Modelling the Synergy of Digital Marketing and Advertising in Real Estate

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ABSTRACT

Digital marketing in real estate companies is a prominent trend due to superior network infrastructure and rising smartphone usage in Malaysia. Digital marketing increased during the Coronavirus Disease (COVID-19) pandemic because it decreased health hazards and improved public reach. This study examines real estate agency digital marketing components and their performance. Data was acquired using self-administered questionnaire delivered to Klang Valley real estate agents and negotiators. Frequency and PLS-SEM were used to identify relevant factors. The results indicate that Customer Engagement (C) and Value and Cost (V) components significantly affected real estate agency marketing. In contrast, Segmentation (S) and Longevity (L) were insignificant. The study introduces a relationship model for real estate agency digital marketing in Malaysia, which will improve its utilisation.

INTRODUCTION

Digital Marketing has become a normal practice for companies to market their products or services. With the high penetration of internet access and the pandemic Coronavirus Disease (COVID-19), the world has shifted from traditional means to digital marketing that assists in reaching wider consumers and providing efficient use of resources. Apart from that, the world has witnessed growth in digital sales and traffic during the COVID-19 pandemic, due to the Movement Control Order (MCO), Work from Home (WFH), and Standard Operating Procedures (SOPs) for COVID-19 infection prevention. The real estate industry is also getting affected by the COVID-19 pandemic, leading to a substantial number of unsold properties, and low vacancies for rented buildings. This is due to the low demand for properties. Without a proper and effective

marketing strategy, properties may remain unsold and lead to low demand in certain areas or locations, especially during this challenging time of the COVID-19 pandemic.

In Malaysia, digital marketing roles have increased tremendously with the introduction of website platforms such as Mudah.my and iProperty.com where real estate agents or negotiators can market their real estate listings to reach a wider population. In addition, developers may showcase their newest development using creative websites, online brochures, and emails. The wide use of digital marketing in real estate agencies shows the emerging popularity and benefits of this approach compared to traditional marketing. Majid et al., (2023) suggested that successful social media marketing campaigns will influence consumers' selection decisions during the purchasing process.

Marketing management is the exchange of individuals and groups with the goal of coming to a consensus over shared objectives (Nouri et al., 2016). Specifically, digital marketing is the promotion of brands using the Internet and other digital media to engage with prospective customers (Kumar et al., 2023). The principal objectives of digital marketing in the real estate industry are brand building and performance advertising. To increase the capability to compete in the market, estate agency firms should embrace the digitalisation of consumer behaviour (Matidza et al., 2020). Despite this, the application of digital marketing in real estate is still low, which contributes to a lack of awareness, infrastructure, and support in real estate companies (Kamarulzaman, 2011).

Real estate can be defined as land and buildings. The real estate agency practice on the other hand related to acting or holding oneself out to the public or any individual or firm as ready to act, for a commission, fee, reward, or other consideration, as an agent for; (a) any property sale or other disposal, (b) any property purchase or other acquisition, (c) any leasing or letting of property, and (d) making known of the availability of property for such sale or disposal, and (e) any tenancy administration (Board of Valuers, Appraisers, Estate Agents and Property Managers, 2020). The main professionals who are directly involved with the agency practices of real estate are the real estate agents and negotiators. In Malaysia, a real estate agent is the person issued with the authority to practice by the Board under Section 16. Meanwhile, a negotiator is a person employed as a salesperson to assist the estate agency firm in estate agency practice, under the direction and supervision of an estate agent.

LITERATURE REVIEW

In the real estate sector, there are three (3) main types of property consisting of residential, commercial, and industrial. According to data, the volume of transactions for Malaysia's real estate in Q3 2021 has reached a total number of 61,311 units with an estimated value of RM35.98 billion. Unfortunately, the data also suggests that the volume of residential property overhang has reached a total of 30,358 units with a value of RM19.80 billion. In particular, the highest type of residential unit that experienced property overhang was high-rise units (62%) followed by terrace houses (22.4%), and others (15.6%) from the total units. One of the contributing factors to property overhang can be associated with the failure to find a potential buyer or purchaser for the real estate unit. In some cases, ineffective advertising used by real estate agents or negotiators can lead to transaction failure. According to the Malaysian Estate Agency Standard, *"Advertisement is referred to any material product use in the mass media or electronic media and any published material of any kind whatsoever issued or exhibited by or on the authority of an estate agent, with the aim to promote estate agent's business and professional services"* (Board of Valuers, Appraisers, Estate Agents and Property Managers, 2020).

