

Impact of Digital Marketing Skills on Digital Marketing Performance of Entrepreneurs

^[1]Dr.Venkat Ram Raj Thumiki, ^[2]Dr.Hesham Magd

^[1] ^[2]Modern College of Business and Science, Sultanate of Oman.

^[1]venkat@mcbs.edu.om, ^[2]hesham.magd@mcbs.edu.om

Abstract— In the present study, the relationship between the digital marketing skills of the entrepreneurs and their perceived digital marketing performance was examined by using the factor analysis scores in multiple regression model. The data was collected from 87 independent entrepreneurs selected using the snowball sampling technique. Factor analysis and regression analysis were conducted to evaluate the data. Three factors, representing digital marketing skills, ‘content and promotion’, ‘communication and transactions’, and ‘monitoring and measurement’ were selected as explanatory variables and used for multiple linear regression analysis. It was found that these three factors had significant effect on the perceived digital marketing performance of entrepreneurs in Oman. The research attains significance in the current era of rising digital marketing practices by entrepreneurs.

Index Terms— Entrepreneurship, Digital Marketing performance, Digital marketing skills, Small business management.

Introduction

Today’s customer-centric organizations’ focus on delivering superior customer value makes the ‘marketing domain’ a business imperative. In this entrepreneurship era, knowledge of marketing discipline and acquiring marketing skills are key pillars for the success of small businesses. With the extensive use of the internet and due to the COVID-19 pandemic, small business owners have taken advantage of the emerging internet technology [1], [2] and have adopted online marketing strategies a.k.a. digital marketing. And in this endeavor, they need digital marketing skills. Thus, digital marketing skills have become important for entrepreneurial success. But the lack of digital marketing skills among entrepreneurs has become the biggest challenge in sustaining the entrepreneurship eco-system. Sultanate of Oman, one of the leading economies in the Middle East region, too has been in the pursuit of establishing a self-sustaining entrepreneurship eco-system and needs attention in this aspect. More than two decades ago, [3] opined that there is a need to identify the digital marketing skills of entrepreneurs in Oman, to catch-up with the digital revolution and successfully run their small businesses online. Thus, this study aims at finding answers to the following important research questions: Do the entrepreneurs in Oman possess the required digital marketing skills? This calls for identifying the level of knowledge, awareness, and application of digital marketing principles by Omani entrepreneurs. Do they think that they are able to successfully perform digital marketing? This calls for understanding the perceived digital marketing performance of Omani entrepreneurs. And lastly, if they perceive poorer digital marketing performance, is it because of their lower digital marketing skills? This calls for understanding the relationship between the digital marketing skills of entrepreneurs and their digital marketing performance.

A. Background of the study

Oman’s focus on transforming the society into a knowledge society [4], [5] and developing the skill set among its citizens has been phenomenal. The Government’s programs to support higher education [6] aiming at the development of skills and competencies among the people [7] have been in focus since the renaissance period. One of the important dimensions of this endeavor is to develop self-sustainability among young Omanis and transform them from job seekers into job creators [8], [9]. As a part of its efforts to diversify the economy from oil to non-oil dependency [10], the Government of Oman has been taking initiatives to support entrepreneurship in the country [11] and build marketing skills among Omani entrepreneurs.

literature review and research gap

The entrepreneurs in Oman have been facing difficulties and challenges related to business continuity and the success of their small businesses [12]-[14]. Failure or moderate success [15] has become a common problem among entrepreneurs [16]. Two main reasons for this could be lack of, business skills in general and marketing skills in particular [17], [18]. Available literature has established a positive relationship between the marketing skills of entrepreneurs and their success [19]. [17], [15] proved the relationship between the two variables in the Omani context. They identified a lack of marketing skills as one of the main reasons for the moderate success or failure of entrepreneurs in Oman. [20] emphasized the need for imparting skills among rural women entrepreneurs in Oman. [21] and [22] emphasized the need for changes in the Omani educational system leading to entrepreneurship. But this literature did not specify the need for digital marketing skills among entrepreneurs. [23] found that there is a lack of generic business skills but did not specifically address digital marketing skills. One of the reasons for the previous studies not addressing the digital marketing could be that, at the time of those researches, the marketing function was conducted offline. Several other studies related to entrepreneurship in Oman focused on finance-related problems [24] and barriers to entrepreneurship [25], but not specifically related to digital marketing skills of entrepreneurs.

