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The Use of Social Media on Sales Performance: ISM and SEM Approaches

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Abstract

The purpose of this study was to develop a model for utilizing social media to enhance the sales performance of companies in the medical equipment sector. The qualitative phase of the research involved a purposive sampling of professors and managers from medical equipment companies. The reliability of the measurement instrument was confirmed using the Intraclass Correlation Coefficient (ICC) for consistency. In the quantitative phase, the study targeted sales companies within the medical equipment industry. The optimal sample size, determined using IBM SPSS Sample Power, was estimated at 297 participants. Data analysis in the qualitative phase was conducted using MATLAB for Interpretive Structural Modeling (ISM), while SmartPLS3 was employed for analyzing quantitative data using Structural Equation Modeling (SEM). A standard 5-point Likert scale questionnaire served as the data collection tool. The Mic Mac analysis revealed that the eight factors related to sales performance could be categorized into three groups: independent, dependent, and autonomous variables. Among these, sales performance, selling behavior, social media use, and competitive intelligence were identified as the most influential factors. Conversely, media type and learning goal orientation had the most and least impact, respectively. The quantitative results indicated that the influence of learning goal orientation on attitudes toward social media usefulness was the most robust hypothesis. The sales performance model demonstrated that companies using multiple media channels achieved better results than those utilizing a single medium.

Keywords:
SalesPerformance,Selling Behavior,InterpretiveStructural Modeling (ISM), Structural Equation Modeling (SEM), Social Media

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Introduction

In today's rapidly evolving business environment, characterized by the widespread adoption of social media, there is a pressing need for a comprehensive model to enhance sales performance, particularly within the competitive Iranian market. As companies strive to adapt to these swift changes, ensuring that customers receive appropriate sales services has become crucial (Singh & Venugopal, 2015). Sales performance remains a critical concern for all businesses, with each organization tailoring its sales strategies to deliver greater value to customers and shareholders (Singh et al., 2017). Recent studies underscore the significant impact of social media on sales performance. Over the past few years, social media has increasingly been recognized as a powerful tool for facilitating information exchange between vendors and customers (Ogilvie et al., 2018; Ebrahimi et al., 2020; Khajeheian & Ebrahimi, 2020).

The proliferation of social media has fundamentally altered traditional methods of information searching, buying, and selling, leading to new social and economic dynamics (Algharabat, 2017). Social media, initially designed for personal interactions, has now become essential for organizations. These platforms offer significant benefits, such as attracting new customers, enhancing brand popularity, and building strong customer relationships, which ultimately increase sales and customer loyalty (Yadav & Pavlou, 2014; Goh et al., 2015). Given the substantial investments companies make in various social media platforms, understanding the role of these platforms in business relationships is vital. Managers are increasingly utilizing platforms like Facebook, Twitter, Weibo, and WeChat for business purposes. For example, a McKinsey report indicated that by 2013, over 70% of American companies were engaged in social media marketing, leveraging platforms like Twitter to boost their sales—a trend that has continued to grow (Chen et al., 2019).

Performance is a key construct in managerial research and the most important measure of organizational success (Bhatti et al., 2018). Achieving growth and profitability in the market is a primary objective for all economic institutions, with sales being a critical factor in evaluating these outcomes (Guan & Frenkel, 2018). To increase sales and market share, companies must continuously adapt to customers' evolving expectations and needs from the initial product design to its lifecycle and market introduction. Success is achieved when the sales force effectively implements sales principles and techniques (Terho et al., 2015). Given this context, this research seeks to develop a practical model tailored to the business environment of Iran, a developing country, by analyzing factors influencing sales performance and the role of social media marketing.

Methodology

This study employed a mixed-methods approach, beginning with the identification of the main research variables through a comprehensive review of existing literature. The research model was developed using Interpretive Structural Modeling (ISM) and hypotheses were formulated based on this model and the underlying theoretical framework. The ISM analysis was conducted using MATLAB software. For the quantitative analysis, descriptive statistics were performed using SPSS, while SmartPLS3 was utilized for structural equation modeling (SEM) to explore and test causal relationships among variables.

3.1 Sampling

The qualitative phase of the research, which involved ISM, targeted a purposive sample of 10 experts, including professors, managers, and social media specialists within the medical equipment industry. These experts were selected based on their significant experience—at least 10 years—and their expertise in the intersection of social media and corporate sales performance. Content validity was established through expert review, with a structured questionnaire administered to confirm the accuracy and relevance of the research questions. Sampling continued until theoretical saturation was achieved. To ensure reliability, the Intraclass Correlation Coefficient (ICC) was calculated, confirming the consistency of the experts' evaluations.

In the quantitative phase, the research population comprised companies involved in the sale of laboratory and medical equipment. The sample size was determined using SPSS Sample Power software, which indicated a minimum of 297 participants to achieve a 95% confidence level, 0.95 test power, and an effect size of 0.05, with a simple random sampling technique employed. To account for potential non-responses, 342 questionnaires were distributed, resulting in 330 completed and returned surveys, which were subsequently used for organizational level analysis.

3.2 Interpretive Structural Modeling (ISM)

Interpretive Structural Modeling (ISM) is a method used to map the complex interrelationships among various factors, arranging them into a hierarchical structure (Warfield, 1974). This approach is particularly useful for identifying and visualizing the intricate dependencies between variables (Attri et al., 2013). The ISM process follows these steps (Singh & Kant, 2011):

1. **Identification of Variables:** The first step involves identifying variables that impact the system, including stakeholders, objectives, and tasks.
2. **Development of the Structural Self-Interaction Matrix (SSIM):** This matrix uses specific symbols to indicate the relationship between variables:
    - **V:** If element iii influences element jjj.
    - **A:** If element jjj influences element iii.
    - **X:** If there is a bidirectional influence between elements iii and jjj.
    - **O:** If there is no relationship between elements iii and jjj.
3. **Creation of the Initial Reachability Matrix:** The SSIM symbols are converted into binary values (0s and 1s) to form the initial reachability matrix.
4. **Final Reachability Matrix:** The initial matrix is then refined by considering transitive relationships to produce the final reachability matrix. This matrix helps determine the independence and dependence of each factor.
5. **Determination of Output and Input Sets:** For each factor, output and input sets are derived from the final reachability matrix. The output set includes the factor itself and those it influences, while the input set consists of the factor and those that influence it. Factors with fully aligned output and common sets, and the lowest independence power, are placed at the lowest level of the ISM hierarchy.