With booming technology and the internet, marketing and advertisement in estate agencies show a promising future where the playing field is getting bigger, and boundaries are limitless. Using digital and online marketing, real estate products can reach not only locally, but globally. Studies have found that digital marketing gives many benefits compared to traditional means. Online marketing such as inbound

marketing is the most effective approach adopted by the organisation in this competitive world (Patrutiu-Baltes, 2016). For instance, the popularity of online social networks tends to increase advertising and marketing campaign effectiveness when integrated (Ndung'u et al., 2020). Estate agents were shown to rely heavily on social media marketing and ranked highest compared to other approaches (Oluwatofunmi & Amietsenwu, 2019). For companies, the aims of using digital marketing are to stay relevant, penetrate target consumers, and improve company branding (Low et al., 2020).

Research on the factors of digital marketing effectiveness for real estate agencies in Malaysia remains low despite its wide applications. Hence, this study tries to model the relationship to investigate the contributing factors of real estate agency digital marketing in the case study area. This paper is structured into five (5) sections. Section 1 focuses on the introduction of this research. Section 2 is tailored to the research model development, consisting of the factors of digital marketing, effectiveness, and the conceptual framework developed for this study. Section 3 highlights the proposed research methodology, comprising the sample characteristics, data collection method, and data analysis. Section 4 concentrates on the results from the frequency and Partial Least Square (PLS) analysis, apart from the discussions of the results. Finally, Section 5 concludes the overall findings of this paper.
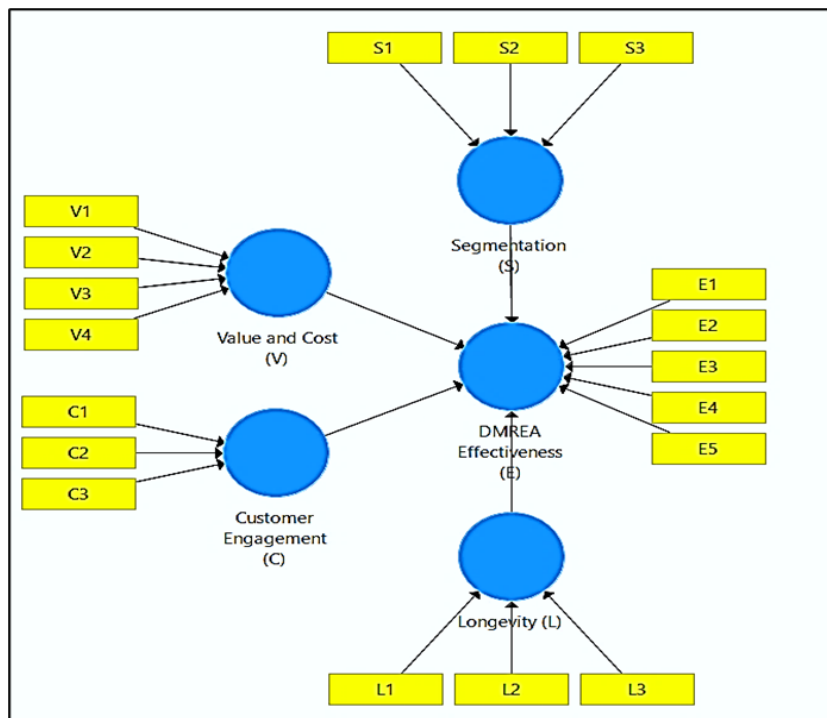
CONCEPTUAL FRAMEWORK

Fig. 1. Research Model

Source: Authors, 2024

Figure 1 shows the research model of this study. Previous literature review on the concept of digital marketing towards the estate agencies' effectiveness has called for a model that can incorporate the digital marketing factors in investigating its relationship and impact towards its effectiveness in single research. Prior to the model development, significant digital marketing features are identified. A literature review in

digital marketing provides a theoretical insight for the development of the research model. Generally, this study has identified four (4) main constructs of digital marketing that contribute to the effectiveness of real estate agencies including segmentation, value and cost, customer engagement, and longevity.

Value and Cost Factor

Secondly, the literature also considers the factor of value and cost (V) in digital marketing. Low Cost and value for money influence the effectiveness of marketing in estate agencies. Previous researchers highlight the factors of cost efficiency (V1) (Oluwatofunmi & Amietsenwu, 2019; Masis et al., 2017; Patrutiu-Baltes, 2016) and higher ROI (V2) (Low et al., 2020) as the subfactors. Others suggested that the ability to track results and user engagement (V3) (Low et al., 2020; Oluwatofunmi & Amietsenwu, 2019; Vieira et al., 2019) contributed to the effectiveness of digital marketing research. Other than that, Functionality (V4) (Ease of Use, time-saving, and high-quality content) (Low et al., 2020; Mandal, 2017; Masis et al., 2017; Patrutiu-Baltes, 2016; Sihare, 2017; Vieira et al., 2019; Ying & Yusoff, 2020) was also studied in the past research.