Objectives Of The Study

The main objectives of this research are, to identify the digital marketing skills possessed by entrepreneurs in Oman, to find out the self-perception of their digital marketing performance, and finally to evaluate the relationship between their digital marketing skills and their perceived digital marketing performance.

formulating hypotheses

B. Categorization of digital marketing skills (H1)

Content development and promotion: Important aspect in digital marketing is developing the content that is relevant to the target customers. The entrepreneurs need to make videos and post them on their social media handles. In addition, they need to write content on their website and in their blogs [29]. They need to write compelling emails to their target customers as a part of their product promotion. The entrepreneurs need to use innovative techniques such as remarketing, wherein the products are promoted to those who visited the website earlier. There is also a need to develop a landing page and identify referrals to provide backlinking to their website. Use of Hashtags for the postings too contributes to the promotion of the product [30]. While making videos, writing emails, developing landing pages, writing on the website and blogs contributes to content development, posting the videos on social media platforms, sending promotional emails, putting Hashtags and running remarketing campaigns contributes to the content promotion [42].

Communication with the customers and performing digital transactions: Digital marketing skills include communicating with the prospective customers in the form of online chatting [1]. The entrepreneurs need to get into a dialogue with the visitors of the website through online chatting. Further, taking them through the online sales funnel includes issues such as selling online, receiving digital payments and issuing digital receipts. Performing the business related transactions online too falls under the digital marketing skills of the entrepreneurs [37], [38].

Monitoring and measurement: Entrepreneurs need skills related to measurement and monitoring their online marketing activities to avoid any sort of marketing difficulties [18]. Monitoring traffic on the website or social media handle includes key issues such as calculating the bounce rate, conversion rate, and the click through rate for the website [22], [30], [34]. This literature review leads us to the conclusion that the digital marketing skills can be grouped into three categories. But, as there was no research proving this hypothesis, we have set the following hypothesis:

H1: The digital marketing skills can be categorized into, 1)Content development and promotion, 2)Communication and transactions, 3)Monitoring and measurement

C. Dependency of digital marketing performance on digital marketing skills (H2)

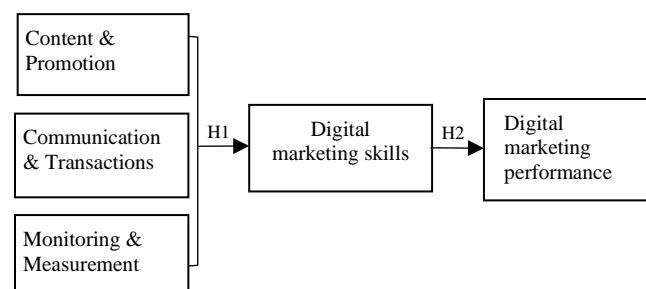
Application of the digital marketing strategies is a reflection of the digital marketing skills possessed by the entrepreneurs. Better the digital marketing skills, better would be their digital marketing performance. An

effectively drafted content would attract the attention of the prospective customers, promotional emails containing keywords related to the need fulfillment would be able to persuade the potential customers [7]. This explains the dependency on content development skills. Attractive videos conveying the right message would result in the effective promotion of goods and services. The knowledge of right Hashtags would enable the messages to reach to larger audience [19]. This explains the dependency on communicating or promotional skills. A smooth transformation of a casual visitor or an enquirer into a serious buyer would contribute to the sales funnel. This explains the dependency on online selling skills. Further, the ability and skill related to the use of digital marketing metrics too can contribute to effective performance of the digital marketing by entrepreneurs. This explains the dependency on measurement skills. Thus, the digital marketing skills aid the digital marketing strategies and contribute to the successful digital marketing performance [2], [6], [11], [14], [24], [29], [34], [36]. This emphasizes on the fact that the digital marketing performance depends upon the digital marketing skills possessed by the entrepreneurs. Thus, the following hypothesis was set:

H2: The digital marketing performance of entrepreneurs is dependent upon their digital marketing skills

Research Framework

Chart 1: Framework for the study on digital marketing skills of entrepreneurs



Research Methodology

Data related to the implementation of digital marketing concepts were collected from 87 individual entrepreneurs, who are essentially Omani nationals (sampling unit). Snowball sampling technique was followed in selecting the sample [26]. This was due to the difficulty in finding out the individual entrepreneurs and difficulty in obtaining the sampling frames or a list of individual entrepreneurs which is a prerequisite for the application of probability sampling technique [27]. Primary data was collected with the help of a self-administered questionnaire designed with the help of the available literature related to general marketing skills [28] and digital marketing skills [29, 30]. These variables were presented as statements and the respondents were required to indicate the application of each aspect on a 5-point scale ranging from 'not at all applied' to 'regularly applied' (regularly-5, often-4, sometimes-3, very rarely-2 or not at all-1). The Kolmogorov-Smirnov test results indicated that the test distribution is not normal, and, as this is not a condition for conducting factor analysis and regression analysis, we have proceeded with the analysis and interpretation of data.

The factor analysis was performed on 13 variables to identify and demonstrate their relative significance (Table 1) and to describe their impact on the perceived digital marketing performance of entrepreneurs (table 3). Factors with Eigen values greater than 1 were identified. Using the Varimax rotation, factor loadings (L_{ik}) were identified (Table 1). To obtain the factor scores, Coefficients (C_{ik}) were used. These factor scores were used as the independent variables in the regression analysis [31]. The correlation coefficient analysis revealed the existence of statistically significant correlation between each of the variables with the other variables used in the study ($p < 0.05$). As recommended by [43], the determination coefficient (R^2) value was used as a measure of predictive success criteria for the regression model. The data was analyzed on SPSS (version 17.0). This research was conducted in an ethical manner [32] and in compliance with the research guidelines established as per the accreditation standards [33].

Results And Discussion

D. Factor analysis

Table I: Factoring variables that measure the digital marketing skills of entrepreneurs

Factor label	Variables	Factor loadings	Cronbach's Alpha	Variance explained
F1: Content and Promotion	Blogging	.795	0.848	27.061
	Videos	.635		
	Emails	.821		
	Hashtags	.677		
	Landing pages	.834		
	Remarketing	.646		
F2: Communication and Transactions	Online chatting	.821	0.843	25.155
	Online selling	.888		
	Other transactions	.814		
F3: Monitoring and Measurement	Monitoring online traffic	.826	0.927	18.693
	Calculating bounce rate	.931		
	Calculating conversion rate	.853		
	Calculating click through rate	.879		

The results of the factor analysis (Table I) revealed 3 factors that have combinedly explained a variance of 71% within the digital marketing skill set. This finding is in line with the Digital Marketer Model propounded by [34] that included issues related to developing content, performing online transactions, and using evaluation metrics. Factor 1 includes activities that contribute to the 'Content development and Promotion' of small businesses. The internal consistency of these variables is high (Cronbach's $\alpha=0.848$) and this factor explains 26.06% of the variance. Factor 2 that includes activities related to 'Communication and Transactions' too has recorded an acceptable reliability value ($\alpha=0.843$) and explains a variance of 25.16%. Factor 3 is more technical in nature, as it refers to 'Monitoring and Measurement' of online marketing activities [34]. This factor includes activities such as monitoring traffic on the website or social media handle, calculating bounce rate, conversion rate, and click-through rate. This factor has a high-reliability value of 0.927 and explains a variance of 18.69% within the digital marketing skill set. Activities specified in this factor may require specialized knowledge and professional support. In fact, [2] too has emphasized this aspect in the term, 'Digital Entrepreneurial Marketing'.