6. **Hierarchical Structuring:** The process iteratively removes the highest-level factors identified in each round, repeating until all factors are hierarchically organized.

4. Results

4.1. Model Presentation Using ISM

In this study, the factors influencing the presentation of the model for using social media on sales performance were identified through a comprehensive literature review and the application of expert opinions. The final factors that were selected after these processes are listed in **Table 1**..

Table 1. Factors identified for performing ISM

Symbol	Factors
V1	learning goal orientation
V2	attitude toward social media usefulness
V3	social media use
V4	competitive intelligence collection
V5	selling behavior
V6	Sales performance
V7	Sales-based CRM
V8	Media type

To conduct this research, a structural self-interaction matrix (SSIM) was initially created. This matrix utilizes the VOXA symbols, as described in the previous section. These symbols were employed by experts to extract the self-interaction matrix, as illustrated in **Table 2**.

Table 2. Self-interaction matrix (SSIM)

Factors	V8	V7	V6	V5	V4	V3	V2	V1
V1	O	V	V	O	V	V	O	
V2	A	O	V	O	V	V		
V3	A	A	O	X	X			
V4	A	O	O	O				
V5	A	O	O					
V6	A	O						
V7	A							
V8								

To achieve the initial reachability matrix, the symbols mentioned in **Table 3** must be converted into binary values (0 and 1), as described by the following rules:

- If the input (i, j) in the structural self-interaction matrix is represented by the V symbol, then in the initial reachability matrix, (i, j) will be set to 1 and (j, i) will be set to 0.
- If the input (i, j) in the structural self-interaction matrix is represented by the A symbol, then in the initial reachability matrix, (i, j) will be set to 0 and (j, i) will be set to 1.
- If the input (i, j) in the structural self-interaction matrix is represented by the X symbol, then in the initial reachability matrix, both (i, j) and (j, i) will be set to 1.

- If the input (i, j) in the structural self-interaction matrix is represented by the O symbol, then in the initial reachability matrix, both (i, j) and (j, i) will be set to 0.

Thus, the initial reachability matrix is obtained according to **Table 3**.

Table 3. Initial reachability matrix

	Factors	V1	V2	V3	V4	V5	V6	V7	V8
	V1	0	0	1	1	0	1	1	0
	V2	0	0	1	1	0	1	0	0
	V3	0	0	0	1	1	0	0	0
	V4	0	0	1	0	0	0	0	0
	V5	0	0	1	0	0	0	0	0
	V6	0	0	0	0	0	0	0	0
	V7	0	0	1	0	0	0	0	0
	V8	0	1	1	1	1	1	1	0

After obtaining the initial reachability matrix, the secondary relationships among the indices were assessed. A secondary relationship exists when index iii leads to index jjj and index jjj leads to index kkk; thus, index iii should also lead to index kkk.

If this is not reflected in the initial reachability matrix, the matrix needs to be modified in a process known as matrix compatibility. During this step, all secondary relationships among variables were examined, and the final reachability matrix was derived as shown in **Table 4**.

Cells marked with 1* in the table indicate positions where the initial reachability matrix had a value of zero but were updated to one after compatibility adjustments (using MATLAB programming). This matrix also displays the driver power and dependence of each variable. Driver power and dependence are determined by summing the number of variables each variable affects and the variable itself. MATLAB software was utilized to compute the final reachability matrix.

Table 4. Final modified reachability matrix

Row	Factors	V1	V2	V3	V4	V5	V6	V7	V8	Driver Power
1	V1	1	0	1	1	1*	1	1	0	6
2	V2	0	1	1	1	1*	1	0	0	5
3	V3	0	0	1	1	1	0	0	0	3
4	V4	0	0	1	1	1*	0	0	0	3
5	V5	0	0	1	1*	1	0	0	0	3
6	V6	0	0	0	0	0	1	0	0	1
7	V7	0	0	1	1*	1*	0	1	0	4
8	V8	0	1	1	1	1	1	1	1	7
Dependence		1	2	7	7	7	4	3	1	

In the subsequent step, after determining the input and output sets for each factor, their shared elements are identified using the reachability matrix. The output set of a factor

includes the factor itself and the factors that it influences, identifiable by the "1" in the corresponding row. Conversely, the input set of a factor consists of the factor itself and the factors that influence it, which can be identified by the "1" in the corresponding column.

Once the input and output sets are determined, their intersections are analyzed for each factor. Factors with similar output sets and intersections are positioned at higher levels in the interpretive structural model hierarchy. To identify the components at the next level of the system, the highest-level components are removed from the calculations, and the process to determine the subsequent level components is repeated. This iterative process continues until all levels of the system are identified.

Table 5. Leveling of factors (first iteration step)

Row	Factors	Output set	Input set	Joint collection	Level
1	V1	1-3-4-5-6-7	1	1	
2	V2	2-3-4-5-6	2-8	2	
3	V3	3-4-5	1-2-3-4-5-7-8	3-4-5	1
4	V4	3-4-5	1-2-3-4-5-7-8	3-4-5	1
5	V5	3-4-5	1-2-3-4-5-7-8	3-4-5	1
6	V6	6	1-2-6-8	6	1
7	V7	3-4-5-7	1-7-8	7	
8	V8	2-3-4-5-6-7-8	8	8	

Table 6. Leveling of factors (second iteration step)

Row	Factors	Output set	Input set	Joint collection	Level
1	V1	1-7	1	1	
2	V2	2	2-8	2	2
7	V7	7	1-7-8	7	2
8	V8	2-7-8	8	8	

Table 8. Leveling of factors (third iteration step)

Row	Factors	Output set	Input set	Joint collection	Level
1	V1	1	1	1	3
8	V8	8	8	8	3

After determining the levels of each factor and considering the final reachability matrix, the interpretive structure model is drawn. The obtained final model consists of 3 levels. Factors at the top of the hierarchy are less effective and more influential. Sales performance, selling behavior, social media use, and competitive intelligence collection are more effective in relation to the research topic and other factors such as media type and learning goal orientation have the most influential and the least effective (Figure 1). Finally, MicMac analysis is presented. The results of MicMac analysis showed that ten factors related to sales performance are divided into three categories of independent, dependent, and autonomous factors according to social media in terms of driver power and dependence. For example: sales performance factor because it has low driver

power and more dependence, so it is a dependent factor; Other factors also fall into one of three categories of independent, dependent, autonomous factors, depending on the driver power and dependence on the subject.