Customer Engagement Factor

The next important variable is customer engagement (C). Customer engagement including Customer service might be even more crucial than the actual product at times, as it enhances sales of tangible goods and adds value for the consumer (Md Noor & Omar, 2015). Subfactors of Customer engagement such as enhancing customer service (C1) (Patrutiu-Baltes, 2016), inbound that pulls people into a business (C2) (Vieira et al., 2019; Patrutiu-Baltes, 2016) and attracting younger audience engagement (C3) (Low et al., 2020) were observed to have a certain impact in digital marketing research.

Longevity Factor

Lastly, the longevity factor (L) of digital marketing also impacts marketing research. Subfactors of Longevity that were factored in previous investigations include Increased agent's online presence (L1) (Low et al., 2020; Ying & Yusoff, 2020; Masis et al., 2017), Increased company online presence (L2) (Matidza et al., 2020; Oluwatofunmi & Amietsenwu, 2019; Mandal, 2017; Patrutiu-Baltes, 2016; Dumpe, 2015) and, Cumulative impact to generate new or repeated visitors or customers over time (L3) (Al-Afifi et al., 2015; Kamarulzaman, 2011).

DM Effectiveness Factor

Regarding the effectiveness factors (E) or dependent variable, this study has identified five (5) subfactors that are closely related to digital marketing research. Firstly, digital marketing can contribute to the cost-effectiveness of companies (E1) (Low et al., 2020). Other researchers suggested that brand loyalty (E2) (Low et al., 2020; Oluwatofunmi & Amietsenwu, 2019) and property sales (E3) (Low et al., 2020; Oluwatofunmi & Amietsenwu, 2019; Vieira et al., 2019; Al-Afifi et al., 2015) were closely related to the effectiveness. In addition, the measurable profitability factor (E4) was also being studied in digital marketing research (Ndung'u et al., 2020). Finally, previous digital marketing research observed the perspective of health and safety (E5) (Khiong, 2022).

Therefore, this review leads to the four (4) hypotheses:

(i) H_1: Segmentation has a positive and significant relationship with Digital Marketing Effectiveness in Real Estate Agencies.

(ii) H_2: Value and cost have a positive and significant relationship with Digital Marketing Effectiveness in Real Estate Agencies.

(iii) H_3: Customer engagement has a positive and significant relationship with Digital Marketing Effectiveness in Real Estate Agencies.

(iv) H4: Longevity has a positive and significant relationship with Digital Marketing Effectiveness in Real Estate Agencies

METHODOLOGY

This section presents the research methodology involved in investigating the factors determining the effectiveness of digital marketing in real estate agencies in Malaysia. It comprises the explanation of the sample, data collection method and strategy, and data analysis technique. The samples were tested using the Partial Least Square Structural Equation Model (PLS-SEM) technique (formative-formative measurement model) to demonstrate the relationship between digital marketing variables and their effectiveness in real estate agencies. The formative-formative measurement model has also been used by Wan Rodi et al. (2018) to investigate the factors of rental depreciation for office buildings.

This study focuses on the real estate agents and negotiators located in the Klang Valley area, Malaysia. Klang Valley was selected as a case study area since this area is one of the most populated areas with negotiators and estate agents, with substantial numbers of real estate transactions in Malaysia. Questionnaires were sent to the selected real estate agents and negotiators identified from the Board of Valuers, Appraisal, Estate Agents, and Property Managers Malaysia lists, using convenience sampling. A total of seventy (70) questionnaires were sent to the selected real estate agents and negotiators identified from the Board of Valuers, Appraisal, Estate Agents, and Property Managers Malaysia lists, using convenience sampling. In total, the study managed to obtain fifty (50) completed questionnaires from the respondents. The minimum sample size for PLS-SEM analysis is thirty (30) (Hair et al., 2017). Therefore, the number of samples in this study is considered adequate for analysis.

The data were collected using a self-administered questionnaire, developed using Google Forms and distributed via online means such as email, Telegram and WhatsApp. This study relies heavily on online approaches to data collection since it can be easily distributed, monitored, and managed. The questionnaire was designed and developed from the factors obtained from previous studies. It consists of three (3) sections. Section 1 focuses on respondent's background questions including gender, age group and working experience. While Section 2 requests data for online marketing usage frequencies. Lastly, Section 3 focuses on questions related to the digital marketing factors (segmentation, value and cost, customer engagement, longevity) that contribute to its effectiveness in real estate agency advertising. The questionnaire uses a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5).

