

## Factors Influencing E-commerce Adoption: Industry Sector, Age Company, and Managerial Education

Zhaneta Ndrejoni<sup>1</sup>, Ledia Sula<sup>2</sup>, Liljana (Elmazi Billa)<sup>3</sup>

<sup>1</sup>Department of Marketing - Turismt/Faculty of Economy, University of Tirana, Albania  
zhaneta.ndrejoni@unitir.edu.al

<sup>2</sup>Department of Agribusiness/ Faculty of Economy, University of Logos, Tirana, Albania  
ledia.sula@kulogos.edu.al

<sup>3</sup>Department of Marketing - Turismt/Faculty of Economy, University of Tirana, Albania  
[lilielmazi@yahoo.com](mailto:lilielmazi@yahoo.com)

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**Abstract:** The development of technology and the digital age have prompted significant societal, economic, political, cultural, and sports-related changes. Changes have been particularly evident in the field of economy, specifically in marketing. With the development of digital technology, the way products and services are marketed has undergone a transformation. Digital marketing emerged after fundamental technological changes in communication, exchange, and lifestyle. Marketing channels have dramatically changed over the past century with technology and innovation. Advertisers increasingly seek valuable partners, especially consumers, with more efficiency, effectiveness, significance, and persuasive power.

Therefore, the aim of this study is to investigate how the managerial or owners education and the characteristics of the company influence the application of digital marketing. The research was conducted through Google Forms, sending the questionnaire to companies at their official email addresses. Managers and owners of businesses in Tirana were the contact persons. The sample was random, and the data were distributed and collected by the authors personally.

### I. INTRODUCTION

Education data of business managers play a crucial role in shaping digital marketing strategies, enabling businesses to build the right audience, personalize content, choose the most effective platforms, and optimize resource allocation for maximum impact.

Therefore, the aim of this paper is to investigate how the education level of managers or owners and company attributes influence the application of digital marketing. The research was conducted through Google Forms,

sending the questionnaire to companies at their official email addresses. Managers and owners of businesses in Tirana were the contact persons. The sample was random, and the data were distributed and collected by the authors personally.

Initially, the data were encoded numerically in Excel, then imported into SPSS (version 25). Descriptive and comparative data were analyzed, and hypothesis testing was performed using non-parametric tests such as the Mann Whitney U-test and Kruskal Wallis.

For our research, we formulated one hypothesis and three sub-hypotheses:

**H1. There are no significant differences between demographic factors Industry Type, Company Maturity, and Managerial Education in relation to the application of digital marketing**

H1.1 There are no significant differences between sectors in relation to the application of digital marketing in Tirana.

To verify the above hypothesis, the Kruskal Wallis test was used. In this case, the difference between the sectors of companies regarding the application of digital marketing was analyzed.

H1.2 There are no significant differences in the age of the company regarding the application of digital marketing in Tirana.

To verify this hypothesis, the Kruskal Wallis test was used, where, as mentioned above, the difference between the age of companies regarding the application of digital marketing was analyzed..

H1.3 There are no differences between the education levels of business owners and the application of digital marketing in Tirana.

To verify the above hypothesis, the Kruskal Wallis test was used. In this case, the difference between the education level of managers and the application of marketing was analyzed.

Our study will also provide concrete recommendations for the private and public sectors, as well as for increasing the use of digital marketing by businesses in Tirana, which would impact their performance positively.

## II. LITERATURE REVIEW

The development of technology and the digital age have prompted significant societal, economic, political, cultural, and sports-related changes. Changes have been particularly evident in the field of economy, specifically in marketing. With the development of digital technology, the way products and services are marketed has undergone a transformation, leading to the need to explain the various forms of digital marketing. Along with its development, many scientific studies, articles, and books have been published, especially in widely known languages such as English. In the transition of the twentieth century, the internet gained more attention. Related to this influence, it has been found that many articles in the literature of digital marketing before the 2000s focused on the use and application of the internet by companies, illustrating how the internet is a business issue (Busca & Bertrandias, 2020).

Digital marketing emerged after fundamental technological changes in communication, exchange, and lifestyle. Marketing channels have dramatically changed over the past century with technology and innovation. Advertisers increasingly seek valuable partners, especially consumers, with more efficiency, effectiveness, significance, and persuasive power. A digital revolution is taking place as factories, manufacturers, and their customers become more connected than ever (Welford, 2020).

In digital marketing, customers and consumers participate proactively with owners and companies. Customers do not have a passive role and are in a highly interactive position with companies. In using social media and not traditional media channels, companies encourage customers and internet users to be part of the marketing machine in posting content (e.g., comments and reviews), building relationships, and engaging with products online (Serafinelli, 2018).

