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# Analyzing the Impact of Human Resource Investment and Voice Advertising on Purchasing Behavior: An Accounting Perspective for Interpreting Added Intangible Value

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## Abstract:

This study aims to analyze the indirect impact of both human resource investment (specifically through training and development) and voice advertising on consumer purchasing decisions, from an accounting perspective that seeks to interpret the resulting intangible added value. A quantitative approach was adopted, relying on a structured questionnaire as the primary data collection tool. The sample included 474 consumers from Eastern Algeria. Structural Equation Modeling (SEM) was employed using AMOS.v23 to examine the relationships among variables. The findings revealed no statistically significant direct relationships between the independent variables (human resource investment and voice advertising) and purchasing decisions. However, the study identified significant indirect effects mediated by improved marketing strategies, credibility, and innovation in advertising. These results suggest that the real impact of human resource investment and modern advertising tools emerges only within an integrated marketing framework grounded in creativity and credibility. Such an approach contributes to the generation of intangible added value, such as strengthened customer loyalty and enhanced corporate image. The study underscores the importance of incorporating these dimensions into modern accounting reports to align with evolving economic contexts and to enhance accounting's capacity to assess the comprehensive market value of organizations.

**Keywords:** Human Resource Investment, Voice-Over Advertising, Intangible Value, Purchasing Decision, Marketing Strategies.

## 1. Introduction:

In recent decades, the business environment has undergone a profound transformation due to rapid technological advancements and the shift towards a knowledge- and innovation-based digital economy. In this new environment, traditional performance indicators are no longer sufficient to measure an organization's success or determine its market value. Instead, there is a growing need to focus on intangible assets, with human competencies, innovation capacity, and the quality of organizational communication being at the forefront. These transformations have prompted accounting thought to reconsider how to measure and interpret returns associated with intangible activities, particularly those related to modern marketing, including voice advertising tools and the professional utilization of human resources.

In this context, voice-over has emerged as one of the most prominent communication tools in advertising campaigns, due to its ability to enhance the attractiveness of marketing messages, build emotional connections with consumers, and increase the credibility of the presented content. Unlike

purely textual or visual media, voice—through its tone, rhythm, and personality—can create a deep psychological impact, making it a strategic element that should be professionally integrated into digital marketing plans. However, this effect is not automatic; it requires systematic investment in specialized human resources, whether through training, continuous development, or the employment of professional expertise in voice-over advertising.

Nevertheless, in practical terms, especially within the Algerian context, many organizations still approach these resources from a traditional perspective that does not align with current changes. The documentation and assessment of the true returns from these investments are often neglected within their accounting systems. Voice-over, despite being an intangible asset, can influence purchasing decisions, enhance brand loyalty, and contribute to improving the organization's image—economic outcomes that should be considered when evaluating overall financial performance.

Thus, this study presents a dual perspective, combining the marketing dimension of understanding consumer behavior with the accounting dimension of interpreting the intangible returns associated with investment in voice and communication competencies. The study is directed towards analyzing the indirect impact of both human resource investment and voice-over advertising on purchasing behavior, through the mediating role of improved marketing strategies on one hand, and enhanced credibility and innovation in advertising on the other.

This approach offers an entry point for understanding how communication activities—often categorized as unmeasurable operational expenses—can be transformed into strategic assets that enhance organizational value, if integrated into an analytical accounting framework that aligns with international measurement and disclosure standards.

Therefore, the central research question of the study is:

**To what extent can the indirect return from an organization's investment in voice advertising and human resource development be interpreted as a meaningful added value from an accounting perspective, despite not being reflected in traditional financial statements?**

### **1.1 Study Background:**

In light of the profound transformations occurring in the contemporary global economy, tangible assets are no longer the sole foundation for creating value within organizations. Intangible assets, primarily human resources and innovative marketing practices, have increasingly played a pivotal role in shaping competitive advantage and building symbolic and organizational capital for institutions. It has become widely accepted that human competencies—comprising skills, experiences, and the capacity for creativity and communication—are among the most significant drivers of added value, particularly in environments that depend on knowledge and innovation.

Within this context, new marketing tools such as voice advertising, content marketing, and influencers have emerged. These tools not only aim to attract consumers but also work to establish emotional and behavioral connections that enhance purchase intent and support brand image. However, the fundamental accounting challenge lies in the difficulty of measuring these activities within traditional frameworks, posing methodological challenges regarding how to recognize and disclose them as added economic value.

This study aims to explore the compounded effect of an organization's investment in its human capital, along with the adoption of voice advertising as a marketing tool, on consumer behavior. Through an analytical approach, the study highlights the non-traditional accounting dimensions of this effect, seeking to expand the accounting understanding of the concept of value beyond what can be numerically expressed in financial statements.

## **2. Literature Review**

### **2.1 Human Resource Investment in Voice Advertising**

Human capital represents one of the intangible assets that contemporary accounting strives to measure and disclose accurately, due to its significant impact on value creation within organizations (El-Mousawi &Kanso, 2019). The accounting focus has shifted from tangible to intangible assets, such as knowledge, skills, creativity, and the ability to innovate, which are embodied by human resources (Garanina et al., 2021). Human capital can be viewed as a blend of understanding, skills, experiences, talent, and technical abilities of employees, which are directed towards generating added value to products or services (Šebestová & Popescu, 2022). In this context, investment in human resources for voice advertising involves the employment of specialized individuals, such as voice-over artists, who possess skills that significantly influence the effectiveness of the advertising message. Whether this hiring occurs directly or through a voice agency, such an investment is essential to ensure the enhancement of advertising campaign effectiveness and its impact on consumer behavior, thus contributing to improving the return on investment (ROI) through the emotional effect they create on the target audience. According to Alburger (2023), the voice-over artist forms an integral part of the brand's sonic identity, contributing to the improved recall of the advertising message and increasing engagement with the promoted content.

