

IMPACT OF BLOCKCHAIN TECHNOLOGY ON CONSUMER TRUST IN DIGITAL MARKETING

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Abstract

The presentation of countless kinds of digital platforms for enhancing the reach of a company can intensify the separation of a business not only in the inherent country but also in a foreign country. Aggravation of the top customer's deal is the first factor for the growth of the trust of the customers in the DM. Division of satisfactory and encouraging feedback to the customer about a business is the second factor of the BCT. The primary quantitative technique has been cast in the schoolwork and the composed data from the primary foundations are studied by the SPSS software. 55 responses were taken and 10 inquiries were used in the survey. The purpose of the values of the factors shows that Blockchain knowledge is one of the most actual. Directing and personalizing the creative methods have measured the data to authorize the user-controlled methods which are solely functional. Countless technical methods and tools are helpful for the growth of the privacy and security of the various landscapes of the DM that enhance the trust among the people on the DM.

Keywords: Blockchain Technology, Digital Marketing, Foreign Country, Social Media.

INTRODUCTION

Blockchain technology is mainly a method or process by which the data and information of a business can be recorded easily and restrain hacking and manipulating of the business data. As per the view of Rejeb, Keogh, J. G., & Treiblmaier (2020), the use of Blockchain technology or BCT in a business increases the security of vital and important data which improves the level of privacy of the company. Digital marketing is the most popular and famous marketing technology in the present. The application of various kinds

of digital platforms for enhancing the reach of a company can increase the polarity of a business not only in the native country but also in a foreign country. As per the view of Boukis (2020), with the help of the application of the BCT in a business workplace, the distribution of the ledger can be done in a business for the distribution of the transactions around the network. Therefore, the impact of the BCT on the digital marketing process cannot be denied in the current era.

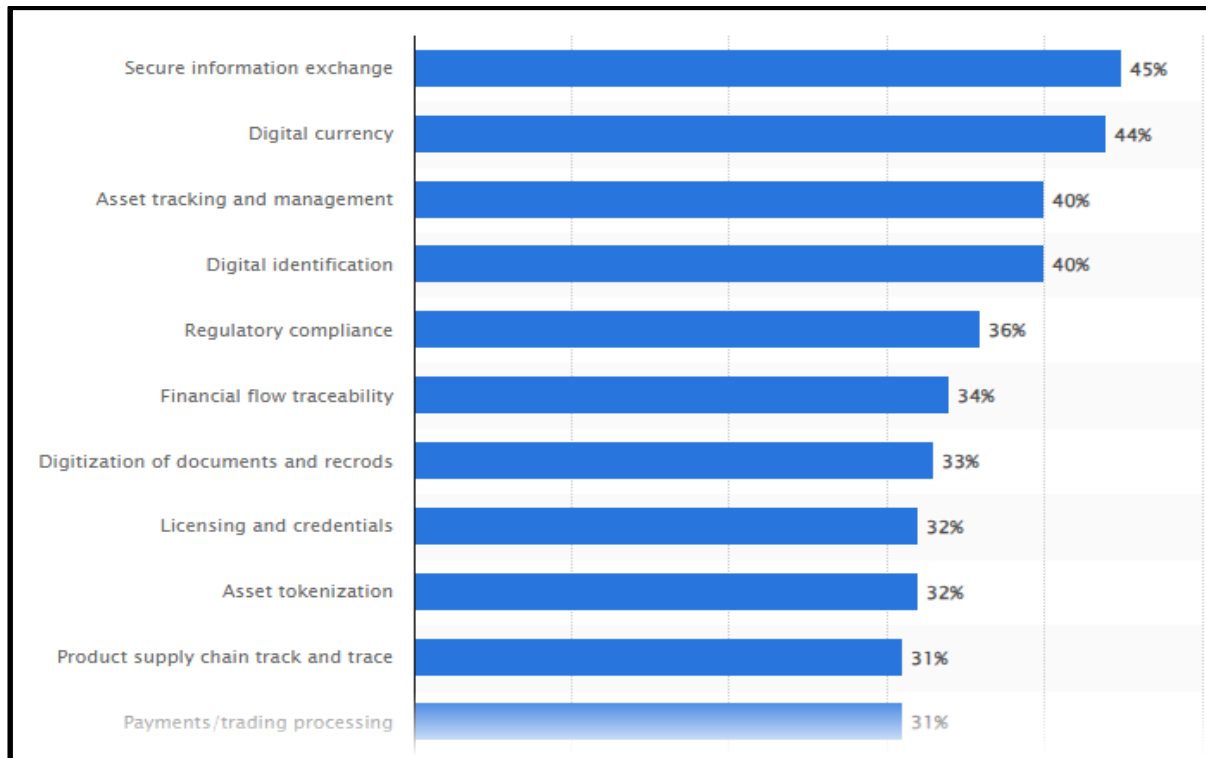


Figure 1: Blockchain technology in the digital marketing system

(Source: Statista, 2023)

From the above statistical graph, it can be said that the percentage of security in the exchange of information is 45% and the percentage for digital identification is 40%. Also, the above statically graph indicates that the lowest percentage of the application of the Blockchain in digital marketing is the payment process online. According to Mukherjee, Chittipaka, V., & Baral (2021), the inclusion of the computer in the BCT system increases the capability of the technical methods. Application of the BCT in digital marketing or DM makes the payment process easier for the people and the receipt of the transaction takes the post proof of the transaction of the payment process. Moreover, the use of the Blockchain includes myriad uses and promises to the customers and people. As per the opinion of Garg, Gupta, S., & Gupta (2022), the use of the Blockchain in the DM helps to track the advertisement and adjust the strategies and planning of the business. Therefore, the promotion of the business in social media also increases the base of the targeted audience of the business and increases the popularity of the business.