In this study, frequency analysis is performed to summarise and identify any peculiarity of data to ensure the data is suitable to be analysed. The next step of data analysis involved the PLS-SEM to investigate the relationship and test the hypotheses developed previously. PLS-SEM is useful for small sample sizes with the ability to handle many indicators. Two (2) types of applications will be employed for data analysis, such as International Business Machines Corporation Statistical Package for the Social Sciences (IBM SPSS Statistics) Version 28 and SmartPLS Version 3. Table 1 describes the constructs and indicators used for the PLS-SEM analysis.

Table 1. Summary of the constructs and indicators code for PLS-SEM analysis

Code	Construct/ Indicator
S	*Segmentation*
S1	Detailed and customizable choices and preferences. (Age, group, city)
S2	Targeted Audience (customized and designed to target a specific category of people.)
S3	Conversion rate in Digital marketing is much higher/ wider reach.
V	*Value & Cost*
V1	Cost efficiency
V2	Higher ROI

V3	Ability to track results and user engagement.	
V4	Functionality - Ease of Use, time saving, and high-quality content	
C	*Customer Engagement*	
C1	Enhancing customer service.	
C2	Inbound that pulls people into a business.	
C3	Attract Younger audience engagement.	
L	*Longevity*	
L1	Increased personal/ agent online presence.	
L2	Increased company online presence.	
L3	Cumulative impact – generating new visitors/ customers over time.	
E	*Effectiveness*	
E1	Cost Effective	
E2	Brand Loyalty	
E3	Property sales	
E4	Measurable Profitability	
E5	Health and Safety	

Source: Authors, 2024

FINDINGS AND DISCUSSIONS

This section discussed the results obtained from the frequency and PLS-SEM analysis techniques. Firstly, the frequency analysis analysed the respondent's background and choices of digital marketing in real estate agency practice. Secondly, the PLS-SEM results were discussed from the measurement model to the structural model. This analysis was used to develop the structural model that shows the relationship between digital marketing factors towards digital marketing effectiveness in real estate agency marketing.

Respondent's Background

The respondents were selected among the real estate agents and negotiators located in Klang Valley, Selangor Malaysia. Klang Valley is well known for its urbanized area, high population and one of the most active real estate markets in Malaysia. Therefore, the selection of samples in this area was appropriate for this study. Table 2 summarises the respondent's background.

Table 2. Respondent's background

No.	Respondent Profile	Criteria	No.	Frequency (%)
1.	Gender	Male	31	62.0
		Female	19	38.0
		Σ	50	*100*
2.	Age Group	Baby boomer (1946 - 1961)	0	0.0
		Generation X (1962 - 1976)	9	18.0
		Generation Y (1977 - 1991)	23	46.0
		Generation Z (1992 - 2012)	18	36.0
		Σ	50	*100*
3.	Professions	Negotiator (REN)	40	80.0
		Estate Agent (REA)	10	20.0
		Σ	50	*100*
4.	Working Experience	less than 1 year	13	26.0
		1 to 3 years	16	32.0
		4 to 6 years	12	24.0
		7 to 10 years	6	12.0
		More than 10 years	3	6.0
		Σ	50	*100*

Source: Authors, 2024

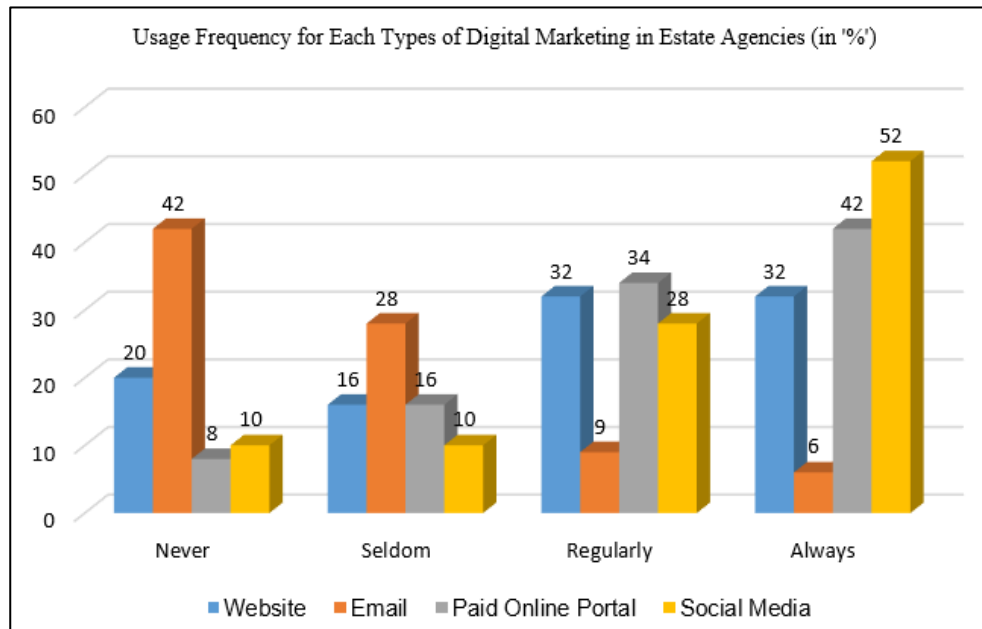**Types of Digital Marketing Employed by Respondents in Estate Agencies**

