Innovations

Technoprenuership and Organizational Productivity of Wine Firms in Anambra State

[1]Dr. Ohanyere C.P; [2]Okoye, Vincent Chekwubechukwu;
[3]Nnebe, Ekwutosi Gloria
[1]Department of Business Administration
Chukwuemeka Odumegwu Ojukwu University Igbariam, Anambra State, Nigeria
[2, 3] Department of Entrepreneurship Studies
Chukwuemeka Odumegwu Ojukwu University, Igbariam, Anambra State Nigeria

Abstract: *Technopreneurship is crucial because it boosts financially viable good organization, introduces improvement to the marketplace, and initiates new jobs while preserving existing ones. The organizational efficiency and technopreneurship of wineries in Anambra State were examined in the study. Technopreneurship has its own set of difficulties, such as the expense of technology, problems with adoption and training, and possible cybersecurity threats. Analyzing how innovation, intellectual property rights, and technology-intensive skills affect the managerial good organization of wine industries in Anambra State was the study's target. In keeping with the study's aforementioned goals, three research hypotheses are developed. The descriptive survey design approach was applied. Seven hundred and twenty-seven (1727) respondents made up the population for this study. According to the Borg & Gall algorithm, the sample size is 332 and includes every employee of the chosen wineries in Anambra state. While 332 surveys were distributed by the researcher, only 317 copies were recovered. Data from the respondents was gathered using a well thought-out survey. To evaluate the theories, the t-test and correlation analysis data method were employed. Finding shows that; Intellectual property rights have considerable affirmative effect on managerial productivity of wine firms. Innovation has considerable affirmative effect on managerial productivity of wine firms. It was recommends that Intellectual property ought to take serious by the firms in order to protect their product from pirates. Firm should invest much on innovation tools in order to come up with unique products.*

Keywords*: Technoprenuership, organizational productivity, intellectual property rights, innovation technology intensive skill and wine firms*

1.1 Introduction

Budding economies encompass the potential of technopreneurship—a combination of improvement, technology, and free enterprise—to increase monetary prosperity in the current business climate (Oyedele et al., 2020). The digital revolution has produced the perfect environment for businesses since the introduction of the internet. Our daily lives have been significantly impacted by the tremendous speed at which technology has advanced over the past fifty years (Agbajeogu & Okoli, 2023). Enterprise processes are built and supported by modern technology on a competitive worldwide scale. With more and more normal activities and measures shifting to the electronic area in nearly everyone regions of the universe, the shift in the substantial to the practical world is a noticeable drift (Abass, 2018).

Countries worldwide have adopted information and communication technology (ICT) to enhance public and commercial sector operations and increase citizen access to these services (Aderemi et al., 2012). A nation's economic development now faces both new chances and challenges due to modern technologies. It be supposed to be mentioned that data technology has become more significant in the business sector due to its ability to enhance operations (Bubou & Okrigwe, 2011). Technopreneurship is a combination of technological innovation and entrepreneurship with a focus on the vibrant, significant, and pervasive effects of new innovation in the 3rd and 4th industrial revolutions (Bubou & Okrigwe, 2011). Technopreneurship is crucial because it boosts profitable competence, introduces technology to the market, and initiates new jobs while preserving existing ones. In other cities around the world, technopreneurship has also been encouraged. Since then, nations are establishing tech hubs that give confidence to business boss to engage in information innovation-related actions or, in certain situations, further types of high-tech activities. International IT corporations have also started to support new tech companies and tech startups. These tech centers are dedicated exclusively to the growth of technopreneurs (Harlanu & Nugroho, 2015; Machmud et al., 2019; Koe et al., 2018).

The issue deters several prospective business owners due to the expenses associated with starting this. Once more, the entrepreneur has to deal with a lot of taxes and revenue to pay. These typically deter entrepreneurs from starting their own businesses because they offer little to no tax relief, which would motivate them to make constructive contributions to the economy. Another issue is power outages, which are a serious problem because entrepreneurs cannot function without a sufficient power source. The nation's power supply has been in a coma and is still there.. The problem of constant change in technology is a problem to enterprenuers as new technologies are being pumped into the market every time.

Lack of qualified technicians/repairers is a major drawback for techoprenuers, because in the event of faulty machines, there is a halt in businesses. Crises and

insecurity are the major problems that are begging for attention, this can cause business owners to loose everything the work for in minutes, and this is not a welcome development for any economy.