Besides the advantages of the use of the BCT in the DM, there are some drawbacks to the technical process. The use of an excessive amount of energy in the BCT is one of the biggest disadvantages of the BCT. In the present day, the increasing numbers of digital hackers become one of the most common and vital issueless of the BCT. As per the view of Rahman (2021), the issues in digitalization become the issues for the business and the service sector. Therefore, the use of the BCT has both positive and negative impacts on DM in the current era.

Aim

The main purpose of the study is to determine the importance of the BCT for consumer trust on the DM platform.

Research objectives

The objectives of the study are:

RO1: To determine the advantages and disadvantages of the use of BCT on the DM

RO2: To investigate the fields and factors in which the BCT is used to increase the customer's trust

RO3: To evaluate the various functions of the BCT in the DM

RO4: To estimate the future scope of the use of BCT on consumer trust in digital marketing

Research questions

The arising questions of the study are:

RQ1: What are the advantages and disadvantages of the use of BCT on the DM?

RQ2: What are the fields and factors in which the BCT is used to increase the customer's trust?

RQ3: What are the functions of the BCT in the DM?

RQ4: What is the future scope of the use of BCT on consumer trust in digital marketing?

LITERATURE REVIEW

Advantages and disadvantages of the use of BCT on the DM

The use of the BCT has some advantages and disadvantages in order to the building of the trust of the customers in the DM system. The **advantages** of the application of the BCT include transparency in the transaction in the online platforms (Verma, & Kaur, 2022). The application of the BCT also helps to build trust and reliability by increasing transparency. The use of cryptocurrency is one of the positive factors of the implementation of trust among the people. Self-execution of the smart contract is another factor in the benefits of the BCT.



Figure 2: Advantages and disadvantages of the BCT

(Source: Verma, & Kaur, 2022)

The above figure shows that the **disadvantage** of the BCT is the lack of the scale for the increasing of the support of the transaction. As per the view of da Silva, & Moro (2021), the excessive use of energy is one of the most common problems of the application of the BCT in the online transaction process. Also, the lack of proper training of the people about DM is another problem of the system, and this also deals with the increment of digital hacking.

Factors in which the BCT is used to increase the customer's trust

There are main five factors of the BCT that help for the increasing of the trust of the customers for DM around the world. As per the view of Antoniadis, Kontsas, S., & Spinthiropoulos (2019), an increment of customer trust and reliability is one of the most effective and impactful for enhancing the rate of the transaction of people and DM through the internet and digital process. Provocation of the top customer's service is the first factor for the increment of the trust of the customers in the DM. Sharing favorable and positive feedback to the customer about a business is the second factor of the BCT that is the reason for the enhancement of the reliability of the customer trust (Gleim, & Stevens, 2021). Hence, transparency and honesty are the other factors of the BCT and the use of the BCT increases the reachable of the business and organization to all of the people around the world.

Various functions of the BCT in the DM

The factors and the assets of the BCT are the reason for the increasing trust and the rate of transection in the online through the BCT. According to Tan, & Saraniemi (2023), decreasing the risk and the challenges is one of the main factors of the BCT which increases the trust among the people and the rate of transaction through the DM. With the application of the BCT, the tracking of the products online become easier and more comfortable for customers.

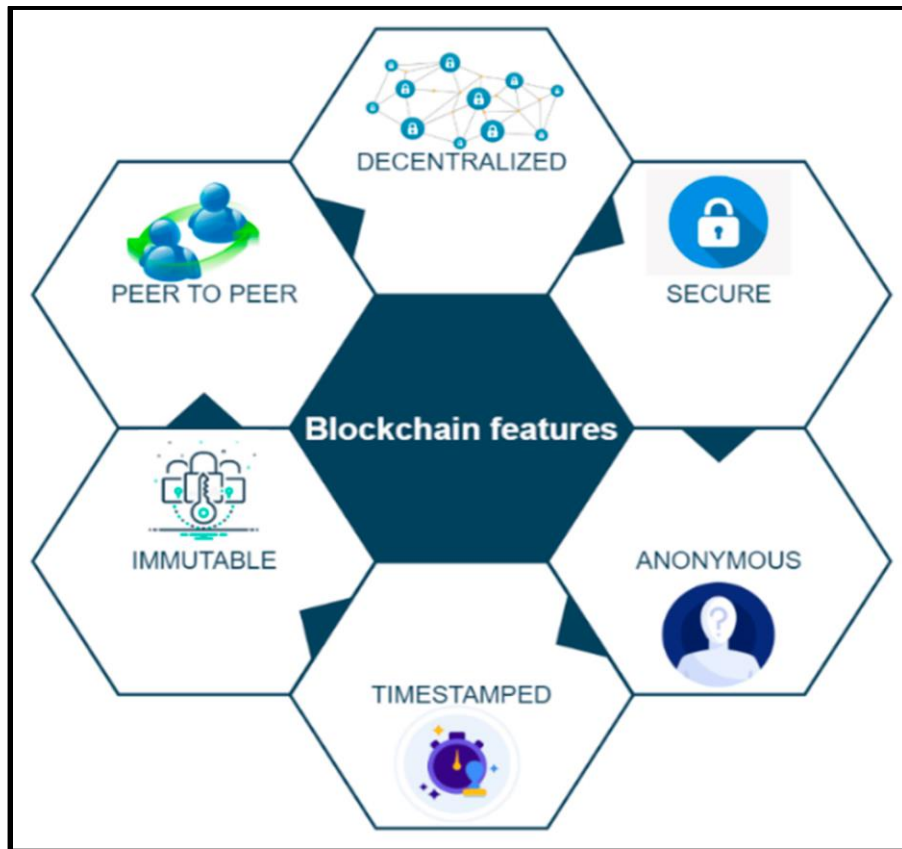


Figure 3: Features of the BCT

(Source: Tan, & Saraniemi, 2023)

Figure 4, shows the various kinds of features and use of the BCT for DM in the current days. Protection and anonymity are two main features of the BCT and with the help of these two features, the rate of selling products through the DM can be increased (Brauer, & Linnala Eriksson, 2020). Thus, the application of the BCT can be effective and useful for the increment of the trust and popularity of an online business.