The internet has changed the costs of marketing and has expanded the models, techniques, media, and diversity of marketing. Digital marketing is an alternative that reduces costs and is a fundamental tool in business performance. The fundamental basis for the development of digital marketing in the business environment is the internet. It is the technology that allows the use of electronic marketing techniques and has allowed the creation of the WorldWideWeb, as we know it today, and it is the technology that has allowed the evolution and adaptation of traditional marketing techniques to the new digital environment (Garcia, et al., 2019).

Marketing as an activity, group of institutions, and processes for creating, communicating, distributing, and exchanging offers that have value for consumers, clients, partners, and society in general (AMA, 2017), in its digital version, its main core is communication. The results clearly show that communication is the key component in digital marketing. However, digital marketing is not limited to content dissemination; it extends to customer relationships and represents a powerful tool for building, consolidating, and maintaining brand awareness (Verissimo & Tiago, 2014).

When digitization of businesses dominates and customers and consumers are online in the majority of social situations, for digital marketing, information is the key. Direct and indirect information is an essential part of marketing. Marketing research and consumer behavior involve gathering information about customers and potential customers to increase market exchange value for the customer, and thus, the organization.

Marketing communication involves conveying information or messages to customers that may influence their behavior (Rowley, 2008).

Proficiency in digital marketing is a necessity for all organizations. Skills such as building websites; maximizing the potential of social media such as Facebook and Twitter; Search Engine Optimization (SEO); mobile applications; conversion and digital analytics knowledge for assessing the effectiveness of digital approaches are among the

### III. METHODOLOGY AND METHODS

The research was conducted through Google Forms, by sending the questionnaire to companies, to their official email addresses. Managers and owners of small and medium-sized businesses in Tirana were the contact persons. The sample was random, and the data were collected and gathered by the authors personally. Initially, the data were coded numerically in Excel, then transferred to SPSS (version 25). Descriptive and comparative

data were analyzed, and hypothesis testing was conducted using non-parametric tests such as Mann-Whitney U-test, Kruskal-Wallis.

Sample 200 questionnaires were sent out, and only 175 were returned completed, of which 15 were deemed invalid due to missing data in their responses. The sample was random, and the number of 160 is representative in relation to the number of businesses in Tirana. The sample size was determined based on the number of businesses, as there is no exact figure for the number of managers.

#### IV. RESULTS

H1.1 There are no significant differences between sectors regarding the implementation of digital marketing in Tirana.

To verify the above sub-hypothesis, Kruskal-Wallis test was used, analyzing the difference between sectors of companies regarding the implementation of digital marketing.

TABLE 1: The sectors and the application of digital marketing

Sector		N	Mean Rank
Digital marketing application	Production	22	119.00
		101	110.05
	Commerce	37	117.12
	Total	160	

Source: Author

According to the above result in Table 1, we can observe that managers from manufacturing companies have a stronger preference, although it is not significant as a factor that may influence the application of digital marketing, compared to the other two sectors of companies..

TABLE 2: The company sector and digital marketing

Test Statistics <sup>a,b</sup>	
	Digital marketing application
Kruskal-Wallis H	0.809
Df	2
Asymp. Sig.	0.667
a. Kruskal Wallis Test	
b. Grouping Variable : Sector	

Source: Author

Therefore, it can be concluded that, according to the final results (Tab. 2), there is no significant difference between the sectors of companies and their attitudes towards the application of digital marketing.

H1.2 There are no significant differences in the age of the company regarding the implementation of digital marketing in Tirana.

To verify the above sub-hypothesis, Kruskal-Wallis test was used, analyzing the difference between the age of companies regarding the implementation of marketing.(table 3)

TABLE 3: The age of the company and the application of digital marketing

Ranks			
Age Company		N	Mean Rank
Application digital marketing	0-10	1	85.50
	11-20	15	51.50
	21-30	75	105.03
	Over 31	69	99.17
	Total	160	

Source: Author

According to the above result (Tab. 3), we can affirm that the age of the company is not significant as a factor that may influence the application of digital marketing..

TABLE 4: The age of the company and the application of digital marketing

<b>Test Statistics<sup>a,b</sup></b>	
	Application of digital marketing
Kruskal-Wallis H	3.458
Df	4
Asymp. Sig.	0.484
a. Kruskal Wallis Test	
b. Grouping Variable: Age Company	

Source: Author

Therefore, it can be concluded that, according to the final results (Tab. 4), there is no significant difference between the age of the companies and their attitudes towards the application of digital marketing..

H1.3 There are no differences between the level of education of business manager or owners and digital marketing implementation in Tirana.

To verify the above hypothesis, Kruskal-Wallis test was used, analyzing the difference between the level of education of managers and the implementation of marketing.

o verify the above hypothesis, the Kruskal-Wallis test has been used. In this specific case, I have analyzed the difference between the level of education of managers and marketing application..