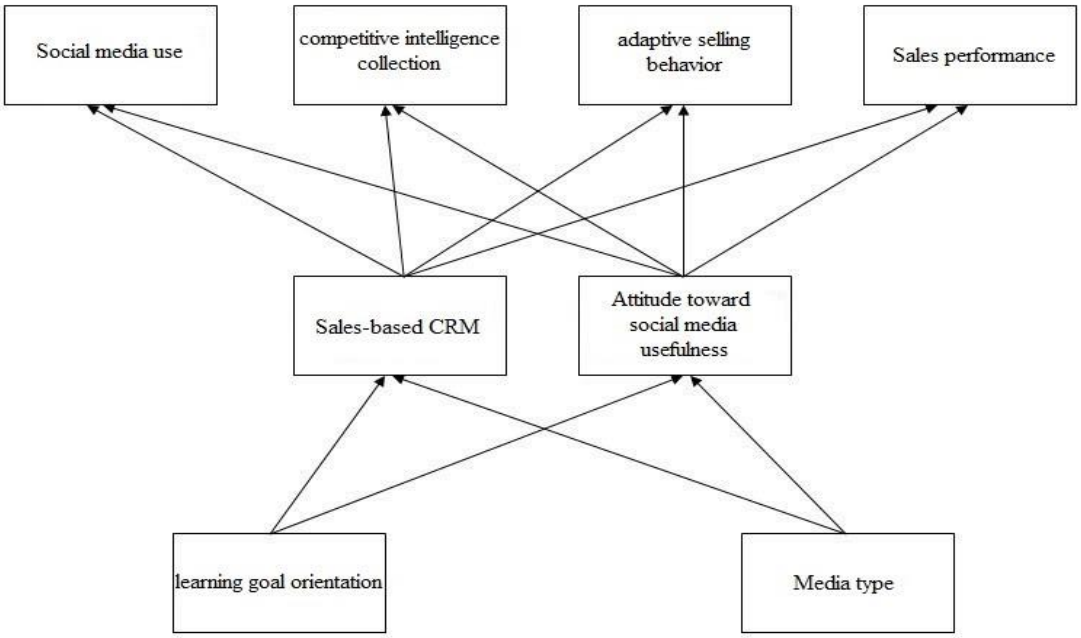
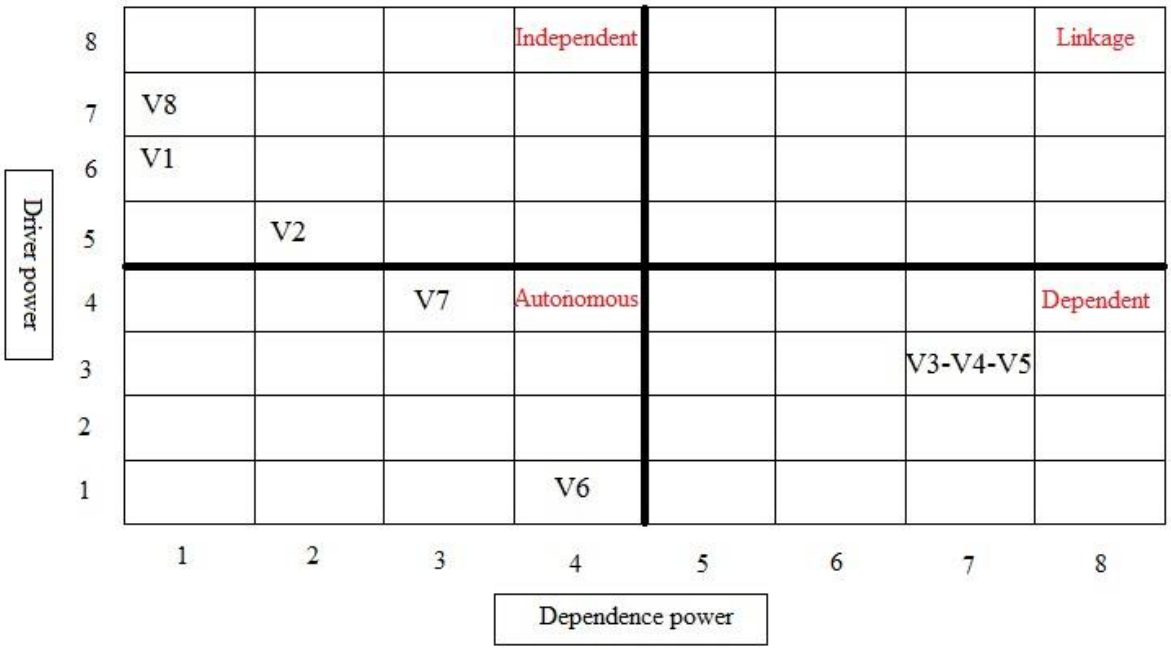


Figure 1. ISM model



Graph 1. Driving power and dependence power diagram.

4.2. Structural Equation Modeling (SEM)

In this study, due to the exploratory nature of the research and the volume of data, the Structural Equation Modeling (SEM) method was employed using SmartPLS 3 software. This approach utilizes the Partial Least Squares (PLS) method, which is well-suited for handling issues such as small sample sizes, missing data, and non-normal data distributions, and is effective for assessing the relationships between variables (Hair et al., 2006). Based on the model presented in the ISM section, the research hypotheses and the relationships between the variables are tested and evaluated using this method.