Future scope of the use of BCT on consumer trust in digital marketing

Currently, the use of the BCT cannot be denied for the improvement of the process of transaction and marketing in the digital platform. The execution of the BCT in the DM process can be beneficial and helpful for the elimination of fraud in digital marketing and

increase data privacy (Stallone, Wetzels, M., & Klaas, 2021). The decentralization of the platforms for the content of the business and providing the advertisement of a business become easier for the improvement of the DM in the present era. The improvement of the use and application of the BCT can be helpful for the future of the use of cryptocurrency through the DM process. Identification of fraud and hackers can also be properly determined with the proper use of the BCT in the marketing process (Menon, & Mady, 2022). Therefore, the uses of the BCT become helpful for the present and the future of the marketing system.

METHODOLOGY

The use of the primary quantitative method increases the reliability and the trustworthiness of the impact of the BCT for the increment of the trust of the customers in the DM platform. The application of the BCT in the study makes the study more reliable as in the data collection methods the data and the information are collected from the people with the use of the survey process. As per the view of Aliahmadi, Nozari, H., & Ghahremani-Nahr (2022), the use of primary quantitative methods in a study increases the accuracy and authenticity of the results of the study. The doctors, professors, students, and businessmen are the samples of the survey and the people who participated in the survey are between the age group 25 to 66 years. The analysis of the data and the information collected from the people was done with the help of the SPSS software. Each of the people who participated in the survey was asked 10 questions related to the topic and a total of 55 people were taken to make the result of the study stronger.

Findings and Analysis

Demographic analysis

Gender

Table 1: Table of gender frequency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	16	29.1	29.1	29.1
	Male	31	56.4	56.4	85.5
	Prefer not to say	8	14.5	14.5	100.0
	Total	55	100.0	100.0	

(Source: IBM SPSS)

From the aloft Table 1, it can be said that the total valid percentage of females among all people who experienced the survey of the study is 29.1% and the cumulative percentage

of females is also 29.1%. The valid percentage of the people who do not like to coop their gender is 14.5% and for the people who are male is 56.4%. Therefore from the above analysis, it can be said that the males are the highest participants in the survey.

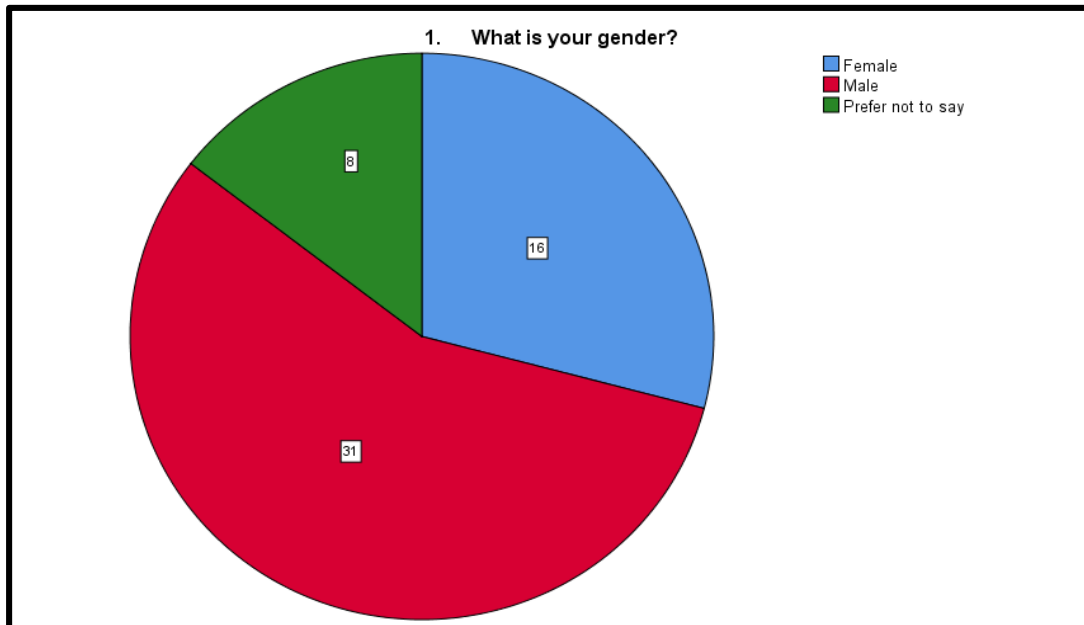


Figure 4: Frequency of Gender

(Source: IBM SPSS)

From the Figure frequency of the gender, it is clear that the percentage of the people who are female and participated in the survey is 16% and the percentage of the people who are male is 31%. The percentage of people as per the pie chart who do not want to say their gender is 8%. Therefore, it can be believed that most of the people who are male have taken a part in giving their perspective about the bearing of Blockchain technology on consumer conviction to digital marketing.