Fig. 2. Usage Frequency for Each Type of Digital Marketing in Estate Agencies

Source: Authors, 2024

Figure 2 depicts the usage frequency for digital marketing tools in estate agencies. Apart from the respondent's background, this study also gathers data regarding the respondent's usage of digital marketing in their real estate agency practice. The data were analysed using the descriptive approach since it is straightforward and easily understood by the reader (Jasimin & Ali, 2015). The aim was to investigate the most utilised approach of digital marketing among the samples in Klang Valley. The results were tabulated from the four aspects of digital marketing approaches, such as personal webpage, email, paid online portal, and social media. In accordance to Figure 2, the most frequently used approach of digital marketing was social media with the majority of 52 percent followed by paid online portal (42%), and personal website (32%) and the least used approach was email with 6 percent. Figure 2 summarises the types of Digital Marketing usage findings from the respondents.

This finding is consistent with Abu Bakar & Yaacob. (2020) where social media plays a critical role in real estate marketing as it assists a substantial number of agents and negotiators in decision-making and forecasting. Tomasik & Marona (2023) suggested that social media advertising is a crucial component of a development company's marketing plan. Besides, social media has been ranked the most used and effective approach by estate agents compared to other approaches due to its ability to build customer brand loyalty, and fastest approach to disseminating information regarding the products to the public (Oluwatofunmi & Amietsenwu, 2019). A previous study suggests that all the estate agency organisations interviewed used social media to market their product and services (Matidza et al., 2020). Paid social media also plays a positive role in the process of purchase decision-making (Vieira et al., 2019).

While paid online portal ranked second as the most used digital approach in this study. This result is supported by Masis et al. (2017) that a majority of the estate agency firms surveyed employed paid online portals where it has a better and wider reach to clients. Apart from that, Oluwatofunmi & Amietsenwu (2019) recognised the importance of personal websites as it ranked second from the other online methods.

Websites have been observed to be highly used by estate agency companies to increase online appearance (Masis et al., 2017) and property development organisations to market their real estate products (Low et al., 2020). Lastly, email ranked as the lowest-used approach in estate agencies, supported by Oluwatofunmi & Amietsenwu (2019) where email was placed at the bottom three (3) least-used and least effective methods in estate agency marketing.

Results from the PLS-SEM Analysis

Prior to the PLS-SEM analysis, the data were examined to check on the issues of missing data, suspicious and inconsistent response patterns, outliers, and normality. Generally, the examination suggests that the data were free from all these issues and suitable for the next analysis. Then, the researcher proceeds to the measurement and structural model specified in this research. For the formative model, there is a need to conduct the convergent validity test. The results of the analysis showed that the path coefficient for convergent validity between S and SGlobal was 0.887, V and SGlobal (0.885). While C and CGlobal, and L and LGlobal were recorded at 0.890 and 0.870. This implies that all evaluated formative constructs achieved a sufficient level of convergent validity (more than 0.8). Therefore, all variables have contributed to its intended content.

Formative Measurement Model Evaluation

Firstly, the constructs were examined using the Variance Inflation Factor (VIF) to identify their collinearity levels. The VIF value below 5.0 indicates that the formative indicators are free from the collinearity issue (Hair et al., 2017). The results signify that all indicators produced a desirable VIF value of below 5.0 suitable for the next analysis. Secondly, the measurement model was tested to identify the significant indicator outer weights, outer loadings and t-value using the PLS-SEM algorithm and bootstrapping.

