the researcher based on the results of AMOS V.24.

Table 13: Test of the indirect effect of artificial intelligence marketing on the mental image of shared transport companies through smart applications in Algeria, with customer experience as a mediating variable.

Test of the indirect (mediated) effect before bootstrapping.	Indirect effects results	
	AI Marketing	
	Organizational Image	0,715
Test of the indirect (mediated) effect after bootstrapping	Indirect effects – lower bounds:	
	Organizational Image	0,572
	Indirect effects – upper bounds:	
	Organizational Image	0,923
	Indirect effects – two-tailed significance	
	Organizational Image	0,000

Source: prepared by the researcher based on the results of AMOS V.24.

Figure 4 shows that all the model-fit quality indicators for the structural model fall within acceptable limits, indicating the statistical adequacy of the model in measuring the relationships among the three variables: Artificial-intelligence marketing (AIM) as the independent variable, customer experience (CE) as the mediating variable and organisation's mental image (OI) as the dependent variable.

The results of the structural analysis show that artificial-intelligence marketing has a strong positive effect on customer experience, with a standardised path coefficient of $\beta = 0.81$. This suggests that adopting AI-based marketing technologies can significantly improve customer experience by strengthening interaction with digital services, personalising offers and enhancing responsiveness to users' needs through smart applications. The analysis also indicates that customer experience has a strong positive effect on mental image, with a standardised coefficient of $\beta = 0.88$. This reflects the fact that improving the customer experience directly contributes to strengthening users' positive impressions and building a strong mental image of the companies under study.

In contrast, the results show that artificial-intelligence marketing has a relatively weak direct effect on the organisation's mental image, with a standardised coefficient of $\beta = 0.12$. This suggests that improving mental image through artificial-intelligence marketing is not solely achieved through a direct pathway, but rather through the mediating role played by customer experience in this relationship. Furthermore, the coefficient of determination reveals that artificial intelligence marketing explains 66% of the variance in customer experience, whereas the independent variables in the model explain 97% of the variance in the organisation's mental image. This reflects the high explanatory power of the proposed structural model.

The results of the bootstrapping test show that the indirect effect of artificial intelligence marketing on the organisation's mental image via customer experience is 0.715 prior to applying bootstrapping. After bootstrapping, the confidence interval ranges between 0.572 and 0.923, with statistical significance indicated by Sig = 0.000, which is lower than the adopted significance level

of 0.05. These results confirm the presence of a statistically significant mediating effect of customer experience in the relationship between artificial intelligence marketing and the mental image of shared transport companies through smart applications.

As can be seen from the above, artificial-intelligence marketing has a positive effect on the mental image of shared-transport companies by enhancing customer experience through smart applications. This highlights the crucial role of customer experience in improving perceptions and trust in the company, and in increasing engagement and satisfaction with the services provided via smart applications. Accordingly, the null hypothesis is rejected and the alternative hypothesis is accepted: there is a statistically significant indirect effect of artificial intelligence marketing on the mental image of shared transport companies in Algeria through smart applications, with customer experience acting as a mediating variable at a significance level of 0.05.

Conclusion

The study concluded that artificial-intelligence marketing is an important factor in improving the customer experience of shared transport companies in Algeria through smart applications. It also showed that the customer experience provided by these companies plays a key role in enhancing their mental image. The results further confirmed that the effect of artificial intelligence marketing on the organisation's mental image is not limited to direct influence; it also occurs by improving the customer experience. This suggests that the marketing value of artificial intelligence is not merely realised through the adoption of modern technologies, but to a greater extent through its ability to create a positive customer experience, which is reflected in customers' mental image of the organisation.

In light of these results, the following recommendations can be proposed:

- Expanding the implementation of artificial-intelligence marketing technologies within the marketing practices of shared-transport companies through smart applications.
- Ensuring continuous improvement of the customer experience to support the adoption of smart technologies by these companies.
- Working to develop smart applications that provide accurate information, are easy to use and respond quickly.
- Focusing on offering more personalised promotions and services that align with customers' needs and preferences.
- Recognising the necessity of investing in artificial intelligence from a technical perspective and using it to create real value for customers, thereby contributing to a positive image of these companies.

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