### **2.2 The Impact of Human Resource Investment in Voice Advertising on Consumer Behavior**

Within the framework of modern managerial accounting, voice-over services can be classified as intangible assets related to marketing, which contribute to supporting strategic decision-making and enhancing return on investment (ROI). Although these services are not typically listed explicitly in financial statements, they function similarly to other intangible marketing elements such as branding and advertising, due to their influence on consumer behavior and the creation of a strong brand image (Spence & Keller, 2023). Accounting literature has shown that investment in intangible assets, especially those related to customer communication, can significantly improve an organization's performance and market value if used strategically and professionally (Hussinki, King, Dumay, &Steinhöfel, 2025). Voice-over advertisements represent a form of indirect investment in creating added value for the customer by influencing their decisions and purchasing tendencies, which positively impacts the overall financial performance of the organization. In highly competitive digital environments, voice has become an effective tool for delivering marketing messages in a human and emotional manner, which increases the likelihood of engagement with the advertisement and improves marketing performance indicators (Smith & Johnson, 2023). The interpretation of the intangible returns from voice advertising investment is complex but feasible through the adoption of advanced accounting tools such as cost-benefit analysis and indirect return analysis. Through these tools, organizations can track and evaluate the

relationship between spending on voice advertising and increases in interaction rates and sales, which helps assess the effectiveness of these investments through both quantitative and qualitative indicators.

The intangible returns from voice advertising investment are part of the organization's intangible assets. By analyzing these returns, accounting conclusions can be drawn to support marketing management decisions in improving advertising strategies and enhancing the efficiency of marketing campaigns. For example, a study by Wang, Zhang, and Jiang (2024) indicates that the emotional interaction resulting from the use of human voice contributes to stimulating purchasing behavior, thereby enhancing long-term investment return.

This approach paves the way for reclassifying some components of marketing expenditure as strategic investments with lasting impact, rather than simply considering them as operational expenses. Therefore, integrating voice-over within the analytical accounting framework can contribute to more accurate decisions regarding the feasibility of continuing with these communication tools or modifying their components based on the returns generated.

### **2.3 Professional Training and Development of Voice-Over Artists as an Intangible Investment**

Professional training and development for voice-over artists are considered crucial factors in improving the quality of advertising messages. Recent literature suggests that regular training enhances vocal performance efficiency, contributing to the improvement of delivery tone, rhythm control, and emotional expression—all elements that directly affect consumer engagement with the audio content. This, in turn, strengthens the effectiveness of the advertising message and increases its influence on the behavior of the target audience (Timmermans, Bodt, Wuyts, & Heyning, 2015).

From an accounting perspective, training expenses for voice-over artists can be viewed as an investment in human capital, rather than just operational expenditures. This investment is classified among intangible assets that contribute to enhancing an organization's competitive edge (Bilan et al., 2019), while also supporting the long-term sustainability of marketing performance. Each improvement in the voice-over artist's functional performance leads to an enhancement in the quality of the final advertising product, thus strengthening the organization's market value and supporting its strategic decisions.

### **2.4 Enhancing Marketing Strategies through Human Investment in the Contemporary Organizational Context**

In light of the rapid transformations within the digital environment, organizations are now confronted with the necessity to redefine their marketing tools beyond the traditional concepts associated with advertising campaigns and direct promotional methods. Within this context, content creation and influencer marketing are regarded as contemporary strategies primarily dependent on the human element's efficiency, its symbolic influence, and its ability to generate intangible value within the organization.

Recent literature indicates that digital content production is no longer a neutral marketing activity; it has become an institutional communication process requiring high-level skills in crafting and influencing, enabling organizations to engage with their audiences through innovative and flexible approaches (Arriagada, 2021). Influencer marketing, in particular, is viewed as an informal communication channel based on credibility and social proximity, contributing to reshaping the

audience's perception of the brand in ways that are difficult to achieve through traditional advertising (Durmishi&Durmishi, 2024; Pushparaj & Kushwaha, 2024).

Despite the intangible nature of these practices, they are closely linked to contemporary accounting thought's trend towards broadening the scope of organizational value to encompass intangible and knowledge-based assets that are challenging to directly quantify in monetary terms. Specifically, (Lev, 2021) suggests that these activities can be viewed as implicit indicators of what is known as "accumulated organizational value" or "symbolic capital," whose effects are manifested in the organization's image, stakeholder trust, and community engagement levels—elements that are closely tied to the foundation of institutional sustainability, yet remain outside the traditional accounting framework (Brătianu&Bejinaru, 2020).

This approach reflects, on one hand, the need to develop accounting disclosure systems to become more inclusive of non-financial indicators, and on the other hand, contributes to guiding field research toward studying the organizational impact of these strategies in real-world contexts. From this perspective, monitoring the perceptions of employees and specialists regarding the effectiveness of these practices is a methodological step towards building a theoretical framework to understand the intangible value generated by contemporary organizations through their human resources and non-traditional marketing strategies.

### **3. Methodological Procedures for the Field Study:**

#### **3.1 Study Population and Sample:**

The study population and sample consist of individuals and companies who follow advertisements. For the purpose of this study, a random sample of 474 individuals was selected. An electronic questionnaire was created and distributed to the sample via social media accounts and email. A total of 483 questionnaires were collected, of which 9 were excluded, resulting in 474 valid questionnaires that were suitable for statistical analysis.

#### **3.2 Data Collection Tools:**

The study relied on a questionnaire divided into two sections:

- **Section One:** Contains general data about the study sample members, including gender, age, educational level, and profession.
- **Section Two:** Contains 47 statements representing the perceptions of the study sample members regarding the importance of voiceover in advertisements, including the various human resources invested in it through training and skill development, as well as its impact on increasing consumer attachment to the brand, enhancing the credibility of the advertisement, and innovating advertising messages by improving marketing strategies. These statements were distributed across five main areas as follows:
  - o **First Area:** Relates to the first independent variable, "Audio and Advertising Impact," including statements (1-12), as follows:
    - (1-3) Attention-Attracting
    - (4-6) Message Clarity