TABLE 5: The level of education and the application of digital marketing.

<i>Ranks</i>			
	Your education	N	Mean rank
The application of digital marketing	Secondary education	16	133.40
	University education	102	120.32
	Postgraduate education	42	104.01
	Total	160	

Source Author

According to the above result in Table 5, we observe that managers with secondary education have a preference for the application of digital marketing, compared to the other two education groups.

TABLA 6: Education digital marketing and Kruskal-Wallis H

<i>Test Statistics<sup>a,b</sup></i>	
	The application of digital marketing
Kruskal-Wallis H	4.961
Df	2
Asymp. Sig.	0.084
a. Kruskal Wallis Test	
b. Grouping Variable: Your education	

Source Author

According to the final results, we find that there is no significant difference between the level of education of managers and their preference for the application of digital marketing (Table 6)

To observe differences between groups about their perceptions regarding the implementation of digital marketing in their enterprises, Mann Whitney U-test was used, which allows comparison of two independent groups to see if there is any significant difference.

In conclusion, based on the results, it was confirmed that there are no significant differences between sector, company size, level of education and the implementation of digital marketing in Tirana.

## V. CONCLUSION

As a conclusion, we can state that:

- There is no significant difference between the sectors of companies and their attitudes towards the application of digital marketing.
- There is no significant difference between the age of the companies and their attitudes towards the application of digital marketing.
- There is no significant difference between the level of education of managers and their preference for the application of digital marketing..

## VI. RECOMMENDATIONS

Businesses, especially larger ones, should have a dedicated marketing department or office, and within it, the digital marketing department should be advanced according to the company's need for digital marketing application and the virtual world. In cases where companies are small and do not have sufficient budget for such, they can contract services from individuals and experts in digital marketing.

The use of the internet and other digital technologies has substantially influenced the fading role and importance of traditional marketing and gradually replaced by digital marketing by businesses in Tirana, and beyond. It is not just a matter of trend, but also practical usefulness, as well as the numerous benefits that digital marketing brings, easily facilitating online communication with customers.

However, from field observations, it is well known that digital marketing is still not being applied satisfactorily by businesses in Tirana, and as a result, there is a need for further promotion aiming at increasing its application level in practice.

Recruiting staff in the digital marketing department or office should be based on professional qualifications and narrow specialization in digital fields.

Despite the current investments of businesses in social networks to promote their products or services, it is recommended that digital marketing investments and activities are based on a pre-established marketing strategy. Through this strategy, the possible effect on business development, potential consumer behavior, as well as the acceptance of orders for distributing products or services to consumers, would be analyzed.



In addition to engaging companies and individuals involved in content creation, enterprise or marketing managers should apply "Do It Yourself" practices to facilitate the distribution of information about the products and services offered, as well as increase promotional activity at much lower costs.

Utilizing the "Do It Yourself" method would encourage them to learn more about the opportunities offered by online platforms, and would influence the generation of new ideas that would better enable the promotion of products and services. Combining usable online tools and platforms for creating content for private posts, in function of creating content for private enterprises, would elevate the speed and simplicity of digital marketing perception to another level.

Following trends through search engines, assessing clicks for specific content, and other reactions to content would allow for easily calculating specific effects during the marketing strategy analysis.

In order to convey certain trends for products or services offered by businesses, it is recommended to increase public opinion measurements because this scientific methodology allows citizens to express their views on quality, price, or similar questions, which in case their expectations are close to the offer of businesses, would eventually turn them into new consumers of those businesses. Consumer behavior analysis, conducted through regular measurements, leads to the approximation of consumer attitudes and the opportunities that businesses offer within the sales relationship.

In order to intensify proper treatment of consumers, it is recommended that businesses, through various communication channels, especially online communication channels, raise the level of handling complaints from consumers, with the aim of providing consumers with the opportunity to feel valued and well-treated. The eventual correction of specific cases would serve as good marketing for potential other consumers, appreciating the business for the professionalism shown and their dedication to consumers.

Organize trainings and design professional development programs to increase the level of workforce qualification.

## VII. FINAL CONCLUSIONS

*Our results are in full compliance with the studies conducted by the authors: Ritz, W., Wolf, M., & McQuitty, S. (2019); Susanti & Astuti (2020); Thang Ha (2020); Liao et al. (2022); Blagoeva & Mijoska (2017); Suroso, A., & Rafinda, A. (2021), Sinanagić, A., Čivić, B., & Muratović, A. (2019), and Wolf, M., & McQuitty, S. (2011).*

*According to the results found, we can conclude that the age of the company or the years of business experience is not significant as a factor that may influence the application of digital marketing. Therefore, it can be concluded that according to the final results, there is no significant difference between the age of the companies.*

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