The Kaiser-Meyer-Olkin (KMO) value of 0.821 ($p<0.01$), and the significant relationship between the correlation coefficients of the study variables at 1% and 5% indicate that the factor analysis can be applied and these variables can be factored. The Bartlett test of sphericity indicated that the Chi-Square value of 693.648 is statistically significant at 1% ($p<0.01$). This tests the null hypothesis that the variables are not correlated and can be grouped. Further, it indicates that the variables in each factor are closely related to each other. Thus, in this

research, we proved that the digital marketing skills need to be seen in groups and categories instead of viewing as individual items (H1).

E. Digital marketing skills of entrepreneurs in Oman

As indicated earlier, the level of digital marketing skills of entrepreneurs in Oman was measured through the application of digital marketing principles. Findings indicated a low-level of application of digital marketing principles by entrepreneurs in Oman ($\bar{x} < 2.0$ on a scale of 5.0) that indicates low level of digital marketing skills. In the analysis of individual factors, it was found that the mean application value of activities related to Factor 1 is 1.65, and Factors 2 and 3 are 1.47 each, falling between the range of ‘not at all applied’ to ‘very rarely’ applied.

F. Perceived digital marketing performance of entrepreneurs in Oman

Table II: Perceived digital marketing performance of entrepreneurs (N=87)

Characteristics of poor digital marketing performance	Mean	Std. Dev.
Receiving very few or less online enquiries	1.46	.567
Facing difficulties in managing customer complaints	1.47	.626
Customers' satisfaction rate is low	1.55	.678
Website or social media handle attracts very poor traffic	1.55	.660
Unable to retain customers. Customer retention rate is low	1.57	.709
Unable to reach the target customers effectively (most of them are still not reached)	1.60	.655
Very low or poor overall digital marketing performance	1.49	.645

Table II presents the entrepreneurs' perceived digital marketing performance of their small businesses. The respondents (entrepreneurs) were required to rate the digital marketing performance of their small business based on 6 parameters presented as statements along with an overall rating statement. The statements were written as problems or difficulties that they have been facing in digital marketing. Strongly agree refers to facing a difficulty and indicates low or poorer perceived digital marketing performance and vice-versa. A lower value indicates high difficulty level. They were informed that the rating must be based on their ability, experience and application of digital marketing concepts. Table 3 contains the parameters arranged in the order of lowest-rated to highest-rated item. The entrepreneurs think that the number of online enquiries that they have been receiving are fewer than they actually thought of ($\bar{x}=1.46$). Similarly, they were not happy with the level or number of traffic that their websites or social media handles attract ($\bar{x} = 1.55$). Furthermore, they think that their online customer reach is lower than they initially thought of ($\bar{x} = 1.60$). The overall rating too is very low ($\bar{x} = 1.49$) indicating the low perceived digital marketing performance of entrepreneurs in Oman. Comparative analysis revealed that women entrepreneurs' perception of their ability to perform digital marketing was significantly lower than that of the male entrepreneurs ($\bar{x} = 1.44$ and $\bar{x} = 1.59$ respectively; $t_{85}=1.566$; $p<0.05$). This finding attains significance in the light of the Government of Oman encouraging women to start small businesses and become entrepreneurs [35].

G. Impact of digital marketing skills of entrepreneurs on their digital marketing performance

Table III: Multiple regression analysis

Predictor (Factor)	β	SE	t	p
Factor 1: Content & Promotion	.248	.031	8.08	0.000
Factor 2: Communication & Transactions	.235	.031	7.67	0.000
Factor 3: Monitoring & Measurement	.145	.031	4.73	0.000

R=.799, R-Square=63.8%, R-Square_(adjusted)= 62.5%, (p<0.01)

B: Regression Coefficient, SE: Standard error of the regression coefficient, R: Average correlation between IVs and DV, R-Square: Percentage of variance explained by the IV in the regression model