- (7-9) Emotional Response
- (10-12) Persuasion and Message Effectiveness
- **Second Area:** Relates to the second independent variable, "Investment in Human Resources Training and Development," including statements (13-18), as follows:
  - (13-15) Professional Training and Development
  - (16-18) Human Resources Usage Strategies
- **Third Area:** Relates to the mediating variable, "Improvement of Marketing Strategies," including statements (19-35), as follows:
  - (19-21) Innovation in Marketing Strategies
  - (22-24) Targeting of Advertising Messages
  - (25-27) Personalization of Advertising Based on Audience Needs
  - (28-32) Influencer Marketing
  - (33-35) Content Creation
- **Fourth Area:** Relates to the first dependent variable, "Purchase Decisions," including statements (36-41), as follows:
  - (36-38) Final Purchase Decision
  - (39-41) Brand Loyalty
- **Fifth Area:** Relates to the second dependent variable, "Credibility and Innovation in Advertising," including statements (42-47), as follows:
  - (42-44) Credibility in Advertising
  - (45-47) Innovation in Advertising Style

The survey relied on a five-point Likert scale (Strongly Disagree, Disagree, Slightly Agree, Agree, Strongly Agree), corresponding to the weights (1, 2, 3, 4, 5) respectively. The evaluation degree was determined across five ranges: ]1 – 1.80] for Strongly Disagree, ]1.80 – 2.60] for Disagree, ]2.60 – 3.40] for Neutral, ]3.40 – 4.20] for Agree, and ]4.20 – 5[ for Strongly Agree.

### 3.3 Validity and Reliability of the Measurement Tool:

- **Construct Validity:** To assess construct validity and determine the validity of the construct (concept) for each item in the scale and its relevance to its various indicators, confirmatory factor analysis was conducted using Amos.v.23 software. Prior to this, the variables and dimensions of the study were coded as shown in the following table:

**Table 1.** Codes for the Variables and Dimensions of the Study

Variable	Dimension	Code
<b>Audio and Advertising Impact (AAI)</b>	Attention-Attracting	ATT
	Message Clarity	MC
	EmotionalResponse	ER
	Persuasiveness and Message Effectiveness	PE
<b>Human Resource Investment in Training and Development (HRITD)</b>	Professional Training and Development	PTD
	Human Resource UtilizationStrategies	HRUS
<b>Marketing StrategyEnhancement (MSE)</b>	Innovation in Marketing Strategies	IMS
	Targeting of Advertising Messages	TA
	Personalization of Advertising Based on Audience Needs	PA
	Influencer Marketing	IM
	Content Creation	CC
<b>PurchaseDecisions (PD)</b>	Final PurchaseDecision	FPD
	Brand Loyalty	BL
<b>Credibility and Innovation in Advertising (ACI)</b>	Advertising Credibility	AC
	Innovation in Advertising Style	IAS

*Source:Prepared by the Researcher*

### 3.4 Results of the Confirmatory Factor Analysis

According to the general rule proposed by Hair, factor loadings are deemed acceptable when their values are equal to or greater than 0.50. Furthermore, model estimates should be statistically significant at the level of  $p < 0.001$ , and critical ratio (C.R.) values must exceed 1.96. Using Structural Equation Modeling (SEM) allows researchers to assess **Goodness of Fit** indices to determine how well the proposed model fits the observed data. These indices were examined using *Amos v.23*. A good fit for these indices indicates that the model is highly accurate, whereas poor fit indices may justify rejecting the model. The commonly accepted thresholds for these indicators are presented in Table 2:

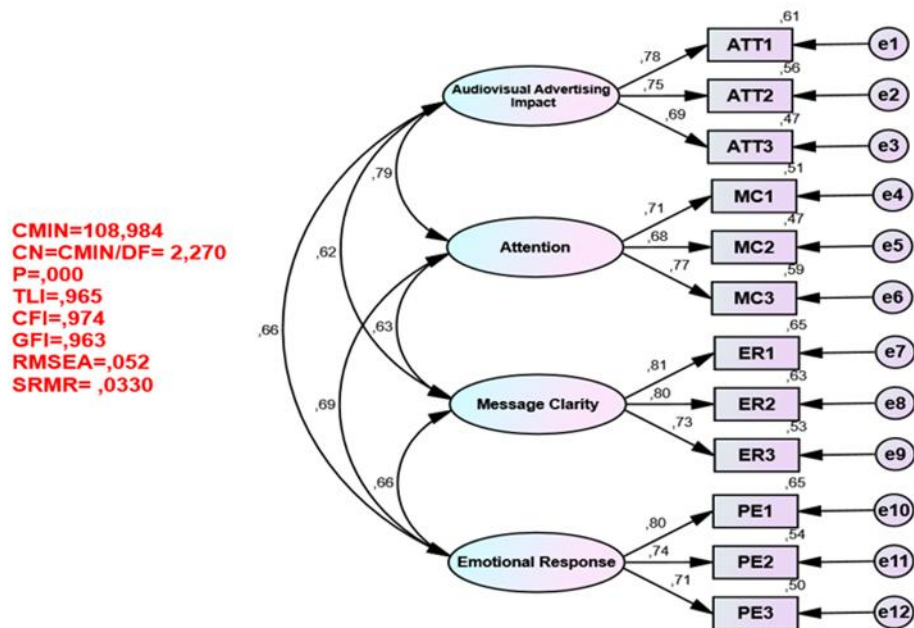
**Table 2.** Goodness-of-Fit Indices

Index	RecommendedThreshold
<b>Chi-Square (CMIN)</b>	Non-significant values are preferable; high values indicate poor fit
<b>CMIN/DF</b>	< 5 indicates acceptable to good fit
<b>GFI</b>	GFI $\geq 0.90$ indicatesbetter fit
<b>TLI</b>	TLI $\geq 0.95$ indicatesbetter fit
<b>CFI</b>	CFI $\geq 0.95$ indicatesbetter fit
<b>RMSEA</b>	$0.05 \leq \text{RMSEA} \leq 0.08$ indicatesbetter fit
<b>SRMR</b>	SRMR $\leq 0.05$ indicatesbetter fit

*Source: Kline (2023)*

**– Confirmatory Factor Analysis Results for the Audio and Advertising Impact Dimension:**

The results are illustrated in the following figure:



**Figure 1.** Confirmatory Factor Model for the Audio and Advertising Impact Dimension

Based on the preceding figure, it is evident that all items exhibit confirmatory factor analysis (CFA) loadings above the minimum threshold of 0.50, ranging from 0.683 to 0.807, indicating their suitability for further statistical analyses. Moreover, the Amos.v.23 output confirms that all parameter estimates for the Audio and Advertising Impact dimension are statistically significant at the  $p < 0.001$  level, with critical ratio (C.R) values exceeding 1.96.

