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DRIVES TO APPLICATION OF CONTACT-LESS ENTREPRENEURIAL ARTIFICIAL INTELLIGENCE IN ENTREPRENEURIAL PRACTICES AMONG SELECTED ONLINE ENTERPRISES

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ABSTRACT

This study found out the elements that drives application of contact-less entrepreneurial artificial intelligence in entrepreneurial practices. Three research questions and three null hypotheses guided the study. The study adopted a descriptive survey design. 644 respondents from some selected online enterprise consisting of entrepreneurs, shoppers and business staff in Nigeria were studied without sampling. A structured questionnaire was used. The questionnaire was validated by three experts, two from Business Education Department and one from Measurement and Evaluation, all from Ebonyi State University, Abakaliki. Cronbach Alpha reliability procedure was used. The instrument yielded a reliability coefficient of 0.92. 644 instrument was administered to the respondents through their business WhatsApp Platforms using google form but 526 instruments were responded to. The responded instruments were retrieved and used for the study. Data collected was analyzed using mean and standard deviation for research questions while the hypotheses were tested at 0.05 level of significance using ANOVA and t-test. The findings of the study found that application of contact-less artificial intelligence drives businesses and business staff in entrepreneurial practices. The result also showed that contact-less AI highly drives shoppers in entrepreneurial practices. The test of the hypotheses proved that there were no significant differences in the mean responses of the respondents regarding application of contact-less artificial intelligence in entrepreneurial practices. Based on the finding of the study, the researcher concluded that contact-less AI is a viable tool in entrepreneurial practices. Therefore, it was recommended that government should provide support to businesses to enable them procure relevant contact-less artificial intelligence for smooth running of their businesses.

Keywords*:* *Contact-less, Entrepreneurial, Artificial Intelligence, Entrepreneurial Practices, Online Enterprise*

Introduction

The environment of businesses changed every day due to advancement in technology. Various efforts have been and are being made to ensure that the entrepreneurial industry grow their businesses, meet the needs and wants of customers and as well help employees to work more efficiently. To reach the above expectation in this technology organization environment, application of contact-less entrepreneurial artificial intelligence in

entrepreneurial practices becomes a welcome development.

Thus, contactless means not involving contact, not requiring contact between person and items (Ridzwan & Zainuddinn 2023). Entrepreneurial means taking financial risks in the hope of profit (Anyigor-Ogah, 2023a; Ibrahim, Okoli, Anyigor-Ogah & Idike, 2024). Artificial Intelligent (AI) means stimulation of human intelligence processed by machines especially computer systems (Yaroshenko, & Iaroshenko,. 2023; Russel, Norvig, Popineau, Miclet, & Cadet, 2021; & Egba, 2012). Entrepreneurial practices mean routinized ways in which entrepreneurs move bodies, handle objectives, treat subjects, describes things and understands their customers (Ibrahim, Okoli, Anyigor-Ogah & Jonah, 2024). Therefore, contact-less entrepreneurial AI refers to ways or processes of providing services and goods to customers that can reduce human connect from ordinary process to fulfillment. To Shana (2024), contact-less entrepreneurial AI encompasses a wide range of technologies that transforms entrepreneurial practices/experiences throughout the customer journey. This includes not only the checkout but the moment they arrive at the store and what happens they are arrived at the store and what happens when they are choosing products. In this regard, contact-less entrepreneurial AI can be described as contact-less solution to obtain an objective. Ridzwan and Zainuddinn (2023) outlined some local key categories of contact-less entrepreneurial AI to include: Online shopping, Mobile payments, pick-up and delivery, scan and Go Technology, virtual try-on and augmented reality. Thus, contact-less entrepreneurial heavily relies on online platforms and e-commerce websites that allows customers to browse and purchase products or services from the comfort of their homes or using mobile devices. In the same vein, mobile payment methods such as digital wallet, QR codes and contact-less cards are integral to contact-less entrepreneurial because the payment options enable customers to make purchases without handling physical cash or touching point-of-sale terminal. Contact-less entrepreneurial often incorporates options for pick-up and contact-less delivery where customers can place orders online and receive their items without entering the store. Furthermore, some businesses offer Scan-and-Go solution, allowing customers to scan items using their Smartphone, and pay for them through the app, eliminating the need for traditional checkout lines. Again, in the fashion and beauty industries, business utilizes augmented reality and virtual try-on technologies to enable customers to virtually test products before making a purchase.