Age

Table 2: Frequency of age

2. What is your age group?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25 to 35 years	7	12.7	12.7	12.7
	35 to 45 years	8	14.5	14.5	27.3
	45 to 55 years	24	43.6	43.6	70.9
	55 to 66 years	16	29.1	29.1	100.0
	Total	55	100.0	100.0	

(Source: IBM SPSS)

From frequency Table 2, it can be delineated the valid percentage, percentage, frequency, and cumulative percentage of the frequency of the age of the participants. It can be transported from the above table that the rate of the cumulateness of the people between the age group 5 to 35 years is 12.7% and that for the people of age group between 35 to 45 years is 27.3%. The value of the valid percentage of persons in the age group between 45 and 55 years is 43.6%. Therefore, from the above parentage, it is clear that the people between the age group 45 to 55 took part in the survey highest among all.

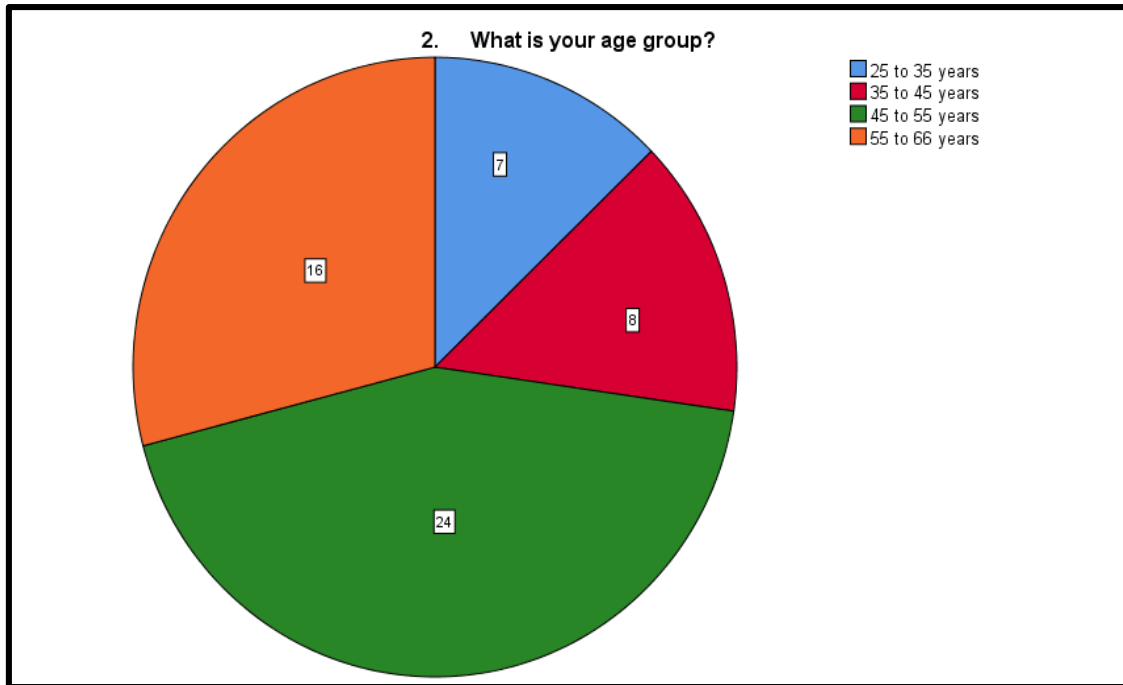


Figure 5: Frequency of age

(Source: IBM SPSS)

Figure 7 of the pie chart communicates the value of the percentage of the age of the representative that has experienced the survey. The percentage of samples from the age group 25 to 35 years is 7% which is the lowest proportion and the proportion of the people of the age group between 45 and 55 is 24%. Thus, people between 25 and 35 are the most participated in the survey.

Profession

Table 3: Frequency of Profession

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Business man	7	12.7	12.7	12.7
	Doctor	8	14.5	14.5	27.3
	Professor	16	29.1	29.1	56.4
	Students	24	43.6	43.6	100.0
	Total	55	100.0	100.0	

(Source: IBM SPSS)

The above table 3 of the profession frequency discussed the frequency of the people with distinct professions and corrections. Most of the people who are taken in the survey are professors. The number of people who are professor and participated in the survey are 16 and the students are 24. The value of percentage of the people who are businessmen is 12.7%. Hence, it can be clearly said that the students are the most participated in the survey.