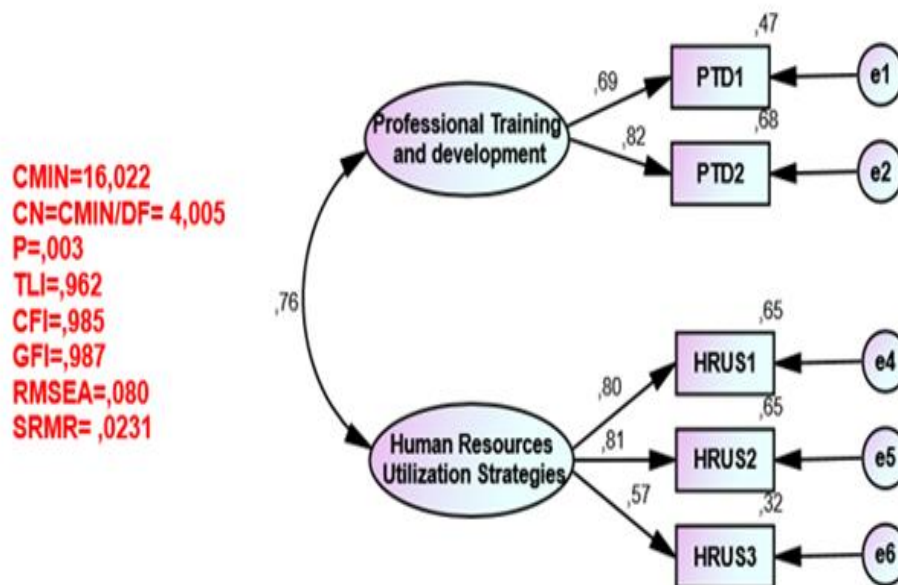
Additionally, as shown in Figure 1 and in comparison, with the recommended fit indices presented in Table 2, the model demonstrates acceptable goodness-of-fit, with all indices falling



within the ideal ranges—except for the Chi-square ( $\chi^2$ ) statistic, which is significant at 0.000, below the conventional significance level of 0.05. This outcome is expected due to the Chi-square's sensitivity to sample size. Accordingly, the model is deemed reliable. In other words, the dimensions of attention attraction, message clarity, emotional response, and message persuasiveness and effectiveness collectively represent the construct of "Audio and Advertising Impact."

**- Confirmatory Factor Analysis Results for the Dimension of Human Resource Investment in Training and Development:**

Confirmatory factor analysis (CFA) was conducted for this dimension, as illustrated in Figure 2 below:



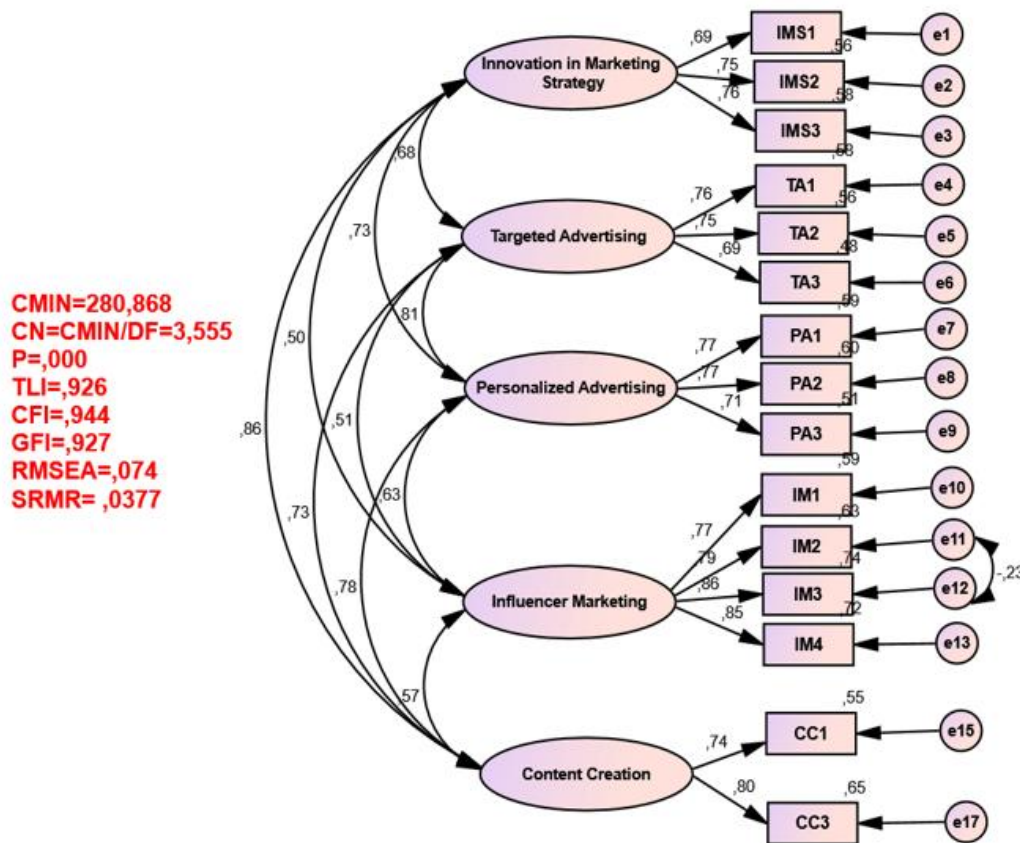
**Figure 2:** *Confirmatory Factor Model for the Dimension of Human Resource Investment in Training and Development*

Based on the previous figure, one item (PTD3) was removed due to its confirmatory factor loading being below the minimum acceptable threshold of 0.50. The remaining items all exceeded this threshold, with factor loadings ranging from 0.568 to 0.823, making them suitable for subsequent statistical analyses. The Amos output also indicates that all parameter estimates for the Human Resource Investment in Training and Development construct are statistically significant at the  $p < 0.001$  level, and that all critical ratio (C.R.) values exceed 1.96.