Application of contact-less entrepreneurial AI in entrepreneurial practices gives customers more autonomous shopping. Given customers more autonomous shopping capabilities is obviously empowering and convenient, but it could also address challenges faced be retail employees (Oliveria & Martins, 2021). Traditionally, an employee might have spent much of his or her time trying to juggle requests from multiple customers at once, including tracking down products or information that AI could allow customers to find on their own. Increased use of contact-less shopping can potentially allow

employees to focus on more productive task or on only those shoppers that requires or prefer employee assistance, which might also help to address some of the current challenges of labour shortage in the entrepreneurial sector. Contact-less shopping options could also allow stores to remain open at off-peak times that are more convenient for some shoppers that employees may prefer not to work, such as holidays, weekends and overnight (Amin, Rezaei, & Abolghasemi 2014). Therefore, this study examined the drives to application of contact-less entrepreneurial artificial intelligence in entrepreneurial practices by some selected online enterprise.

Research Questions

The following research questions guided the study.

1. What is the element that drives businesses to application of contact-less AI in entrepreneurial practices?
2. What is the element that drives shoppers to application of contact-less entrepreneurial AI in entrepreneurial practices?
3. What is the element that drives business staff to application of contact-less entrepreneurial AI in entrepreneurial practices?

Hypotheses

HO_1: There is no significant difference in the mean responses of entrepreneurs, shoppers and business staffs on the element that drives businesses to application of contact-less AI in entrepreneurial practices.

HO_2: There is no significant difference in the mean responses of entrepreneurs, shoppers, and business staffs on the element that drives shoppers to application of contact-less AI in entrepreneurial practices based on business type

HO_3: There is no significant difference in the mean responses of the male and female respondents on the element that drives business staff to application of contact-less AI in entrepreneurial practices

Methodology

Descriptive survey design was adopted for the study. The population for the study comprised 644 respondents from some selected online enterprise consisting of entrepreneurs, shoppers and business staff in Nigeria. A breakdown of the population shows that there were 1 entrepreneur, 3 employees and 212 shoppers with a total of 216 from Maigle Creation, 1. entrepreneur, 2 employees and 223, amounting to 225 from Marvel shoes and 1 entrepreneur, 7 employee and 202 shoppers, resulting to 210 from Dazzlin-Amy fashion stores. The study therefore, adopted census population as the entire 644 respondents formed the sample for the study. The data for the study was collected using a structured questionnaire. The questionnaire consisted of 24 items according to research questions on a 4-point rating scale of Highly Drives, Drives, Moderately Drives, and Lowly Drives. The instrument was validated by three experts; two from business education and one from Measurement and Evaluation, all from Ebonyi State University, (EBSU) Abakaliki. The instrument was also subjected to a reliability test, and yielded reliability co-efficient of 0.92. The

instrument was administered to the respondents through their business WhatsApp Platforms using google form but 526 instruments responded which represents 81.7% of the instruments, retrieved and used for the study. Mean and standard deviation were used to answer the research questions, while the hypotheses 1 and 2 were tested using ANOVA and hypothesis 3 was tested using t- test. Decisions on the research questions were based on the grand mean in relations to the real limits of numbers. Therefore, items with mean ratings of 0.50-1.49 were rated Lowly Drives, those with 1.50 – 2.49 were rated Moderately Drives, items with mean ratings of 2.50 – 3.49 were rated Drives and those with 3.50-4.00 were rated Highly Drives. For hypotheses, if the calculated t-value is equal to or greater than the critical t-value, it will be rejected. If otherwise, it will be accepted.