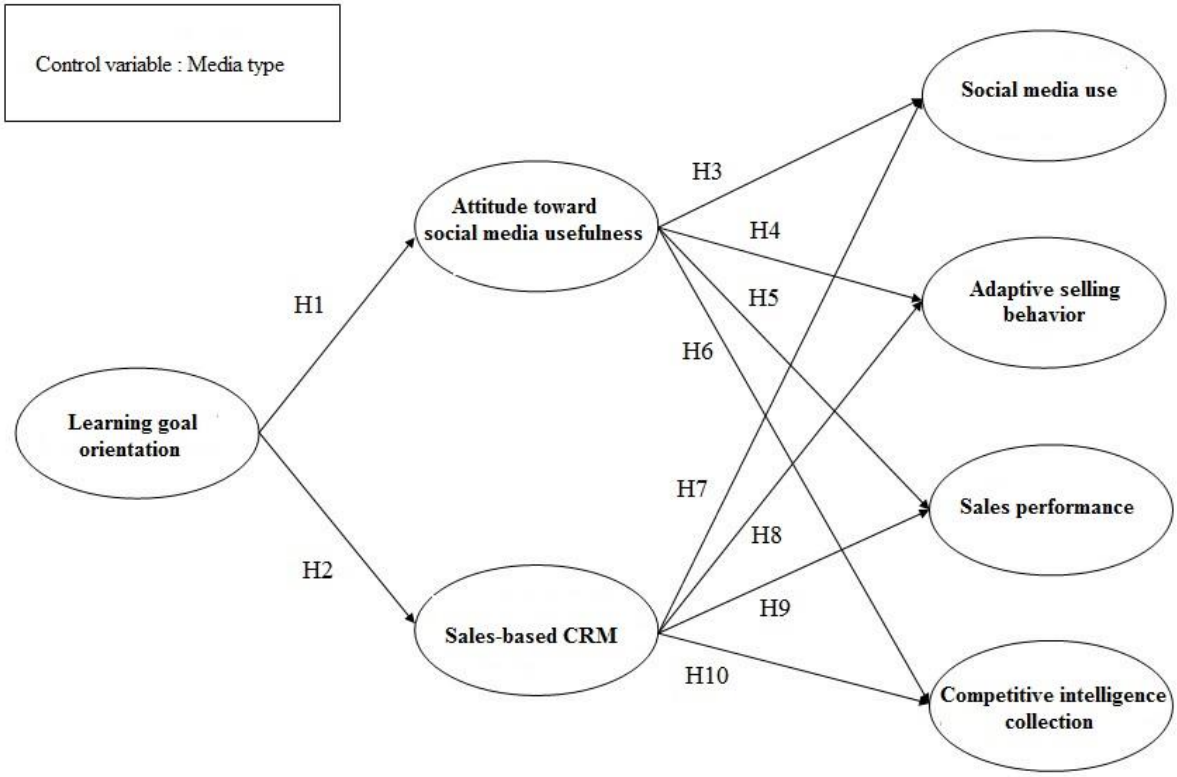


Figure 2. Research model

Hypotheses:

1. Learning goal orientation has a positive and significant effect on attitude towards social media usefulness.
2. Learning goal orientation has a positive and significant effect on sales-based CRM.
3. Attitude towards social media usefulness has a positive and significant effect on social media use.
4. Attitude towards social media usefulness has a positive and significant effect on selling behavior.
5. Attitude towards social media usefulness has a positive and significant effect on sales performance.
6. Attitude towards social media usefulness has a positive and significant effect on competitive intelligence collection.
7. Sales-based CRM has a positive and significant effect on social media use.
8. Sales-based CRM has a positive and significant effect on selling behavior.
9. Sales-based CRM has a positive and significant effect on sales performance.
10. Sales-based CRM has a positive and significant effect on competitive intelligence collection.

Measurement Models and Instrument

In this section, we first discuss the validity of the model, structures, and instruments, and then examine the rejection or confirmation of the hypotheses. The data collection tool is a standard questionnaire used in similar research (Itani et al., 2017; Agnihotri et al.,

2017). Variables measured include sales performance (3 items), learning goal orientation (5 items), attitude towards social media usefulness (2 items), social media use (3 items), competitive intelligence collection (3 items), and selling behavior (4 items) as provided by Itani et al. (2017). Additionally, the sales-based CRM variable, with 6 items presented by Agnihotri et al. (2017), is measured.

Two indicators are used to calculate convergent validity. The first index is Average Variance Extracted (AVE), with values greater than 0.5 indicating appropriate convergent validity (Hair et al., 2014; Ebrahimi and Mirbargkar, 2017), as shown in Table (9). Values above 0.4 are acceptable if discriminant validity is not compromised (Ebrahimi et al., 2018). Additionally, outer loading values higher than 0.4 in confirmatory factor analysis indicate the convergent validity of research variables (Hulland, 1999; Hair et al., 2006; Hair et al., 2014; Ebrahimi et al., 2020). In this study, all indicators show values greater than 0.4 (Table 9). Cronbach's alpha and composite reliability (CR) indices are also used to confirm the reliability of the measurement instrument. Values above 0.7 are considered appropriate for both indicators (Sanchez, 2013; Hair et al., 2014). Therefore, the reliability of the measurement tool is confirmed.

Table 9. Reliability and validity review

Variable	Items	Outer loadings	Cronbach's alpha	Composite reliability	AVE
Sales performance	Q1	0.928	0.854	0.911	0.773
	Q2	0.877			
	Q3	0.829			
learning goal orientation	Q4	0.802	0.794	0.858	0.549
	Q5	0.797			
	Q6	0.667			
	Q7	0.609			
	Q8	0.808			
attitude toward social media usefulness	Q9	0.916	0.811	0.913	0.841
	Q10	0.918			
social media use	Q11	0.894	0.864	0.916	0.785
	Q12	0.895			
	Q13	0.869			
competitive intelligence collection	Q14	0.743	0.729	0.848	0.650
	Q15	0.835			
	Q16	0.838			
selling behavior	Q17	0.659	0.719	0.826	0.544
	Q18	0.780			
	Q19	0.785			
	Q20	0.721			
Sales-based CRM	Q21	0.849	0.829	0.869	0.535
	Q22	0.861			
	Q23	0.676			
	Q24	0.747			
	Q25	0.746			
	Q26	0.419			

Heterotrait-Monotrait Ratio of Correlations (HTMT) was used to evaluate discriminant validity. According to Table (10), considering that values less than 0.9 are considered desirable for this index (Henseler et al., 2015), so discriminant validity is approved.