Furthermore, the figure shows that the model's goodness-of-fit indices are acceptable when compared to the reference values listed in Table 2. Therefore, the confirmatory factor model for this dimension is deemed to exhibit a good fit, except for the Chi-square statistic, which was significant at 0.000—below the accepted significance level of 0.05—due to its sensitivity to sample size. Consequently, the model can be considered valid, indicating that the dimensions of Professional

Training and Development and Human Resource Utilization Strategies effectively represent the broader construct of Human Resource Investment in Training and Development.

- **Confirmatory Factor Analysis Results for the Marketing Strategy Enhancement Construct:** As illustrated in the following figure:

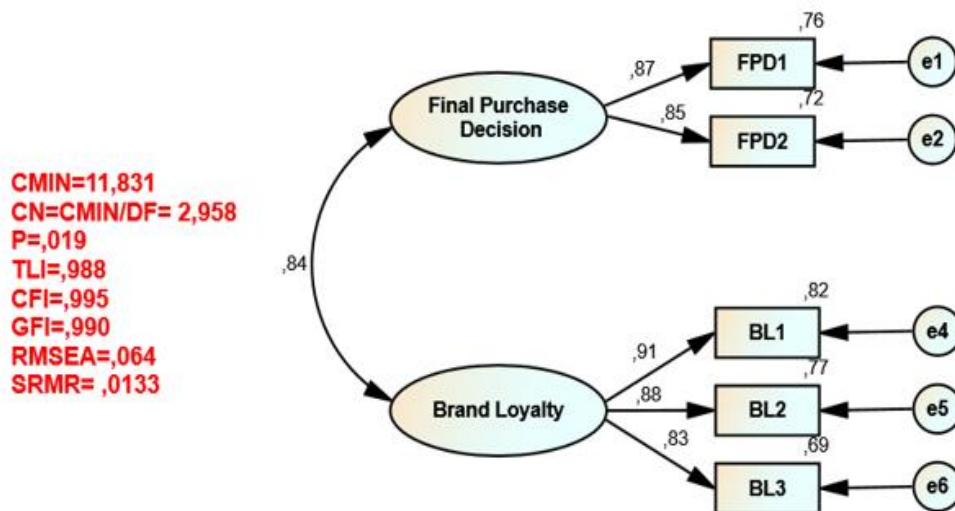


**Figure 3.** Confirmatory Factor Model for the Marketing Strategy Enhancement Construct

Based on the preceding figure, the items with confirmatory factor analysis (CFA) values below 0.5—namely *IM5* and *CC2*—were removed. The remaining items showed factor loadings ranging between 0.691 and 0.859, indicating their suitability for subsequent statistical analyses. The output of the AMOS software revealed that all parameter estimates for the *Marketing Strategy Enhancement* model were statistically significant at the level of  $p < 0.001$ , and that all Critical Ratio (C.R.) values exceeded the threshold of 1.96.

Moreover, the model's goodness-of-fit indicators were found to be acceptable when compared to the criteria outlined in Table 2, suggesting that the confirmatory factor model for this construct demonstrates a good fit. However, the Chi-square indicator was significant at 0.000, which is below the acceptable significance level of 0.05—likely due to the sensitivity of this indicator to sample size. Despite this, the model can be deemed valid and reliable. This confirms that the dimensions of innovation in marketing strategies, targeting advertising messages, customizing ads to audience needs, influencer marketing, and content creation are valid components representing the construct of Marketing Strategy Enhancement.

- **Confirmatory Factor Analysis Results for the Purchase Decisions Construct:** As illustrated in the following figure:



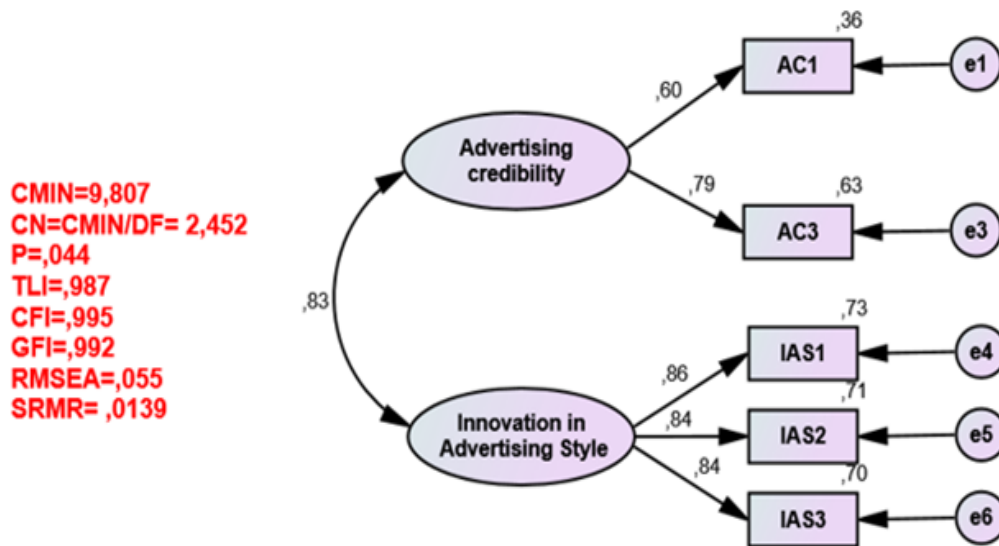
**Figure 4.** Confirmatory Factor Model for the Purchase Decisions Construct

Based on the preceding figure, the item FPD3 was removed due to its confirmatory factor loading falling below the threshold of 0.5. The remaining items have loading values ranging from 0.863 to 0.937, indicating that they are suitable for subsequent statistical analyses. The output from the AMOS software shows that all parameter estimates for the purchase decisions construct are statistically significant at the  $p < 0.001$  level, with Critical Ratio (C.R.) values exceeding 1.96.