1.2 Objectives of the Study

The study was on the technoprenuership and organizational productivity of wine firms in Anambra State. The following are the precise purpose:

i. Analyze the effect of intellectual property rights on organizational productivity of wine firms in Anambra State.

ii. Determine the effect of innovation on organizational productivity of wine firms in Anambra State.

iii. Determine the effect of technology intensive skill on organizational productivity of wine firms in Anambra State**.**

Review of Related Literature

2.0 Conceptual Review

2.1 Techno-entrepreneurship

Techno-entrepreneurship refers to the process of applying technological expertise, creativity, and business acumen to develop innovative products, services, or business models. Techno-entrepreneurship involves identifying market needs, generating new ideas, and developing and commercializing new technologies to address those needs (Aderemi et al. 2008). It often involves multidisciplinary teams of entrepreneurs, engineers, designers, and business professionals working together to create successful technology ventures. Techno-entrepreneurship is a driving force behind many of the most disruptive and innovative companies, such as Amazon, Apple, and Google. Technological entrepreneurship is similar to Techno-entrepreneurship in that it involves using technology as a means to create and capture value. However, technological entrepreneurship has a broader scope that encompasses more than just technological innovation. Technological entrepreneurship includes a range of activities, such as identifying new opportunities for value creation, developing and commercializing innovative products and services, and leveraging technology to disrupt existing industries and create new markets(Tung, 2011).. Technological entrepreneurship is an important driver of economic growth and innovation, as it creates new jobs, increases productivity, and enables organizations to respond to changing market conditions.

2.2 Theoretical Framework

Resource-Based Theory

Resource-Based Theory was initially proposed by strategic management scholars Jay B. Barney and W. Chan Kim, who developed the theory in the late 1980s and early 1990s.

Barney's work focused on the relationship between firm resources and sustainable competitive advantage, while Kim expanded the theory to include the concept of dynamic capabilities, which refers to the ability of firms to create, integrate, and reconfigure their resources to adapt to changing market conditions.

Resource-Based Theory (RBT) is a strategic management theory that seeks to explain why firms achieve different levels of performance by focusing on their internal resources and capabilities.

RBT posits that a firm's competitive advantage is derived from its ability to leverage its unique and valuable resources, such as technology, knowledge, and human capital, to create value for customers and to outperform its competitors. This theory argues that firms with superior resources and capabilities are able to develop distinctive competencies, which can be leveraged to achieve sustained competitive advantage.

2.3 Empirical Studies

(Oyedele & Oyero 2022) carried out the studied on the techno-entrepreneurship and sustainable performance business of small and medium-sized enterprises (SMEs). Simple random techniques were employed in the study, while one hundred and twenty-six (126) were purposively seleceted from agro-business. Multiple regression analysis method was used. The study showed a significant positive effect between technopreneurship and performance business of enterprises firms in Nigeria

Obiukwuu and Onuoha (2022) analyse the Effect of technopreneurship on the tech companies. The purpose of the study was to investigate the effect ICT self-efficacy, adaptability, and innovation on the growth of tech companies in Nigeria. Adopted in this study was survey research design. Three hundred and seventy-six (376) was the population of the study, while one hundred and thirty-two sample size were derived by taro yamen formular. Structure questionnaire instrument was adopted to get information from the respondents. 110 questionnaires was retrieved, correlation coefficient was employed as the method of analysis. The finding states that there is a major link between technopreneurship and the growth of tech organizations in Nigeria.

Osademe, Ononokpono and Saka, (2023) analyse the Technopreneurship and trade Performance of Ride-hailing firms in Lagos State. Employed in the study was vivid survey research. The populace of the study was 5,662 while the sample size stood at 374. A structured opinion poll was constructed to elicit information from the respondents. Statistical analysis was adopted as the method of data analysis. All the variables observed positive major outcome on business performance of the riding firms in Lagos state.

Methodology

The pollster will utilize a survey design as the research design for this study in order to get clarifications and to make the schedules of the respondents more convenient. The state of Anambra is located in southeast Nigeria. As part of the survey method research, data will be gathered by administering a questionnaire and doing observations. For this research, a self-developed structured questionnaire was used as the data gathering tool.

Population of the Study

Wine Firm	**Location**	**Staff Capacity**
Aliban de great industry	Onitsha	90
Brandy Almondis VSOP	Onitsha/Atani road	110
Nnas' brightly morning star enterprise	Onitsha/Main market	80
Ekulo groups	Onitsha/Atani road	320
Jacobs wines	Onitsha	134
Eastern distilleries & food industries	Onitsha/Atani road	155
Krisoral group of companies	Onitsha	110
De vineyard global wine place	Ikenegbu	90
Tiger food limited	Onitsha	154
Zobaco hot wine nig ltd	Obodoukwu Rd	75
Vinas wine factory	Onitsha	77
Sparkle wine ltd	Onitsha	133
Baresi wine enterprises	Onitsha	199
TOTAL	1727	