Table 10. Discriminant validity based on HTMT index

Variable	learning goal orientation	Media use	Competitive information	selling behavior	Sales performance	Sales-based CRM	attitude toward social media usefulness
learning goal orientation							
Media use	0.661						
Competitive information	0.806	0.833					
selling behaviour	0.727	0.760	0.840				
Sales performance	0.543	0.449	0.557	0.517			
Sales-based CRM	0.498	0.602	0.670	0.690	0.306		
attitude toward social media usefulness	0.762	0.786	0.691	0.799	0.418	0.497	

– **Structural model**

To test the research hypotheses, path coefficient values and T-statistics have been used (Appendix 1). Regarding the values of T-statistics, usually if the value of t-statistic is more than 1.96 and 2.58, they are significant at the 5% and 0.01 of confidence level (Hair et al., 2006). In addition, according to the output of the test of the variables effect on each other in the standard estimation mode, the number inside the endogenous variables indicates the coefficient of explanation or R^2, which indicates how much of the dependent variable is explained by the independent variable. Table (11) shows the structural model indices such as determination coefficient and Aston-Geiser index (Q^2) including Construct Cross-validated Redundancy (CC-Red) and Construct Cross-validated Communality (CC-Com). In addition, SRMR index has been used to evaluate the whole model, including internal structural model and external measurement models, and values less than 0.08 are considered desirable for this index (Hair et al., 2014; Hair et al., 2018). In this study, the SRMR value in the output of the estimated model is 0.078 and the saturation model is 0.078, which shows the appropriate fitness of the measurement and structural model. The results confirm all the research hypotheses (Table 12).

Table 11. Structural model indicators

Variable	R^2	R^2 Adjusted	CC-Red	CC-Com
learning goal orientation	-	-	-	0.333
Media use	53.7%	53.4%	0.410	0.303
Competitive information	42.2%	41.9%	0.262	0.244
selling behavior	51.1%	50.8%	0.266	0.528
Sales performance	14.4%	13.9%	0.106	0.371
Sales-based CRM	20.6%	20.3%	0.099	0.444
attitude toward social media usefulness	39.4%	39.2%	0.324	0.454

Table 12. Results of research hypotheses

Hypotheses	Path coefficient	t-statistic	Standard deviation	P-value	Result
Hypothesis 1	0.627	14.643	0.043	0.000	Confirmation
Hypothesis 2	0.454	8.314	0.055	0.000	Confirmation
Hypothesis 3	0.516	12.086	0.057	0.000	Confirmation
Hypothesis 4	0.255	2.084	0.043	0.000	Confirmation
Hypothesis 5	0.280	4.303	0.065	0.000	Confirmation
Hypothesis 6	0.352	6.949	0.051	0.000	Confirmation
Hypothesis 7	0.340	7.006	0.049	0.000	Confirmation
Hypothesis 8	0.399	9.075	0.044	0.000	Confirmation
Hypothesis 9	0.161	3.092	0.052	0.002	Confirmation
Hypothesis 10	0.412	8.732	0.047	0.000	Confirmation

3. Media Type Control Variable

In this study, the control role of the media type variable was examined separately for each medium. Additionally, the explanatory power of the models across different media was compared. In the research sample, 20% of medical and laboratory equipment sales companies (equivalent to 66 companies) use Instagram as their primary medium for sales interactions. Compared to the overall model, sales performance remains influenced by technology, although no significant effect is observed from attitude towards sales performance. Notably, there are no significant hypotheses related to competitive intelligence collection for this medium. Furthermore, attitude in this medium does not significantly affect selling behavior.

In the case of Telegram, which is used by 4.5% of medical and laboratory equipment sales companies (equivalent to 15 companies), the model shows that sales performance is still influenced by technology, with no significant effect from attitude towards sales performance. Similarities exist between the Telegram and Instagram models. A noteworthy aspect in the Telegram model is the confirmed strong impact of learning goal orientation on sales-based CRM. Despite some hypotheses being non-significant, they exhibited a positive effect, which may be attributed to the small sample size for Telegram media. The popularity of Telegram has declined due to filtering applications in Iran, affecting its use in sales companies.

WhatsApp is used by 24.5% of medical and laboratory equipment sales companies (equivalent to 81 companies). The sales performance model for WhatsApp appears to address selling behavior and sales performance more effectively compared to Instagram and Telegram. Notably, the seventh hypothesis is 90% significant, though slightly below the 95% confidence level. WhatsApp's popularity has increased recently in Iran, replacing Telegram in some businesses, but it does not fully explain the sales performance objectives.

Finally, 50.9% of medical and laboratory equipment sales companies (equivalent to 168 companies) use at least two media simultaneously. This multimedia approach or use of multiple media seems to yield better results compared to single-media approaches. The SRMR and NFI model fit indices suggest that multimedia and WhatsApp models perform better than others, although the Telegram media model shows a higher explanatory and predictive power when comparing the coefficients.

4.4. Importance-Performance Matrix (IPMA)

The Importance-Performance Matrix (IPMA) is used to identify which predictor variables are most crucial in the sales performance model across different media. This matrix highlights variables that are important but currently underperforming in practice (Hair et al., 2019). In the general sales performance model, the variable "attitude towards social media usefulness" is highly important compared to other variables but performs suboptimally and requires further attention to enhance sales performance (see Appendix 2). For the Instagram media model, "sales-based CRM" is more important than other variables, yet its performance is not satisfactory in the proposed model. In the Telegram media model, "sales-based CRM" again proves to be crucial, though its performance needs improvement. Similarly, the "attitude towards utility" variable does not perform well and needs attention in both WhatsApp and multimedia media contexts. These observations can be considered management recommendations.