Furthermore, the goodness-of-fit indices shown in the figure are consistent with the acceptable thresholds listed in Table 2, suggesting that the confirmatory factor model for the purchase decisions construct demonstrates good model fit. The only exception is the Chi-square statistic, which is significant at 0.000—below the accepted significance level of 0.05—likely due to its sensitivity to sample size. Nevertheless, the model can be considered reliable. In other words, both the final purchase decision and brand loyalty serve as dimensions that constitute the construct of purchase decisions.

- **Confirmatory Factor Analysis (CFA) Results for the Axis of Credibility and Innovation in Advertising:**

As illustrated in the following figure:



**Figure 5.** *The Confirmatory Factor Model for the Credibility and Innovation in Advertising Dimension*

Based on the figure above, the item AC2 was removed due to its confirmatory factor loading being below the threshold of 0.5. The remaining items exhibited factor loadings ranging between 0.598 and 0.856, indicating their suitability for subsequent statistical analyses. The output of the AMOS software reveals that all parameter estimates for the “Credibility and Innovation in Advertising” construct are statistically significant at the  $p < 0.001$  level, with critical ratios (C.R) exceeding 1.96.

Moreover, the figure demonstrates that the model’s goodness-of-fit indices are satisfactory when compared to the criteria listed in Table 2. Hence, the confirmatory factor model for this construct is considered acceptable, having achieved strong fit indicators except for the chi-square statistic, which is significant at 0.000. This is below the conventional significance level of 0.05 and is likely influenced by the sample size. Therefore, the model can be deemed reliable. It suggests that both “advertising credibility” and “innovation in advertising style” are key dimensions that define the construct of “Credibility and Innovation in Advertising.”

### 3.5 Reliability of the Measurement Instrument

To assess the internal consistency of the questionnaire, Cronbach's Alpha coefficient was utilized. The analysis yielded a Cronbach's Alpha value of 0.956 for the 42 items retained after the confirmatory factor analysis, out of an initial total of 47 items. This value substantially exceeds the commonly accepted reliability threshold of 0.60, indicating a high level of internal consistency and supporting the reliability of the measurement instrument used in this study.

## 4. Results

### 4.1 Normality Test

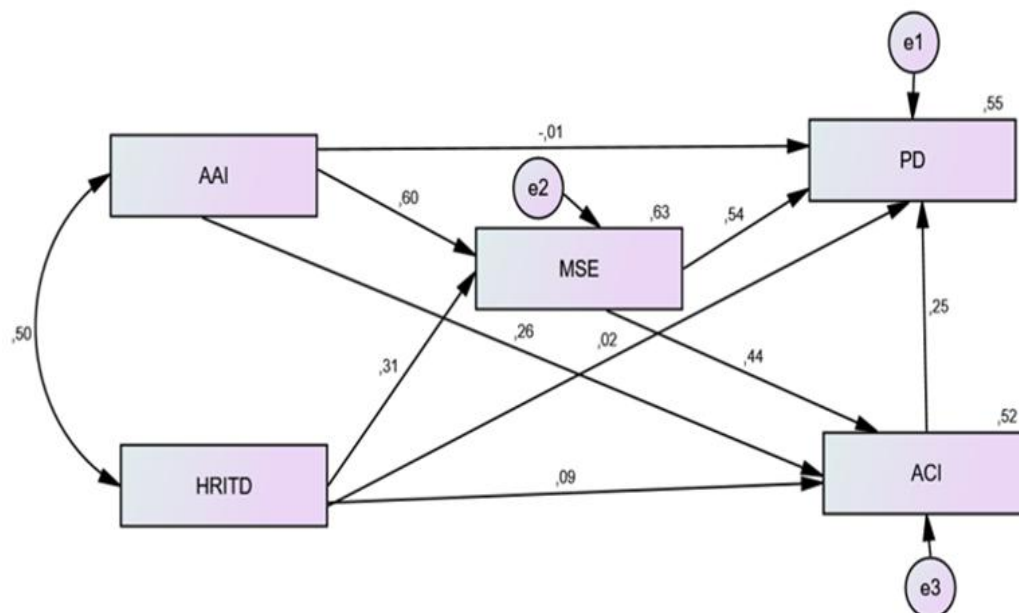
Before testing the hypotheses, it is necessary to verify the normal distribution of the data. This was conducted using skewness and kurtosis coefficients via the AMOS software. According to the outputs, all skewness and kurtosis values for the dataset fall within the acceptable range of normal distribution  $[-1.96; +1.96]$ , based on the guideline suggested by Hair et al. This indicates that the data related to the five study constructs (Audio and Advertising Influence, Human Resource Investment in Training and Development, Marketing Strategy Improvement, Purchase Decisions, and Credibility and Innovation in Advertising) are suitable for conducting subsequent statistical analyses for hypothesis testing.

## 4.2 Hypothesis Testing Results

To test the direct, indirect, and total hypotheses of the study, the Regression Weights method was applied. This approach provides the Estimate Regression, indicating the extent to which the independent variable explains the dependent variable, as well as the Critical Ratio (CR), which corresponds to the t-value and reflects the level of difference between standard errors. For a hypothesis to be accepted, the CR value must exceed 1.96 with a significance level of  $p < 0.05$ .

Structural Equation Modeling (SEM) was employed, utilizing goodness-of-fit indices and relying on Path Analysis using AMOS v.23 to examine the existence of indirect effects. Specifically, the indirect impact of the independent variables Audio and Advertising Influence, and Human Resource Investment in Training and Development on the dependent variables Purchase Decisions and Credibility and Innovation in Advertising was tested through the mediating variable Marketing Strategy Improvement, from the perspective of customers in the eastern region of Algeria.