The aim was to determine the suitable indicator for keeping or deleting from the measurement model. The indicator shall remain in the model if it produces an outer loading of more than 0.7 and significant, or 0.5 even if it is not significant (Hair et al., 2017). Otherwise, it shall be removed from the model if the outer loading is less than 0.5. In reference to Table 3, several constructs were removed from the measurement model including V1, V2, V3, and C1 since these constructs produced an outer loading of less than 0.5. Table 3 shows the significant value of formative construct measurement.

Table 3. The significant value of the formative measurement model.

Construct	Weight	t-value	Significance (One-tailed)	VIF	Outer Loadings	Result
S1	0.370	0.633, 0.651, 0.623	NS	1.920	0.860	Remain
S2	0.398	0.981, 0.944, 1.012	NS	1.579	0.820	Remain
S3	0.421	0.766, 0.793, 0.819	NS	1.682	0.844	Remain
V1	0.122	0.459, 0.473, 0.437	NS	1.839	0.487	Remove
V2	0.008	0.027, 0.030, 0.027	NS	1.788	0.324	Remove
V3	0.258	1.353, 1.399, 1.264	NS	1.606	0.477	Remove
V4	0.777	5.646*, 5.927**, 5.736***	S	1.555	0.964	Remain
C1	0.029	0.124, 0.117, 0.126	NS	1.682	0.451	Remove
C2	0.507	2.381*, 2.291**, 2.349	S	1.513	0.777	Remain
C3	0.670	4.838*, 4.916**, 4.895***	S	1.326	0.876	Remain
L1	0.490	2.178*, 1.972**, 2.184***	S	1.618	0.870	Remain
L2	0.465	2.040*, 1.935, 2.107***	S	1.504	0.844	Remain
L3	0.252	1.010, 1.052, 1.077	NS	1.464	0.721	Remain

Notes: *p<0.10; **p<0.05; ***p<0.01; NS = Not Significant

Source: Authors, 2024
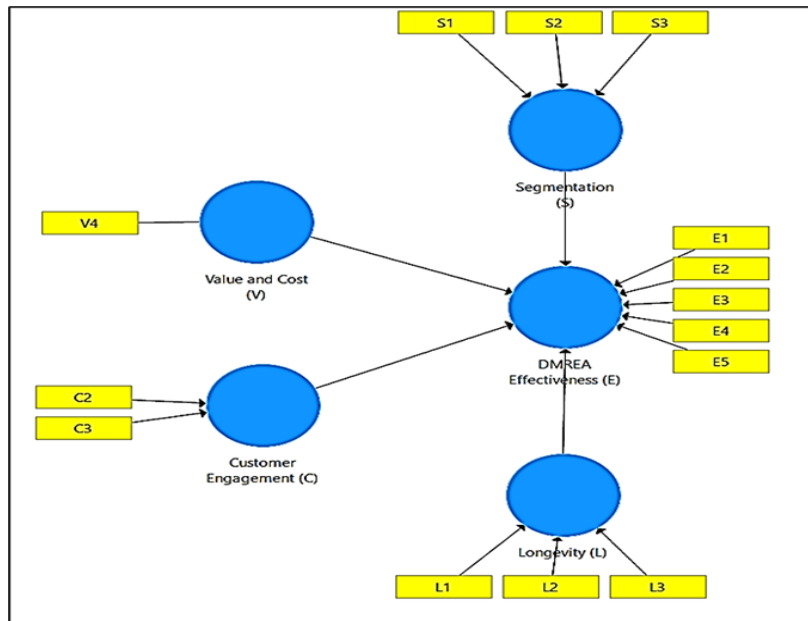
Structural Model Evaluation

Fig. 3. Final Structural Model

Source: Authors, 2024

Figure 3 depicts the final structural model for this study. Next, the structural model evaluation was conducted which consisted of three procedures, namely, collinearity assessment, structural path coefficient and hypothesis testing and, coefficient of determination (adjusted R square) to assess the relationship between exogen and endogen latent variables.