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Results

Research Question 1: What is the element that drives businesses to application of contact-less AI in entrepreneurial practices?

Data collected to answer the above research question are presented in Table 1

Table 1: Respondents Mean Ratings on the Elements that Drives Businesses to Application of Contact-less AI in Entrepreneurial Practices

S/N	Elements that Drive businesses to Application of Contact-less AI	X	SD	Remark
1	Improved efficiency	3.40	0.52	Drives
2	Customer retention	3.31	0.49	Drives
3	Competitive edge	3.16	0.59	Drives
4	Professionalization of services	3.06	0.70	Drives
5	Reduced overhead expenses	3.49	0.53	Drives
6	Adds values to your customer experience	3.31	0.66	Drives
Grand Total		**3.28**	**0.58**	**Drives**

Sources: Field Work 2023

Table 1 shows that the mean scores of all the 6 items on elements that drives businesses to application of contact-less AI range between 3.49 – 3.06 which indicate that those elements drive businesses to application of contact-less AI. The cluster had a grand mean score of 3.28 which confirms the results. The standard deviations for all items are within the same range showing that there is homogeneity amongst responses indicating a greater consensus of opinion.

Research Question 2: What is the element that drives shopper to application of contact-less AI in entrepreneurial practices?

Data collected to answer the above research question are presented in Table 2.

Table 2: Respondents Mean Ratings on the Elements that Drives Shoppers to Application of Contact-less AI in Entrepreneurial Practices

S/N	Elements that Drive Shopper to Application of Contact-less AI	X	SD	Remark
7	No long lines	3.66	0.56	Highly Drives
8	No need to handle cash	3.63	0.67	Highly Drives
9	Saves time	3.80	0.40	Highly Drives
10	Secure shopping	3.77	0.42	Highly Drives
11	Quick payment	3.65	0.48	Highly Drives
12	No unnecessary contact with the public	3.69	0.57	Highly Drives
13	New online channel	3.57	0.58	Highly Drives
14	Offers new product	3.58	0.55	Highly Drives
15	Good previous experience	3.97	0.17	Highly Drives
16	Investigating more in marketing	3.50	0.47	Highly Drives
17	Convenience	3.10	0.64	Highly Drives
Grand Total		**3.62**	**0.50**	**Highly Drives**

Sources: Field Work 2023

Table 2 shows that the mean scores on all the 11 items from 7 - 17 on elements that drives shoppers to application of contact-less AI range between 3.50 – 3.97 which indicates that those elements highly drive shoppers to application of contact-less AI in entrepreneurial practices. The cluster had a grand mean score of 3.62 which confirms the results. The standard deviations for all items are within the same range showing that there is homogeneity amongst responses indicating a greater consensus of opinion.

Research Question 3: What is the element that drives business staffs to application of contact-less AI in entrepreneurial practices?

Data collected to answer the above research question are presented in Table 3.

Table 3: Respondents Mean Ratings on the Elements that Drives Business Staff to Application of Contact-less AI in Entrepreneurial Practices

S/N	Elements that Drive Business Staffs to Application of Contact-less AI	X	SD	Remark
18	Allowing staff to prioritize task more efficiently	3.07	0.78	Drives
19	Allowing staff to locate product quickly	3.20	0.71	Drives
20	Able to identify which shelves need to be restocked	3.15	0.70	Drives
21	Able to up-to-date and aligned with the retailer's broader business needs	3.44	0.65	Drives
22	Able to locate excess products	3.08	0.68	Drives
23	Able to guides staff to prioritize products in highest demand	3.25	0.73	Drives
24	Able to notify specific staff of tasks that need to be completed	3.06	0.73	Drives
Grand Total		**3.17**	**0.71**	**Drives**

Sources: Field Work 2023

Data in Table 3 reveals that items 18-24 had a mean rating of 3.06 – 3.44 with a grand mean of 3.17. This indicates that those elements drive business staff to application of contact-less AI in entrepreneurial practices. The standard deviations for all items are within the same range showing that there is homogeneity amongst responses indicating a greater consensus of opinion.