This is illustrated in the theoretical model of the study presented below:



**Figure 6.** Proposed Conceptual Model of the Study

**Table 3.** Standardized and Unstandardized Estimates

			Standardized Regression Weights Estimate	Regression Weights Estimate	S.E.	C.R.	P
MSE	<---	HRITD	,305	,286	,030	9,438	***
MSE	<---	AAI	,596	,562	,031	18,429	***
ACI	<---	MSE	,442	,507	,060	8,471	***
ACI	<---	AAI	,264	,286	,052	5,501	***
ACI	<---	HRITD	,093	,100	,043	2,327	,020
PD	<---	ACI	,246	,334	,061	5,476	***
PD	<---	MSE	,538	,837	,085	9,846	***
PD	<---	AAI	-,006	-,008	,071	-,114	,910
PD	<---	HRITD	,020	,029	,057	,505	,614

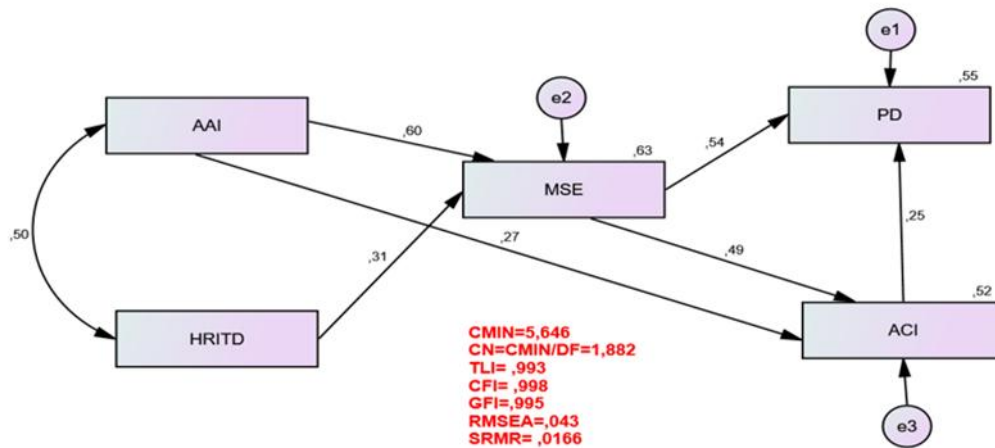
*Source: Data processed using AMOS.v23*

Based on the results shown in the figure and Table 3, it is evident that some of the direct relationship hypotheses were not statistically significant at the level of significance  $p < 0.001$ . The non-significant direct effects are as follows:

- There is no statistically significant direct effect of audio and advertising influence (AAI) on purchase decisions (PD) from the perspective of customers in Eastern Algeria.
- There is no statistically significant direct effect of human resources investment in training and development (HRITD) on purchase decisions (PD) from the perspective of customers in Eastern Algeria.
- There is no statistically significant direct effect of human resources investment in training and development (HRITD) on advertising credibility and innovation (ACI) from the perspective of customers in Eastern Algeria.

Since these paths are not statistically significant, they were removed and the model was modified accordingly to yield the final adjusted path analysis model.





**Figure 7.** Final Adjusted Path Analysis Model

**Table 4.** Standardized and Unstandardized Estimates for the Modified Model

			Standardized Weights Estimate	Regression Estimate	Regression Estimate	Weights	S.E.	C.R.	P
MSE	<---	AAI	,596		,562		,031	18,429	***
MSE	<---	HRITD	,305		,286		,030	9,438	***
ACI	<---	MSE	,490		,562		,055	10,186	***
ACI	<---	AAI	,275		,297		,052	5,710	***
PD	<---	MSE	,545		,848		,067	12,623	***
PD	<---	ACI	,247		,336		,059	5,727	***

Source: Data processed using AMOS.v23.

Based on the preceding figure and table, and according to the extracted goodness-of-fit indices illustrated in the previous figure, the model has demonstrated acceptable fit and can thus be considered reliable for testing the study's indirect hypotheses. Furthermore, it is evident from both the table and figure that the estimates of the modified model are statistically significant for all variables, as the Critical Ratio (CR) values exceed 1.96 and the p-values are equal to 0.000, which is well below the accepted threshold of 0.05 ( $p < 0.001$ ). This indicates the following:

- There is a statistically significant indirect effect of auditory and advertising impact on improving purchasing decisions from the perspective of customers in Eastern Algeria, mediated by marketing strategy enhancement.
- There is a statistically significant indirect effect of auditory and advertising impact on improving purchasing decisions from the perspective of customers in Eastern Algeria, mediated by both marketing strategy enhancement and advertising credibility and innovation.

- There is a statistically significant indirect effect of human resources investment in training and development on improving purchasing decisions from the perspective of customers in Eastern Algeria, mediated by marketing strategy enhancement.
- There is a statistically significant indirect effect of human resources investment in training and development on improving purchasing decisions from the perspective of customers in Eastern Algeria, mediated by both marketing strategy enhancement and advertising credibility and innovation.

It is also worth noting that the two independent variables auditory and advertising impact, and human resources investment in training and development together explain 55% of the variance in the dependent variable, purchasing decisions, in the presence of the two mediating variables: marketing strategy enhancement and advertising credibility and innovation. The remaining 45% of the variance is attributed to other unexamined factors.

The following table presents the direct, indirect, and total effects between the study variables as follows:

**Table 5:** Direct, Indirect, and Total Effects of the Variables “Auditory and Advertising Impact (AAI)” and “Human Resources Investment in Training and Development (HRITD)” on the Dependent Variable “Purchasing Decisions (PD)” Through the Mediating Variables “Marketing Strategy Enhancement (MSE)” and “Advertising Credibility and Innovation (ACI)”

	Indirect Effect				Direct Effect				Total Effect			
	HRITD	AAI	MSE	ACI	HRITD	AAI	MSE	ACI	HRITD	AAI	MSE	ACI
<b>MSE</b>	0.000	0.000	0.000	0.000	0.305	0.596	0.000	0.000	0.305	0.596	0.000	0.000
<b>ACI</b>	0.150	0.292	0.000	0.000	0.000	0.275	0.490	0.000	0.150	0.567	0.490	0.000
<b>PD</b>	0.203	0.465	0.121	0.000	0.000	0.000	0.545	0.247	0.203	0.465	0.666	0.247

*Source: Data processed using AMOS.v23.*

## 5. Discussion

The findings of this study reveal statistically significant indirect effects between the independent variables namely, audio advertising and investment in human resources through training and development and the dependent variable, which is consumer purchasing decisions. These relationships are mediated by two key factors: the improvement of marketing strategies and the enhancement of credibility and innovation in advertising. While some direct effects were not evident, the observed indirect effects are meaningful and point to what is referred to as an intangible return—a form of return not reflected in direct financial indicators, but rather manifested through organizational and behavioral shifts in institutional performance.