Table 4. Summary of the VIF value for the exogenous latent variables

Endogen Construct	Exogen Construct	VIF
DM Effectiveness (E)	Customer Engagement (C)	3.315
	Longevity (L)	2.780
	Segmentation (S)	1.353
	Value and Cost (V)	1.945

Source: Authors, 2024

Pertaining to Table 4 above, the collinearity assessment results using VIF recommend that all predictors in the structural model were free from collinearity problems. VIF values above 5 or 10 are typically deemed problematic and may involve further investigation or remediation. Afterwards, the bootstrapping technique using 5,000 bootstrap samples for the weighting of the indicators was conducted to assess the structural path coefficient. Therefore, this technique will determine the significance and relevance between endogen and exogen constructs for hypothesis testing. The closer the correlation coefficient values to -1.00 or +1.00, the stronger the relationship (negative or positive).
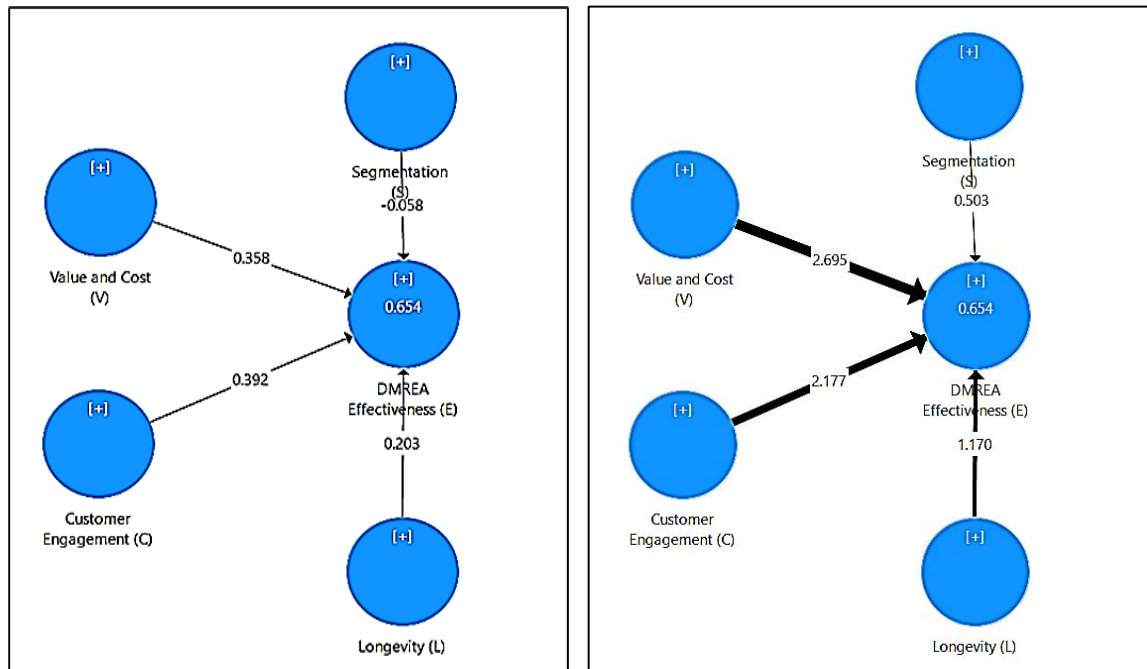
Fig. 4. Structural Model Coefficient Value (left) and Bootstrapping Results t-values (right).

Source: Authors, 2024

Regarding Figure 4, PLS algorithm results showed a positive relationship for C, L, and V with E, denoted by the positive coefficient value of 0.358, 0.392, and 0.203 correspondingly, in contrast to a negative relationship between S and E, resulting in value of -0.058. Two constructs exhibited a significant relationship, with the highest *t-values* of 2.720 for V, followed by C with *t-values* of 2.134, significant at a p-value greater than 10 per cent. Construct L and S, with *t-values* of 1.157 and -0.503 respectively, demonstrated an insignificant relationship with E. The structural model also produced an adjusted *r2* of 0.654, which it moderately represents a 65.4 per cent variance in explaining the REA Digital Marketing Effectiveness. Table 5 depicts the results of the path coefficient and *t-values* of the structural model.

Table 5. Path coefficient and t-values for all constructs

Hypothesis	Relationship		Coefficient value	t-value	Results
H_1	S⌄	E	-0.058	0.509^{NS}, 0.503^{NS}, 0.503^{NS}	Reject
H_2	V⌄	E	0.358	$2.693*$, $2.716**$, $2.695***$	Accept
H_3	C⌄	E	0.392	$2.141*$, $2.142**$, 2.177^{NS}	Accept
H_4	L⌄	E	0.203	1.171^{NS}, 1.162^{NS}, 1.170^{NS}	Reject

*p<0.10; **p<0.05; ***p<0.01; NS = Not Significant

Source: Authors, 2024

Discussions

In relation to Table 5, generally, two (2) out of four (4) hypotheses were accepted based on the result of t-values using PLS-SEM bootstrapping estimation. Firstly, it was hypothesized that the Segmentation factor (S) is significant in influencing the effectiveness of real estate agency digital marketing (H1). Results of the analysis reveal that this construct has no significant relationship with the effectiveness construct. Most of the respondents believed, that segmentation features in DM, were less significant since their advertising of real estate was meant for the general prospective buyer or seller that was interested, without any consideration of age, location, preferences, and others. This finding contradicts Abu Bakar & Yaacob (2020), which indicates the element of localised segmentation should be integrated with real estate agencies' business to establish value creation and gain more support from local customers.