Test of Hypotheses

HO_1: There is no significant difference in the mean responses of the entrepreneurs, shoppers and business staffs on the element that drives businesses to application of contact-less AI in entrepreneurial practices.

Data collected to test hypothesis 1 are presented in Table 4.

Table 4: Summary of Analysis of Variance (ANOVA) on the Responses of the Respondents on the Element that Drives Businesses to Application of Contact-less AI in Entrepreneurial Practices

Sources	Sum of Squares	DF	Mean Square	F-ratio	Sig	Decision
Between Groups	60.811	2	10.406	1.092	0.526	Accept H_o
Within Groups	409.150	524	0.813			
Total	**469.61**	**526**				

Sources: Field Work 2023

Table 4 above reveals the result of analysis of variance that calculated value of F was 1.092 and the observed probability value is 0.526 which is greater than the fixed probability value of 0.05 (P>0.05). This indicated that the null hypothesis which stated that, there is no significant difference among the mean ratings of entrepreneurs, shoppers and business staffs on the element that drives businesses to application of contact-less AI in entrepreneurial practices.

HO_2: There is no significant difference in the mean responses of the respondents on the element that drives shoppers to application of contact-less AI in entrepreneurial practices based on business type

Data collected to test hypothesis 1 are presented in Table 5.

Table 4: Summary of Analysis of Variance (ANOVA) on the Responses of the Respondents on the Element that Drives Shoppers to Application of Contact-less AI in Entrepreneurial Practices

Sources	Sum of Squares	DF	Mean Square	F-ratio	Sig	Decision
Between Groups	0.108	2	0.052	0.402	0.345	Accept H_o
Within Groups	8.787	524	0.127			
Total	**8.895**	**526**				

Sources: Field Work 2023

The result analysis of variance as presented in Table reveals calculated value of F was 0.402 and the observed probability value is 0.345 which is greater than the fixed

probability value of 0.05 (P>0.05). this indicates that the null hypothesis which stated that, there is no significant difference among the mean ratings of entrepreneurs, shoppers and business staffs regarding the element that drives shoppers to application of contact-less AI in entrepreneurial practices based on business type

HO_3: There is no significant difference in the mean responses of the male and female respondents on the element that drives business staffs to application of contact-less AI in entrepreneurial practices

Data collected to test hypothesis 1 are presented in Table 6.

Table 6: Summary of t-test Analysis of the Mean Responses of the Respondents on the Element that Drives Business Staff to Application of Contact-less AI in Entrepreneurial Practices

Variables	N	X	SD	DF	t-cal	t-crit	Decision	Remark
Male	145	3.16	0.55	524	0.87	1.98	Accept HO	NSD
Female	381	3.15	0.57					

Sources: Field Work 2023
Key: NSD: No Significant Difference

Table 6 above reveals t-calculated value of 0.87 and t-critical of 1.89 at 524 degree of freedom. From the table, since the t-calculated is less than the critical t-value, the researcher upholds the null hypothesis and concludes that there is no significant difference in the opinion of the respondents regarding the element that drives business staffs to application of contact-less AI in entrepreneurial practices.

Discussion of Findings

The finding of research question one indicated that the respondents accepted that improved efficiency, customer retention, competitive edge, reduced overhead expenses, adds values to your experiences among others drives businesses to application of contact-less AI in entrepreneurial practices. This implies that contact-less AI helps in a routinized ways in which entrepreneurs move bodies, handle objectives, treat subjects, describes things and understands their customers in business. Contact-less entrepreneurial AI helps in providing services and goods to customers that can reduce human connect from ordinary process to fulfillment. The finding of the study corroborates the finding of Amin, Rezaei, Abolghasemi (2014) who stated that Contact-less shopping options allow stores to remain open at off-peak times that are more convenient for some shoppers that employees may prefer not to work, such as holidays, weekends and overnight. The test of hypothesis (**HO_1**) in Table 4 proved that there are no significant differences in the mean responses of the entrepreneurs, shoppers and business staffs regarding elements that drives businesses to application of contact-less AI in entrepreneurial practices. The finding is in agreement with Anyigor-Ogah (2024) who

found that there was no significant difference in the opinion of the respondents on application of technology in business.