According to the results of ISM analysis and comparing the driving power of each variable, we find that the media type variable has the highest driving power and the least dependence among other variables and is a powerful independent variable. Then the learning goal orientation variable is placed, and the attitude toward media usefulness has a lower rank. Thus, it is clear that the choice of media type is very important for companies and can play a vital role in technology-based transactions (Bianchi and Andrews, 2015). What kind of media companies use to communicate with their contacts and customers is important, and in addition, the type of media is very important to inform about new products and answer customers' questions quickly and in a timely manner (Milton, 2014). Also, paying attention to learning goal orientation to increase sales performance and lead the audience and customers to better understand the usefulness of social media can be very valuable and very useful to achieve the goals of the organization. Sales performance and sales-based CRM variables are autonomous variables. Similarly, based on the driving force and the degree of dependence, it can be said that the variables of social media use, competitive intelligence collection, and selling behavior are among the dependent variables.

We examined the model in different media to control the variable of media type. Instagram, Telegram, and WhatsApp were among the types of examined media, as well as a fourth mode for companies that use more than one medium at the same time. As a result, we once examined the model in general for different media, and then examined the multimedia mode for companies that use at least two media at the same time.

Examining the model focusing on Instagram media, we found that four hypotheses were not supported. These were hypotheses that could make a few points, including that sales performance in this model was influenced by sales-based CRM but not by attitude toward social media usefulness. It was also observed that the competitive intelligence collection hypothesis was not confirmed. It can be said that Instagram is very useful for some types of trade and commerce, for example, businesses related to clothing, food, and advertising, but this is not the case with companies selling medical and laboratory equipment. These companies cannot do good marketing and sales through Instagram and can only use it to display products and receive feedback from customers (Baptista and Oliveira, 2016). As a result, sales performance was not good on Instagram, and the sales performance model of laboratory and medical equipment companies did not receive favorable feedback. In addition, we

separated the coefficients of explanations. The explanation coefficient values of sales performance were 9.2%. This shows that Instagram is not a good medium to explain sales performance in medical and laboratory equipment companies.

The remarkable thing about the research model of Telegram media is that the effect of learning goal orientation on sales-based CRM has been confirmed as the strongest hypothesis. Another point is that even hypotheses were not significant and had a positive effect, which can be attributed to the small sample size of Telegram media in the present study. On the other hand, most companies had a positive view of the Telegram media in the interviews conducted by the researcher, but the use of this media in sales companies has decreased sharply since the application of filtering in Iran. However, despite all the problems related to the reachability of Telegram, this medium is still popular because the explanatory coefficient is 56.7% for Telegram in sales performance. In the Telegram media, 56.7% of the variance of the sales performance variable in the sales performance model is explained by predictive variables, which has the highest value of the explanation coefficient among other media for the sales performance model, indicating the popularity and efficiency of this media in the sales performance model of such companies. In general, the sales performance model in WhatsApp media seems to explain the intentions of selling behavior and to some extent sales performance in comparison with Instagram and Telegram media. The seventh hypothesis and the impact of sales-based CRM on social media use are rejected with a slight difference. The hypothesis of sales-based CRM impact on sales performance has also been rejected. An important point is the popularity of WhatsApp in recent years in Iran due to its availability, and this media has replaced the Telegram media in some businesses. However, this medium alone does not explain all the purposes of the operation, and there was a need to examine the model in multimedia mode. WhatsApp model explanation power in the field of sales performance shows 27.7%. That is, 27.7% of the variance of the sales performance variable in WhatsApp media is explained by predictive variables, which is an acceptable value.

As mentioned, the sales performance model in the form of multimedia and, in other words, the use of at least two different media at the same time, has created the best results compared to single media companies. In fact, most companies have more than 50% of companies willing to use this sales performance model and use multiple media to improve their sales performance. All hypotheses have been confirmed in this model, and an explanation coefficient of 12.5% has been obtained. It can be said that using at least two media simultaneously and in combination actually explains the best form of sales performance of companies.

6. Discussion

Managers can improve the sales performance according to the achievements of this research and its application in the sales management of their company. We showed that the attitude toward social media usefulness and sales-based CRM were variables that are of great importance, and managers should pay more attention to the reinforcing elements of these two variables and try to improve the relevant elements in the company so that they can achieve better sales performance. In addition, in the multimedia mode of the sales performance model, we showed that managers can use

multiple media simultaneously in the business environment to achieve a more open view of the business environment, and this requires them to keep up with the latest science and technologies in the world that can be effective in increasing sales performance. Managers should always pay special attention to useful technologies in the field of sales and marketing of products offered by their company, because the use of technology, especially social media, creates a two-way relationship between customers and can affect sales performance. According to the results, it was found that emphasizing performance through a medium will not achieve the desired results and advancing the goals as a single media will not be enough. Our research also shows that social media is more successful than other types of media, including video and print media such as radio and television. Iran, with its special limitations in terms of technology reachability and the application of filtering, as well as the acceptance of new technologies by the audience, has its own special conditions that with the studies conducted in Iran, most companies showed a tendency to use social media, namely WhatsApp, Instagram, and Telegram. So that in answering the questions of the questionnaire, they emphasized these media. However, other social media may be more widely used and accepted in other countries, and companies may have received better feedback due to the reachability of their audiences. Other media that may be considered by corporate executives in other countries for use in sales services and performance enhancements are YouTube, Facebook, etc. However, due to Iran's unique economic situation, which may not be generalizable to other countries, Instagram, WhatsApp, and Telegram media were more popular. The use of these media has been better known and more accessible to both companies and their audiences and customers. Hence, they will have a higher efficiency percentage in using social media in sales for companies.

It is suggested that the research model be expanded by adding other variables in the field of sales performance, such as value creation for the customer or brand co-creation, and compare the results with the results of this research. It is also suggested that future researchers examine the model of this research in special circumstances such as COVID-19.

References

Agnihotri, R., Dingus, R., Hu, M. Y., & Krush, M. T. (2016). Social media: Influencing customer satisfaction in B2B sales. *Industrial Marketing Management, 53*, 172–180.

Agnihotri, R., Trainor, K. J., Itani, O. S., & Rodriguez, M. (2017). Examining the role of sales-based CRM technology and social media use on post-sale service behaviors in India. *Journal of Business Research, 81*, 144–154.

Algharabat, R. S. (2017). Linking social media marketing activities with brand love: The mediating role of self-expressive brands. *Kybernetes, 46*(10), 1801–1819.