Secondly, it was hypothesized that the Value & Cost factor (V) is significant in influencing the effectiveness of real estate agency digital marketing (H2). Based on the results, this hypothesis was accepted. Compared to traditional marketing, digital and online means appear to be more user-friendly and demonstrate ease of use among related parties. Hence, it indirectly increased the effectiveness of real estate agencies' marketing. This finding is consistent with (Low et al., 2020) who argued that perceived easy-to-use and useful-to-use were positively related to digital marketing adoption in property development organisations. Digital advertising and media also bring value in arousing the interest of potential customers, apart from initiating new sales (Vieira et al., 2019). In contrast, the perceived cost and higher return did not in a way influence their adoption of digital technology in a property development company (Low et al., 2020).

Thirdly, it was also hypothesized that the Customer Engagement (C) factor is significant in influencing the effectiveness of real estate agency digital marketing (H3). This hypothesis was also accepted based on the result of the t-values in the bootstrapping technique. It can be inferred that the customer engagement construct is strongly linked to the estate agencies' marketing effectiveness and will determine their success in securing real estate transactions. The positive relationship reflects that, the better the customer engagement, the more chances of securing sales of the real estate. Therefore, the respondents trust that the Customer engagement factor in DM contributes to their marketing effectiveness. The result was endorsed by Ying & Yusoff (2020) that explains Digital Marketing significantly influences the relationship between estate agents and customers.

Lastly, the fourth hypothesis stipulated that the Longevity factor (L) is significant in influencing the effectiveness of real estate agencies marketing (H4). Unfortunately, this hypothesis was rejected based on the insignificant t-values produced. The reason for rejection by respondents mainly because Longevity factors such as the increased presence of companies and agents, and generating new visitors were not crucial in increasing the effectiveness of agencies marketing. Other means such as newspaper advertising or using publications such as property market reports to promote companies or individuals are still effective in increasing their presence.

Regardless of this, there is a small positive impact between the Longevity construct and estate agencies' marketing effectiveness. A recent study agreed that online presence caused unnecessary insecurity of data, where property buyers have concerns over security and personal information limits (Ying & Yusoff, 2020). In negotiation, physical meeting with the agents was still considered important as it is more secure than the online approach (Masis et al., 2017). Despite, a study by Masis et al. (2017) contradicts these findings which show most real estate companies surveyed recognised the importance of online presence to promote their listings.

CONCLUSIONS

As Information and Communications Technology (ICT) technologies and the internet get more reliable and easily accessible, it is important to appreciate how the factors of digital marketing influence the

effectiveness of real estate agencies advertising and marketing in Malaysia. By testing the effect, this study established that value and cost factors, and customer engagement features of digital marketing, do indeed have a significant impact on the effectiveness of real estate agencies' marketing based on the respondents' feedback. A positive correlation between exogen and endogen constructs suggests that the effectiveness will increase when digital marketing is employed in estate agency practice. While factors such as Segmentation and Longevity were less likely to have any significant relationship with real estate agencies' marketing effectiveness.

Several important areas should be the focus of future research to further understanding of the synergy between digital marketing and real estate advertising. The first area that can provide useful information is studying how new technology, like Augmented Reality (AR) and Virtual Reality (VR), affect consumer involvement and decision-making. It is critical to comprehend the impact of these technologies on the efficacy of both digital and conventional advertising initiatives. Comparative research spanning various demographic subsets and real estate marketplaces might also shed light on the subtle differences in digital strategy efficacy. How well digital marketing and real estate advertising work together could depend on a lot of factors like cultural preferences, the economy, and regulations. Nonetheless, the model has provided a significant step towards understanding the relationship between digital marketing factors and estate agencies' effectiveness. It further contributes to promoting the use of digital marketing, apart from the traditional approaches in real estate agencies practice in Malaysia.

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CONFLICT OF INTEREST STATEMENT

The authors confirm that this research was carried out without any personal, commercial, or financial conflicts and state that they have no conflicting interests with the funders.

AUTHORS' CONTRIBUTIONS

All author(s) participated in performing the research, contributed to the drafting and revision of the article, came up with the central research topic, and provided feedback for the theoretical framework. In addition, they all reviewed and agreed to submit the paper.

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