The finding of research question 2 showed that shoppers were highly drives by those elements which includes no long lines, no need to handle cash, save time, secure shopping, quick payment, no unnecessary contact with public among others to application of contact-less AI in entrepreneurial practices. This could be to the fact that, contact-less entrepreneurial allows customers to browse and purchase products or services from the comfort of their homes or using mobile devices. In the same vein, mobile payment methods such as digital wallet, QR codes and contact-less cards are integral to contact-less entrepreneurial because the payment options enable customers to make purchases without handling physical cash or touching point-of-sale terminal. Contact-less entrepreneurial often incorporates options for pick-up and contact-less delivery where customers can place orders online and receive their items without entering the store. Application of contact-less entrepreneurial AI in entrepreneurial practices makes shopping more empowering and convenient by shoppers. The finding is in agreement with Ridzwan and Zainuddinn (2023) who stated that application of contact-less entrepreneurial AI in entrepreneurial practices gives customers more autonomous shopping. The test of hypothesis (**HO_2**) in Table 5 proved that there are no significant differences in the mean responses of the respondents regarding element that drives shoppers to application of contact-less AI in entrepreneurial practices based on business type. The finding is in agreement with Anyigor-Ogah and Okoli, 2024; and Egba, Oko, Egba, Achimugu and Achimugu (2018) who found that there was no significant difference in the opinion of the respondents on the usage of technology in business.

The result in Table 3 shows that business staff were drives by allowing staff to prioritize task more efficiently, allowing staff to locate product quickly, able to identify which shelves need to be restocked, able to locate excess product among others to application of contact-less AI in entrepreneurial practices. Traditionally, an employee might have spent much of his or her time trying to juggle requests from multiple customers at once, including tracking down products or information that AI could allow customers to find on their own. Therefore, application of contact-less shopping drives business staff. This finding is in line with Oliveria and Martins (2021), who stated that increased use of contact-less shopping can potentially allow employees to focus on more productive task or on only those shoppers that requires or prefer employee assistance. The test of hypothesis (**HO3**) in Table 6 proved that there are no significant differences in the mean responses of the respondents regarding element that drives business staff to application of contact-less AI in entrepreneurial practices. The findings are in agreement with Anyigor-Ogah (2023) who found that there is no significant difference in the opinion of male and female respondents on the integration of technology in business.

Conclusions

Based on the findings of the study, it was concluded that application of contact-less AI in entrepreneurial practices drives

businesses and business staff. Also, it was concluded that application of contact-less AI in entrepreneurial practices highly drives shoppers. This implies that contact-less AI is a viable tool in entrepreneurial practices. Again, it was concluded that business type, gender as well as business owners, shoppers and business staff does not significantly affect respondents' mean ratings on the application of contact-less artificial intelligence in entrepreneurial practices.

Recommendations

Based on the findings of the study, it was recommended that:

1. Government should provide support to businesses to enable them to procure relevant contact-less artificial intelligence for the smooth running of their businesses.
2. Other businesses who have not adopted AI usage should embrace contact-less artificial intelligence application into their business to stimulate shoppers' patronage.
3. Businesses should make available important contact-less AI to their business staff, to help them carryout their duties effectively and efficiently.