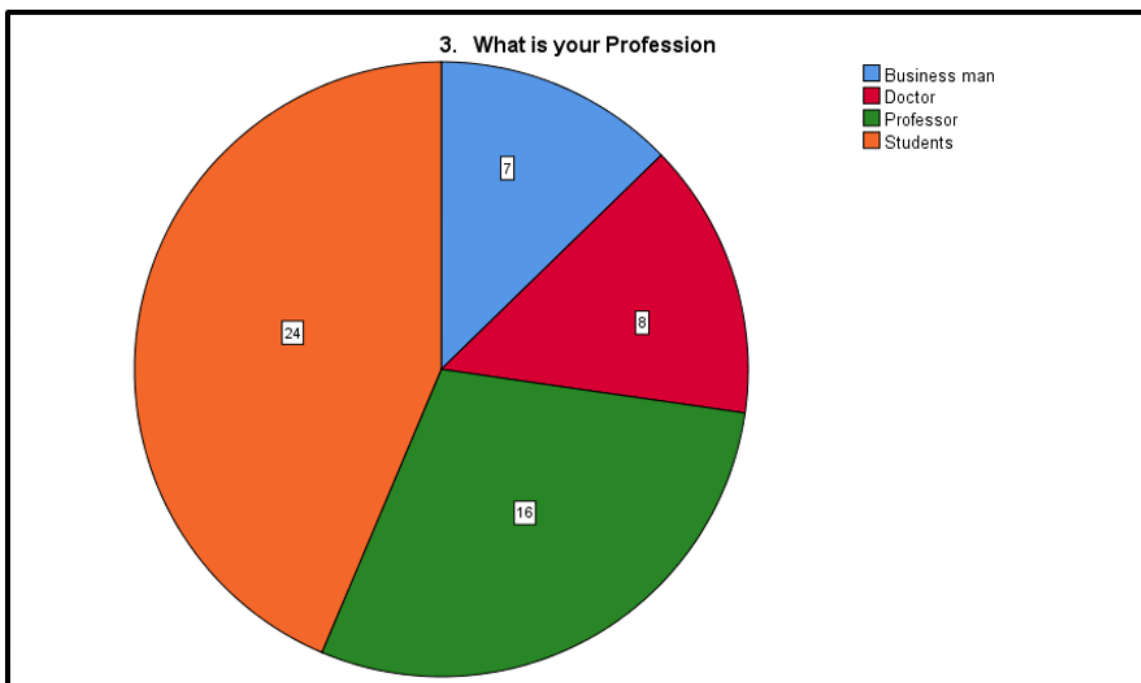


Figure 6: Frequency of Profession

(Source: IBM SPSS)

From the above Figure 8, it can be articulated that the percentage of the people who are doctors by an occupation that can be gauged from the survey is 8% and the percentage of people who are professors is 16%. The participants of the survey who are students are 24%. The businessman is the least participated in the survey.

Descriptive analysis

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
IV1.1	55	1	5	3.33	1.139	-.607	.322	.160	.634
DV	55	4	5	4.58	.498	-.341	.322	-1.956	.634
IV2.1	55	3	5	4.02	.933	-.037	.322	-1.889	.634
IV3.1	55	3	5	3.98	.757	.031	.322	-1.226	.634
IV3.2	55	1	5	3.71	1.301	-1.109	.322	.280	.634
IV4.1	55	4	5	4.44	.501	.264	.322	-2.005	.634
Valid N (listwise)	55								

Figure 7: Descriptive statistics

(Source: IBM SPSS)

The above table 9 of the descriptive inspection shows the value of the standard deviation, median, mean, and mode for properly considering the impact of Blockchain technology for the investigation of the trust of the customers. The value of the standard deviation or std. of the survey is 1.139 of IV1, which shows the impact of the customer's integration to the business for the growth of Blockchain technology.

Hypothesis 1

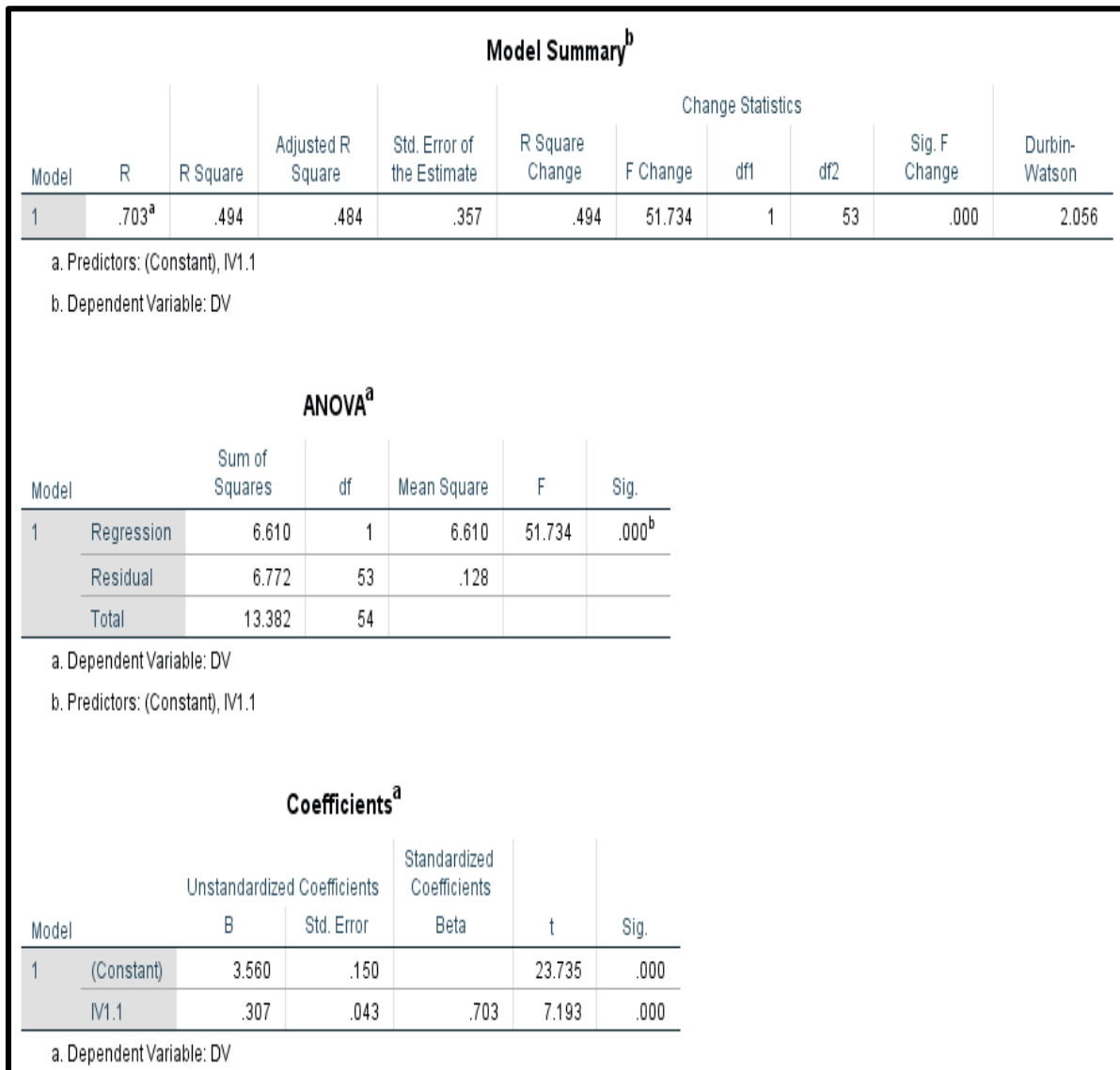


Figure 8: Regression of Hypothesis 1

(Source: IBM SPSS)