Andzulis, J. M., Panagopoulos, N. G., & Rapp, A. (2012). A review of social media and implications for the sales process. *Journal of Personal Selling & Sales Management, 32*(3), 305–316.

Attri, R., Dev, N., & Sharma, V. (2013). Interpretive structural modelling (ISM) approach: An overview. *Research Journal of Management Sciences, 2*(2), 6.

Baptista, G., & Oliveira, T. (2016). A weight and meta-analysis on mobile banking acceptance research. *Computers in Human Behavior, 63*, 480–489.

Bhatti, M. A., Mat, N., & Syah Juhari, A. (2018). Effects of job resources factors on nurses job performance (mediating role of work engagement). *International Journal of Health Care Quality Assurance, 31*(8), 1000–1013.

Bianchi, C., & Andrews, L. (2015). Investigating marketing managers' perspectives on social media in Chile. *Journal of Business Research, 68*(12), 2552–2559.

Chen, S. C., & Lin, C. P. (2019). Understanding the effect of social media marketing activities: The mediation of social identification, perceived value, and satisfaction. *Technological Forecasting and Social Change, 140*, 22–32.

Ebrahimi, P., Ahmadi, M., Gholampour, A., & Alipour, H. R. (2020). CRM performance and development of media entrepreneurship in digital, social media, and mobile commerce. *International Journal of Emerging Markets*. doi: 10.1108/IJOEM-11-2018-0588

Ebrahimi, P., & Mirbargkar, S. M. (2017). Green entrepreneurship and green innovation for SME development in market turbulence. *Eurasian Business Review, 7*(2), 203–228.

Ebrahimi, P., Shirsavar, H. R. A., Forootani, F., Roohbakhsh, N., & Ebrahimi, K. H. (2018). Entrepreneurship and SMEs performance: Studying the mediating role of innovation and the moderating role of firm size. In D. Khajeheian, M. Friedrichsen, & W. Modinger (Eds.), *Competitiveness in Emerging Markets* (pp. 481–501). Berlin: Springer.

Goh, K.-Y., Heng, C.-S., & Lin, Z. (2015). Social media brand community and consumer behavior: Quantifying the relative impact of user- and marketer-generated content. *Information Systems Research, 24*(1), 88–107.

Guan, X., & Frenkel, S. (2018). How HR practice, work engagement, and job crafting

influence employee performance. *Chinese Management Studies, 12*(3), 591–607.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate Data Analysis* (6th ed.). Pearson/Prentice Hall, Upper Saddle River, NJ.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM)* (2nd ed.). Sage, Thousand Oaks, CA.

Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2018). *Advanced Issues in Partial Least Squares Structural Equation Modeling*. Sage Publications Ltd.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review, 31*(1), 2–24.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*(1), 115–135.

Hulland, J. S. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal, 20*(4), 195–204.

Itani, O. S., Agnihotri, R., & Dingus, R. (2017). Social media use in B2B sales and its impact on competitive intelligence collection and adaptive selling: Examining the role of learning orientation as an enabler. *Industrial Marketing Management, 66*, 64–79.

Khajeheian, D., & Ebrahimi, P. (2020). Media branding and value co-creation: Effect of user participation in social media of news media on attitudinal and behavioral loyalty. *European Journal of International Management*. doi: 10.1504/EJIM.2020.10020735

Milton, C. L. (2014). Ethics and social media. *Nursing Science Quarterly, 27*(4), 283–285.

Minsky, L., & Quesenberry, K. A. (2016). How B2B sales can benefit from social media. *Harvard Business Review Digital article*. 8 Nov.

Ogilvie, J., Agnihotri, R., Rapp, A., & Trainor, K. (2018). Social media technology use and salesperson performance: A two-study examination of the role of salesperson behaviors, characteristics, and training. *Industrial Marketing Management, 75*, 55–65.

Quinton, S., & Wilson, D. (2016). Tensions and ties in social media networks: Towards a model of understanding business relationship development and business performance enhancement through the use of LinkedIn. *Industrial Marketing Management, 54*, 15–24.

Rapp, A., Beitelspacher, L., Grewal, D., & Hughes, D. (2013). Understanding social media effects across seller, retailer, and consumer interactions. *Journal of the Academy of Marketing Science, 41*(5), 547–566.

Sanchez, G. (2013). *PLS Path Modeling with R*. Trowchez Editions. Berkeley.

Singaraju, S. P., Nguyen, Q. A., Niininen, O., & Sullivan-Mort, G. (2016). Social media and value co-creation in multi-stakeholder systems: A resource integration approach.

Industrial Marketing Management, 54, 44–55.

Singh, R., Kumar, N., & Puri, S. (2017). Thought self-leadership strategies and sales performance: Integrating selling skills and adaptive selling behavior as missing links. *Journal of Business & Industrial Marketing, 32*(5), 652–663.