Relationship between the digital marketing skills and perceived digital marketing performance was measured through the logistic multiple regression analysis. The factor scores of each of the 3 factors were taken as independent variables (IVs) and the entrepreneurs' perceived digital marketing performance was the dependent variable (DV). All factors had significant linear relationships with the perceived digital marketing performance of the entrepreneurs (p<0.01). Nearly 64% of the variance in the digital marketing performance was accounted by these 3 factors (Table III). The regression equation is:

$$\text{MarkPerf} = \alpha + \beta * F1 + \beta * F2 + \beta * F3 \quad (1)$$

MarkPerf is the perceived digital marketing performance of the entrepreneurs

α is the regression constant

β is the beta coefficient

F1 is the digital marketing skills related to Content development and Promotion

F2 is the digital marketing skills related to Communication and Transaction

F3 is the digital marketing skills related to Monitoring and Measurement

The equation is translated as:

$$\text{Perceived digital marketing performance} = 1.529 + (.248 * \text{Factor 1}) + (.235 * \text{Factor 2}) + (.145 * \text{Factor 3}) \quad (2)$$

A unit change in Factor 1 will have a positive effect of .248 times on the digital marketing performance of the entrepreneurs. Similarly, a unit change in Factor 2 will have a positive effect of .235 times, and a unit change in Factor 3 will have a positive effect of .145 times of the digital marketing performance of entrepreneurs (2). Thus, the hypothesis that the digital marketing performance is dependent upon the digital marketing skills is proved (H2).

Conclusion And Recommendations

Digital marketing has become a business imperative in Oman as individual entrepreneurs are being encouraged to be involved in the Omani economy [9]. In this research, we have attempted to find out the level of digital marketing skills among the entrepreneurs. The assumption is that those who have digital marketing skills apply digital marketing principles. Data collected from 87 entrepreneurs in Oman concluded that the digital marketing skills of entrepreneurs are low. Aspects such as using hashtags, sending direct marketing emails, uploading videos, writing blogs, chatting with potential and current customers, monitoring online traffic, calculating bounce rate, click-through rate, conversion rate, etc. are poorly performed by the entrepreneurs in Oman. Entrepreneurs in Oman perceive low digital marketing performance of their small businesses. Entrepreneurs think that they need to improve the digital marketing performance of their small business. It was found that there is a relationship between the digital marketing skills of the entrepreneurs and their digital marketing performance and that the level of digital marketing performance is dependent upon the level of digital marketing skills possessed by entrepreneurs.

The digital marketing performance of small businesses can be increased by increasing the digital marketing skills of entrepreneurs [36]. Entrepreneurs need to be taught, trained, or supported in aspects related to, writing

blogs, making and uploading effective videos, writing professional emails, using hashtags, chatting professionally with present and potential customers, performing sales funnel online, monitoring traffic on their website or social media handle, calculating bounce rate, conversion rate, etc. [29]. [37] recommended that small and medium firms need to improve their digital competencies. Though this suggestion was for European firms, it can be generalized, as digital marketing has become a universal practice. The mere provision of funds may not suffice and entrepreneurs need guidance, training, and support in digital marketing. More than three decades ago, [38] recommended that entrepreneurs need to be trained in the field of marketing.

Practical Implications

[39] opined that the major challenge is the lack of professional market knowledge of Omani entrepreneurs. It was indeed reported by [40] that there is a need to improve marketing discipline in different sectors such as fisheries in Oman. [41] too indicated that insufficient, incomplete, and incompetent marketing practices could be the reasons for the lack of desirable growth in the tourism sector in Oman. Though the above research was related to the pre-internet era, our findings are related to the application of marketing principles in the ongoing internet era, a.k.a., digital marketing. Our research adds value to the current and ongoing practical marketing conditions wherein online or digital marketing is being extensively by all businesses in general and small business owners, entrepreneurs, in particular.

Future Scope Of The Study

As it was found that female entrepreneurs perceive more difficulty in conducting digital marketing, more studies can be conducted to identify the difference between groups, such as the type and nature of business. More such studies can be conducted in other parts of the Middle East or the world.

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