From the above figure 10 of a survey of the analysis, it can be defined that the position of the R is 0.703, and thus the adjusted square value of R square is 0.484. As per the recommendation of Varma et al. (2022), the most adjacent value of the regression analysis between the DV and IVs indicates the dependency of the DV on the IV of a study. The value of the mean square of IV1.1 is 6.610 and the standard error is 0.150. The determination of the values of the above factors shows that Blockchain technology is one of the most effective and important for increasing the accuracy of data and information.

Hypothesis 2

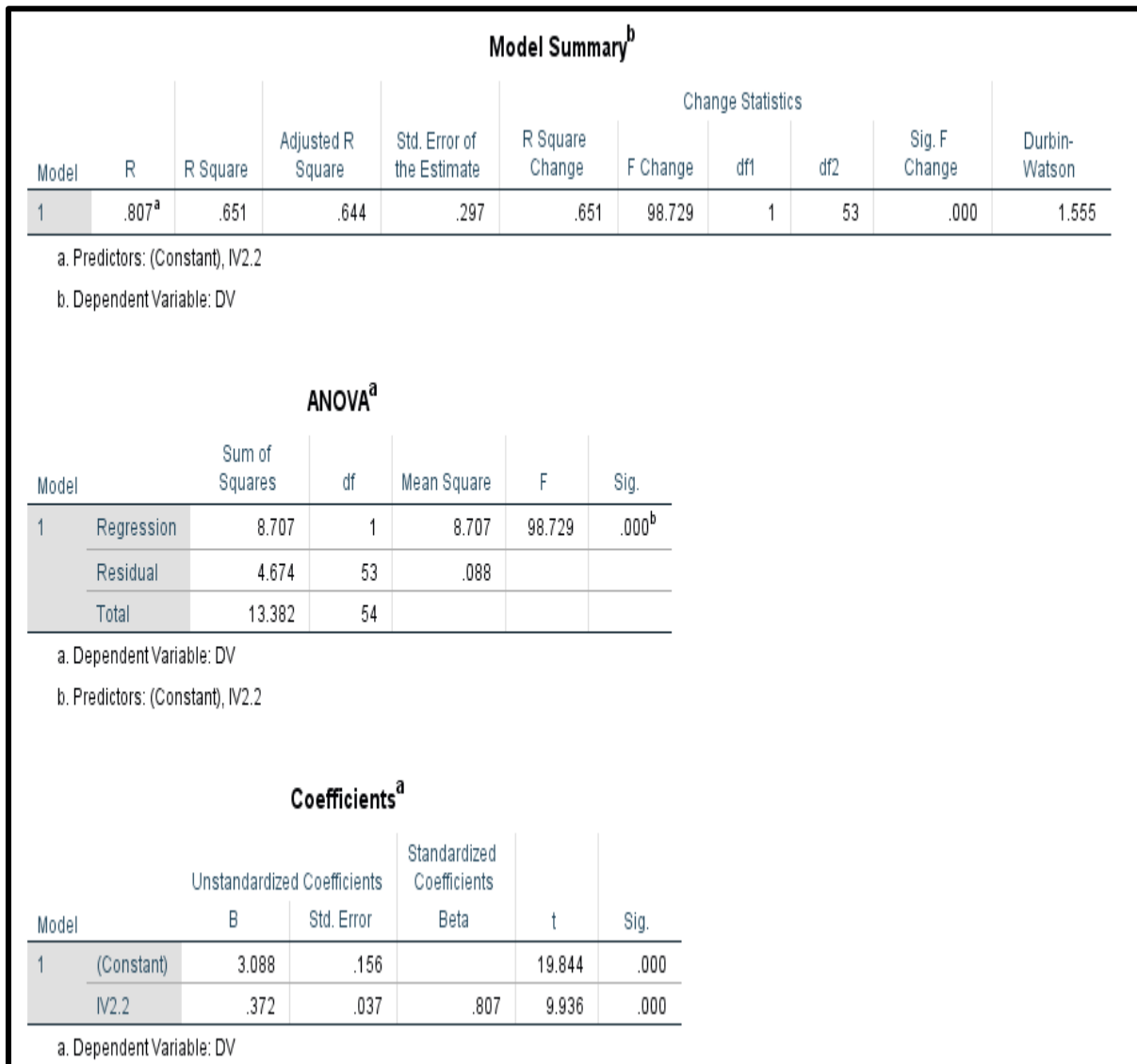


Figure 9: Regression of Hypothesis 2

(Source: IBM SPSS)

From above figure 11, it can be unambiguous that the compromise of the factor of the coefficients of the uniform elements of the control of the Blockchain technology in the field of digital marketing is 0.651. The value of the Std. the error of the IV2.2 of the study is 0.297. The regression value of the sum of the squares is 8.707 and the residual value of the sum, of the squares of the factors is 4.674. The above value of the residual factors of the survey indicates that the warranty management factors of the management and the customers depend on the impact of blockchain technology.