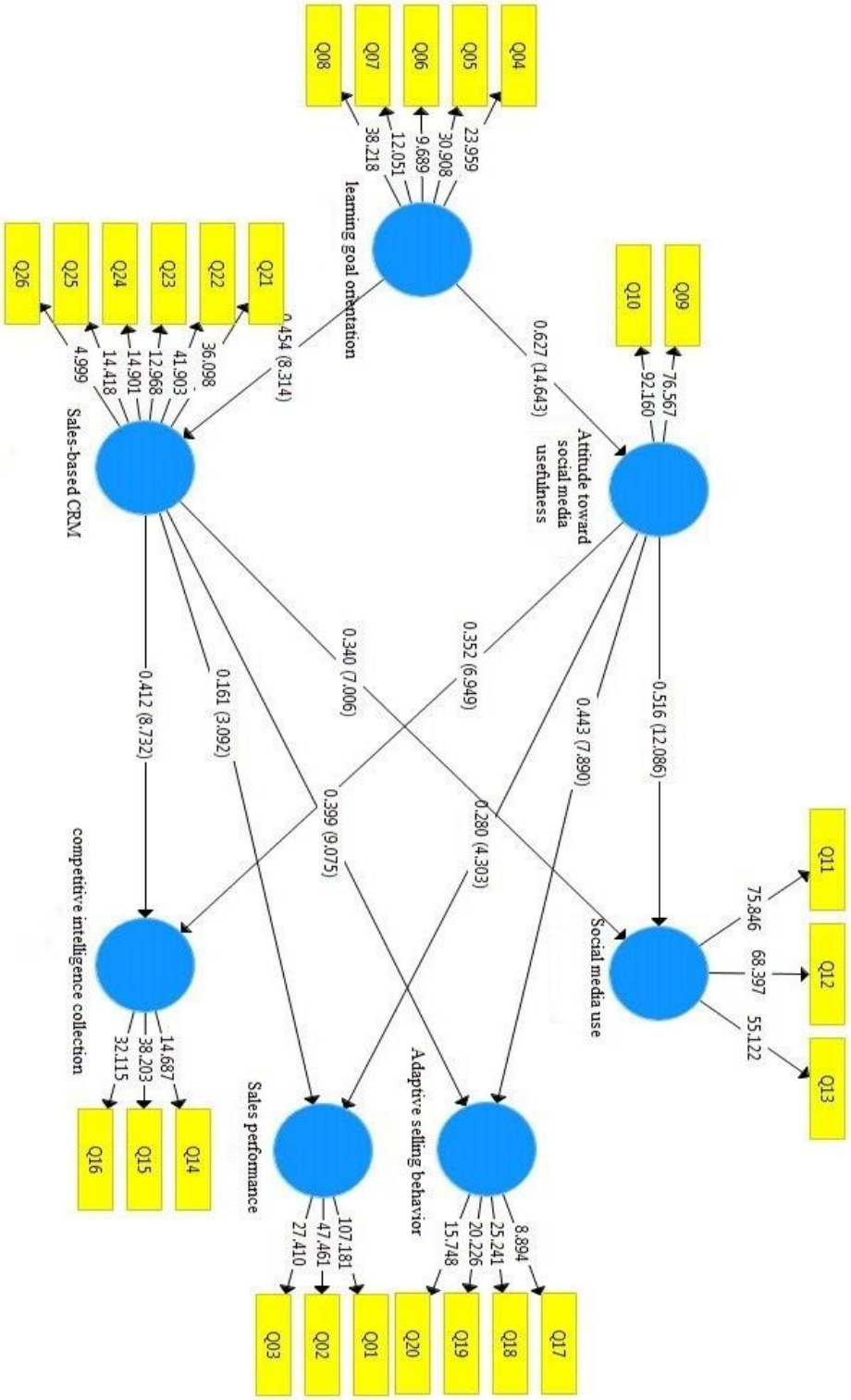
Singh, R., & Das, G. (2013). The impact of job satisfaction, adaptive selling behaviors, and customer orientation on salesperson's performance: Exploring the moderating role of selling experience. *Journal of Business & Industrial Marketing, 28*(7), 554–564.

Singh, M. D., & Kant, R. (2011). Knowledge management barriers: An interpretive structural modeling approach. *International Journal of Management Science and Engineering Management, 3*(2), 10.

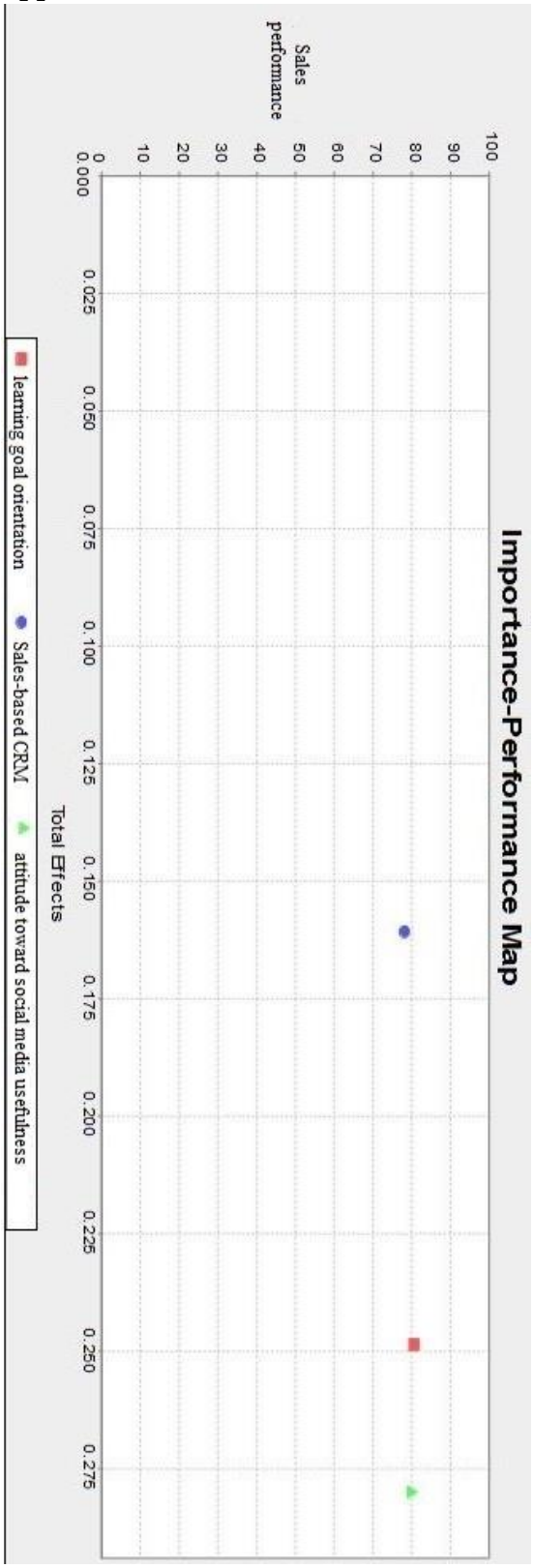
Singh, R., & Venugopal, P. (2015). The impact of salesperson customer orientation on sales performance via mediating mechanism. *Journal of Business & Industrial Marketing, 30*(5), 594–607.

Terho, H. A., Haas, A., & Ulga, W. (2015). How sales strategy translates into performance: The role

Appendix 1 : Path coefficient and T-statistic Model



Appendix 2 : IPMA Matrix



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