### 5.1 The Impact of Human Resource Investment

The study's results indicate that investment in training and developing human capital does not exert a direct impact on purchasing decisions, nor on the perceived credibility or innovativeness of advertising. Nonetheless, such investment significantly contributes to the enhancement of



internal marketing strategies. This suggests that the real return on human capital development is neither immediate nor directly observable, but emerges instead through strategic and organizational improvements that cumulatively and intangibly enhance institutional performance.

This pattern of findings aligns with contemporary developments in accounting and management thought, which increasingly recognize that value creation within organizations extends beyond tangible assets and quantifiable financial outcomes. It encompasses also intangible and organizational elements tied to human resources and institutional innovation. Returns on human capital development may not always appear as explicit figures in financial statements, but they are reflected in more effective marketing performance, improved organizational alignment, and greater adaptability to market dynamics.

In this context, the Balanced Scorecard framework offers an effective tool for assessing and measuring intangible assets such as human capital. This model, which emphasizes four key dimensions—financial performance, customer relations, internal processes, and learning and growth—enables a comprehensive evaluation of an institution's strategic performance. Kaplan and Norton (1996) highlight that intangible assets, such as skills and organizational knowledge, derive their value from their alignment with institutional strategy and their capacity to support critical internal processes.

Accordingly, investment in human capital development can be viewed as an indirect contributor to value creation, preparing the organization to seize market opportunities and strengthen its strategic positioning—even if such contributions are not explicitly reported as separate accounting items. This underscores the need for alternative analytical approaches capable of capturing these extended and often invisible effects, particularly in knowledge- and innovation-driven business environments where human skills and creative practices have become key drivers of institutional excellence and sustainable competitiveness.

## **5.2 The Impact of Audio and Advertising Influence**

Audio advertising, as a component of contemporary corporate communication, was found to have no direct effect on consumer purchasing decisions. However, it played a tangible role in enhancing marketing strategies and reinforcing the credibility of advertising messages. These findings underscore the need to reconsider the traditional accounting treatment of such expenditures, which are typically recorded as operating expenses. In reality, they represent a long-term investment in the organization's brand image and its relationship with consumers.

Within the literature of managerial accounting and integrated reporting, such expenditures are increasingly viewed as part of symbolic intangible assets—elements that influence consumer decision-making and market behavior in ways that are not captured by conventional accounting models. This perspective calls for a more nuanced understanding of how marketing-related investments contribute to organizational value beyond the scope of standard financial statements.

## **5.3 The Significance of the Mediating Variables (MSE and ACI)**

Both the enhancement of marketing strategies (MSE) and the credibility and innovation in advertising (ACI) play a pivotal role in translating indirect effects into tangible outcomes that influence consumer purchasing decisions. This relationship highlights the fact that contemporary

marketing transformations are increasingly driven by strategic dynamics rather than merely operational decisions. Consequently, accounting systems are required to keep pace with these shifts by developing non-financial performance indicators—such as measures of hidden market value and accounts reflecting intellectual capital.

These insights emphasize the growing importance of integrating intangible and knowledge-based dimensions into performance assessment frameworks, thereby ensuring a more comprehensive and accurate representation of organizational value creation.

#### **5.4 The Significance of the Explained Variance in Purchasing Decisions**

According to the final model, the two independent variables account for approximately 55% of the variance in consumer purchasing decisions, assigning considerable relative weight to the role of intangible assets in value creation. The remaining 45% suggests the influence of additional unexamined factors—such as reputation, experience, pricing mix, or the competitive environment—highlighting the need to incorporate such elements into future accounting measurement models.

### **6. Conclusion**

In light of the findings, it becomes evident that content production strategies and brand marketing through influencers—particularly those relying on investments in human capital and voiceover techniques—fall within what may be termed “invisible practices” that generate indirect economic impact beyond the scope of traditional financial evaluation. Although the direct influence of human capital training was not apparent in consumer purchasing behavior, it significantly enhanced the effectiveness of marketing campaigns in terms of message clarity, emotional engagement, and increased trust in advertising content.

This underscores the evolving understanding that the true value of human resources in contemporary organizational contexts is no longer measured solely by direct productive output, but also by their capacity to improve the organizational environment, foster new modes of audience engagement, and contribute to building a sustainable brand image. Accordingly, this study contributes to redirecting academic discourse toward a more holistic accounting and marketing perspective—one that acknowledges the intangible dimension of human capital and its strategic role in shaping institutional structure and market positioning.

Moreover, the exclusion of such outputs from conventional financial statements does not imply an absence of economic impact; rather, it reflects a shortcoming in current accounting tools for measuring and disclosing organizational investments in intangible assets. From this standpoint, the results of this study offer an initial foundation for developing new evaluation models based on integrated performance indicators—models that transcend financial metrics and embrace qualitative and behavioral measures more accurately reflecting the realities of institutions operating within a knowledge-based economy.

### **7. Recommendations**

Based on the preceding analysis, the study puts forward the following recommendations:

- Promote non-traditional measurement methodologies for evaluating marketing campaign performance by incorporating qualitative indicators such as emotional engagement, audience

appreciation of content, and the degree of alignment between human voice and brand identity. This would allow for a more comprehensive assessment of intangible returns.

- Develop alternative accounting disclosure mechanisms that move beyond the conventional structure of financial statements, by introducing supplementary or integrated reports capable of capturing the symbolic and organizational value generated through investments in human capital and media innovation.
- Invest strategically and continuously in the creative skill development of personnel involved in voice production and digital marketing, given the demonstrated indirect role of such investments in enhancing corporate communication quality and increasing audience engagement.
- Support interdisciplinary applied research that bridges the gap between marketing and behavioral dimensions and the accounting representation of intangible returns, leveraging advanced statistical analysis tools and predictive modeling techniques.
- Reframe institutional conceptions of value by adopting a more flexible perspective on the impact of human assets—integrating qualitative dimensions into decision-making processes and the strategic evaluation of organizational performance.

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