Hypothesis 3

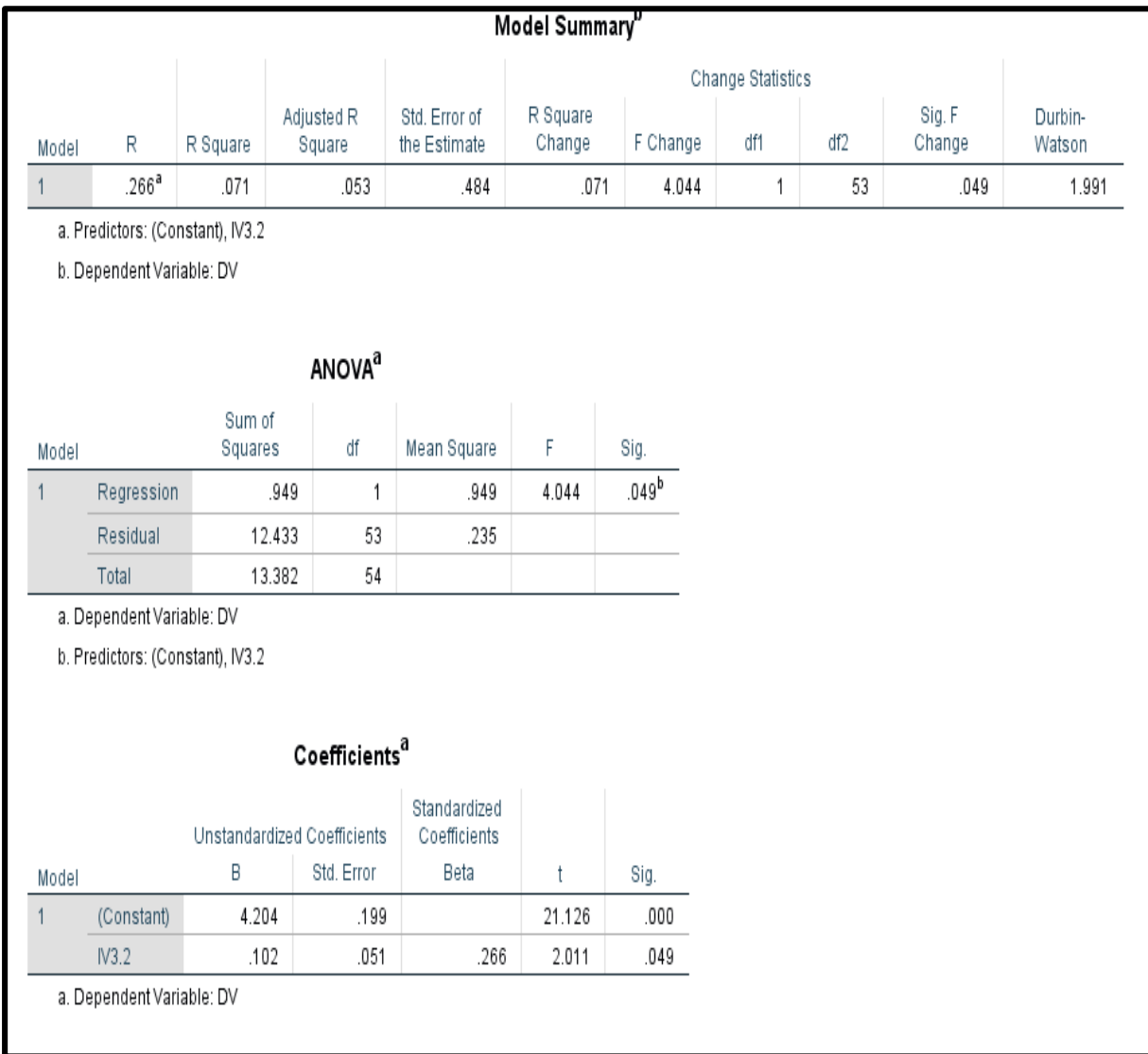


Figure 10: Regression of Hypothesis 3

(Source: IBM SPSS)

The above figure 12 of the third hypothesis of the study defined the value of R squares that is the DV of the research IV3.2 is 0.071 and the value of the R is 0.266. The rate of the sum of the residual value is 12.433. The value of the standardized coefficients of the independent variable IV3.2 is 0.266. The above value of the residual and the regression of the above table for IV3.2 of the survey are all positive. The positive value indicates that there is a positive impact of the Blockchain for the increment of trust and the transparency of the technical system in the digital marketing sector.

Correlation test

		Correlations					
		IV1.1	DV	IV2.1	IV2.2	IV3.1	IV4.1
IV1.1	Pearson Correlation	1	.703**	-.041	.567**	-.293*	.524**
	Sig. (2-tailed)		.000	.769	.000	.030	.000
	N	55	55	55	55	55	55
DV	Pearson Correlation	.703**	1	-.342*	.807**	.029	.746**
	Sig. (2-tailed)	.000		.011	.000	.836	.000
	N	55	55	55	55	55	55
IV2.1	Pearson Correlation	-.041	-.342*	1	-.460**	-.812**	-.017
	Sig. (2-tailed)	.769	.011		.000	.000	.900
	N	55	55	55	55	55	55
IV2.2	Pearson Correlation	.567**	.807**	-.460**	1	.023	.533**
	Sig. (2-tailed)	.000	.000	.000		.867	.000
	N	55	55	55	55	55	55
IV3.1	Pearson Correlation	-.293*	.029	-.812**	.023	1	-.369**
	Sig. (2-tailed)	.030	.836	.000	.867		.006
	N	55	55	55	55	55	55
IV4.1	Pearson Correlation	.524**	.746**	-.017	.533**	-.369**	1
	Sig. (2-tailed)	.000	.000	.900	.000	.006	
	N	55	55	55	55	55	55

** . Correlation is significant at the 0.01 level (2-tailed).
 * . Correlation is significant at the 0.05 level (2-tailed).