REFERENCES

Amin, M., Rezaei, S. Abolghasemi, M. (2014). User satisfaction with mobile websites: the impact of perceived usefulness (PU), perceived ease of use (PEOU) and trust. *Nankai Business Reve. International*, 5, 258-274

Anyigor-Ogah, A. C. (2023a). Facilitating strategies for gaining entrepreneurship skills through business education programme of public universities in Ebonyi sate of Nigeria for self-employment. *International Journal of Innovative Education Research* 11(2), 65

Anyigor-Ogah, A.C. and Okoli, B. E. (2024). Track changes nexus of creativity and relevance for digital research work collaboration and reviewing in business education. *Nigerian Journal of Business Education. 11(1),* 133- 138.

Anyigor-Ogah, A. C. (2023b). Perception of business educators on the relevance of integrating globalized employability skills in the business education curriculum in tertiary institution in Nigeria. *Nigerian Journal of Business Education*, 10(1), 46 – 54.

Anyigor-Ogah, A.C. (2024b). Extent of usage of document inspection and protection technology by business educators in ensuring the security of digital documents in business education. *Nigerian Journal of Business Education. 11(2), 24-30.*

Ben, G. (2022). Are contactless payment the new normal for the retail industry? www.retail.focus.co.uk

Collier International (2015). 2015 global retail e-commence index. http://www.collier/-/medes/7A71276C5A04466ABBIA866CCCF1702F.ashxe

Egba, E. I. (2012). The role of artificial intelligence in technology and vocational education. *International Journal of Innovations in Educational Method*, 4(2), 59 - 63.

Egba, A. C., Oko, M. C., Egba, E. I., Achimugu, P. & Achimugu, O. (2018). Relevance of information and communication technology (ICT) in effective teaching and learning of business subjects in Ebonyi State, Nigeria. Advanced Science Letters, 24(5), 3622 – 3625(4). DOI: http//doi.org/10,1166/as/.11448

Heinemann, G., & Schwarzl, C. (2010). New online retailing. Innovation and Transformation. Cables Verlag/spring Fachmedien Wiesbadan GMbH, Wiesbaden

Ibrahim, J., Okoli. B. E., Anyigor-Ogah, A. C. & Idike, I. M. (2024). Database management and information security competencies required by administrative office managers in utilization of electronic records in tertiary institutions for sustainable development. *International Journal of Business and Technology Management*, 6(1), 64 – 73.

Ibrahim, J., Okoli. B. E., Anyigor-Ogah, A. C. & Jonah, D. (2024). Competencies required by administrative office managers in tertiary institutions in Taraba State, Nigeria, *British Journal of Education*, 12(2), 52 – 62.

Mark, P. (2021). The feature of contactless commerce. Hbr.org

Nwankwo, A. A. (2022). Green business strategies and performance of breweries in South-East Nigeria. *International Journal of Innovative Social Sciences & Humanities Research*, *10*(1), 127-138.

Nwankwo, A. A. (2022). Impact of Emerging Digital Technology on Organizational Performance: A Study of Fidelity Bank in Anambra State. *International Journal of Business Systems and Economics*, *13*(5), 156-168.

Ridzwan, S. I. & Zainuddi, A. (2023). Touchless retail technology: The effect of customer loyalty on the relationship between TOE and retail technology. International Journal of Business and Technology Management, 5(4), 388 - 399

Rusell, S. J., Norvig, P., Popineau, F,. Miclet, L., & Cadet, C. (2021). *Intelligence Artificielle: Une Approche Moderne* (4e ed) Pearson France (In french).

Shana, S. (2024). How contactless shopping can create a more autonomous retail experience. www.verizon.com>business>article

Yaroshenko, T. S & Iaroshenko, O. I. (2023) Artificial intelligence (AI) for research lifecycle: Challenges and opportunities. *University Library at a New Stage of Social Communication Development. Conference Proceedings*, 8.

Yi, J., Po-Lin, L., Ching-Chiao, Y., & Xinchen, W. (2023). exploring the factors that drives consumers to use contactless delivery services in the context of the continued COVID-19 pandemic. Journal of Retailing and Consumer Services, 72,103276