Figure 11: Correlation

(Source: IBM SPSS)

Table 13 of the correlation values of IV 1.1, IV2.1, IV2.2, IV4.1, and IV3.1 and the DV are envisaged in the above diagram. The correlation value of IV1.1 and DV is 0.703 and this positive correlation value is nearly to the value of 1. This value indicates the positive and maximum number of the impact of IV1.1 on the DV of the learning. The significant value of the IV4.1 and the DV is 0.746 and the high positive value between the IV4.1 and DV shows the high connection of the DV on the IV4.1. Thus, from the analysis of the above value, it can be concluded that the impact of digitalization on online marketing cannot be denied in the present day.

DISCUSSION

Blockchain technology has received a greater marketing value that shows mastery in marketing practices. With Blockchain, marketers are valued highly and the algorithm mitigates the risk factors that save the data from getting breached. This has a greater control of the authorized personal information and is marked by greater control. According to the statement by Rathore (2019), consumers are highly benefited from the concept of Blockchain which is later on simulated towards the fundamental approaches and is led by the quality review practices. Targeting and personalizing the creative approaches have controlled the data to empower the user-controlled approaches which are solely functional. It has indeed transformed the marketing value of the transaction analysis which leads to data encryption activities. It is fascinating to address the conceptualized practices which are verified by reshaping the allowances in terms of ethical services. As per the critical analysis by Coita, Abrudan, M. M., & Matei (2019), concerning revolutionary ideas, creating a more secure and evident business environment is a part of the achievement that shows mastery in marketing practices. The relativity of digitization has predetermined the practitioner values in serving the project campaigns that increase the accuracy level of the advertisements. This has helped in achieving enormous resources that are created by the functional values of the tamper-proof nature of various loyalty rewards.

Blockchain allows consumers to gain the transparency they require from the purchases they make. Consumers can make subtle actions that are highly relatable and are backed by enormous project facilities to take out the hazel from the operational units. As per the critical analysis by Sakas et al. (2022), digitization has transformed the concept of digital advertisements by reverting to marketing campaigns that initiate planning and effectiveness in the velocity of reaching the marketing destination. The technology has created a stage of initiation that later on can be applied innovatively to measure the credibility level in larger sections. As stated by Ben Amor, & Ben Yahia (2022), in marketing Blockchain can be used for sharing the basic factors of the customer data and to reduce fraud and other trusted issues that generate skillful knowledge towards releasing the factors connected to supply chain practices. Customer trust is an essential factor that initiates business growth and provides them with a better experience to retain the business forums in larger sections. Business sectors can pursue their goals at an international level and are affirmed by the terminologies of transaction practices.

Assuming the factors of global enterprises, every block has generated the purpose of planning which establishes global ideas and emotional values that are approved of the consensus of networking styles. As per the critical analysis by Menon, & Mady (2022), power generation is valued well and predictions are well presented to matriculate the practitioner values that are objectified by the conditioning approaches. Remarking the secure record has put forth the functional values to procure ideas based on the credibility factor in larger terms. The database is used to generate high demand to secure records and to create a sense of validation in a significant manner. According to the views by Wang et al. (2022), it can be assumed that Blockchain senses the industrial equipment that predicts the future demands of the customers as well as maintains the security check

of the transactional element, and assures the significant programming of the technical validations. In this manner, significant values can be initiated by the supply chain practices which are evaluated as large amounts and are backed by the records which establish a connection between the two parties of the following industrial courses. Therefore, the industries have conceptualized the actions that are taken forward by data encryption acts.

CONCLUSION

In conclusion, it can be said that the use of the BCT in the different factors in the DM process can be helpful and effective for increasing the trust and reliability of consumers in the world. Also, it can be concluded from the above study that the immutable features of the BCT improve the growth and development of a business online by increasing the popularity of the business with online marketing. The advertisement process is one of the most effective and beneficial features of the BCT which increases the attractiveness of a business to the audience and that is the reason for the better growth. The detailed analysis of the use of the BCT in the contrast of the increasing of the trust and reliability of the online customers of the DM sector shows the effectiveness of the proper training and skilled of the people for the improvement of the skill of the DM.

Various technical methods and tools are helpful for the increment of the privacy and security of the various features of the DM that enhance the trust among the people on the DM. Empowering the privacy and the protection of the transaction process and the other features of online marketing increase the selling rate of the products of various businesses and companies. The analysis of the above study indicates the importance of the use of the BCT in the business sector to enhance the reachable of a business all over the world.

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Appendices

Appendix 1: Survey questions

Survey link: <https://forms.gle/DccFh3jfYiRKRYv27>

1. What is your gender?

- Male
- Female
- Prefer not to say

2. What is your age group?

- 25 to 35 years
- 35 to 45 years
- 45 to 55 years
- 55 to 66 years

3. What is your Profession

- Businessman

- Doctor
- Professor
- Students

- 4. Blockchain paves the way for personalized interactions while safeguarding user privacy**
- 5. Blockchain recalibrates the landscape of digital advertising and combatting**
- 6. Blockchain optimize the way we track customer interactions and increase targeting accuracy**
- 7. Technology ensures the transparency and tamper-proof nature of loyalty rewards in Blockchain**
- 8. Blockchain allows consumers to gain the transparency they need in their purchases**
- 9. Blockchain takes the hassle out of warranty management for both the consumer**
- 10. Application of the technology increases trust, security, and transparency**