SOURCES: Human Resources Department of the wine firm

Sample size determination

Borg & Gall (1973) formular, was use to reduce the population to a manageable size

$n = (1.960)^2 (0.05) [1727]$

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$n = (3.8461) (86.35)$

$332.11073 \Longrightarrow 332$

$n = 332$

Method of Data Analysis/ Decision Rule

The t-test was used to evaluate hypotheses, and statistics like frequency counts and percentages was utilized to analyze personal traits. At the 0.05 threshold of significance, the hypotheses were examined. Do not reject Ho if the computed value of X2 is less than the value of X2 derived from the table at the 5% level of significance and five degrees of freedom.

Presentation and Analysis of Data

4.1 Distributions of Questionnaire

Table 4.1.1 Information on Distribution of Questionnaire

s/n	Options	No of Respondents	Percentage %
1	Questionnaire Distributed	332	100%
2	Questionnaire Returned	325	97%
3	Questionnaire Completed	317	95%
4	Questionnaire Not Duly Completed	5	1%
5	Questionnaire Missing	3	0.9%

Source: Field Survey, 2024

332 questionnaire was distributed to the sample size; 325 (325) copies, or 97% of the total, were returned; 317 (617), or 95%, were completed; five (5) copies, or 1%, were not properly completed by the respondents; and three (3) copies, or just 0.9% of the total, were missing, according to Table 4.1. Therefore, the three hundred and seventeen (317) copies, which accounted for 95% of the sample population, served as the basis for the analyses in this study.

4.2 Hypotheses Testing

HO_1: Intellectual property rights have no major helpful outcome on organizational productivity of wine firms.

Correlations						
					OGP	IPR
Spearman's rho	OGP	Correlation Coefficient			1.000	.959**
		Sig. (2-tailed)			.	.000
		N			317	317
		Bootstrap[b]	Bias		.000	-.002
			Std. Error		.000	.022
			BCa 95% Confidence Interval	Lower	.	.908
				Upper	.	1.000
	IPR	Correlation Coefficient			.959**	1.000
		Sig. (2-tailed)			.000	.
		N			317	317
		Bootstrap[b]	Bias		-.002	.000
			Std. Error		.022	.000
			BCa 95% Confidence Interval	Lower	.708	.
				Upper	.810	.
**. Correlation is significant at the 0.01 level (2-tailed).						
b. Unless otherwise noted, bootstrap results are based on 317 bootstrap samples						

Paired Samples Test									
		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	OGP - IPR	.83596	.50149	.02817	.69138	.78055	29.680	316	.000

The link between the dependent variable and the independent variable, intellectual property right (IPR), is shown in Table 1a. performance of the organization. A two-

tailed test of sample distribution reveals the critical area in a distribution, and the 95% confidence level interval at a 0.05 level of significance falls between.810 and.780 in the upper case and 708 and 780 in the lower case. A high correlation between the dependent and independent variables is shown by the 95% spearman correlation coefficient value. This demonstrates the model's excellent goodness of fit even more.

Model 1= ORG= $\beta_o + \beta_1$IPR + μ

Table 1 indicates the difference in mean value (.83596) and standard deviation (.50149) for the extent of relationship that existed between the variables included in the group. The single group variables in model one of the hypotheses are represented by IPR & ORP (Intellectual Property Right & Organizational Performance).

However, when Intellectual Property Rights practices are followed, the paired sample t-test revealed that the level of Organizational Performance increased dramatically. Intellectual property rights t-test values are considered statistically high if they are above 2 (t-value > 2), but they are considered to have no significant association in the model if they are less than 2 (t-value < 2). In summary, the t-value for this result was 29.680, which is a notably high figure. As a result, the study found a strong correlation between Anambra State wine companies' organizational performance and their intellectual property rights. This study shows that intellectual property rights significantly increase the organizational efficiency of wine companies.

HO_2: Innovation has no significant positive effect on organizational productivity of wine firms in Anambra State

Correlations						
					OGP	INV
Spearman's rho	OGP	Correlation Coefficient			1.000	.802**
		Sig. (2-tailed)			.	.000
		N			317	317
		Bootstrap[b]	Bias		.000	-.001
			Std. Error		.000	.039
			BCa 95% Confidence Interval	Lower	.	.713
				Upper	.	.871
	INV	Correlation Coefficient			.802**	1.000
		Sig. (2-tailed)			.000	.

		N			317	317
		Bootstrap[b]	Bias		-.001	.000
			Std. Error		.039	.000
			BCa 95% Confidence Interval	Lower	.713	.
				Upper	.871	.
**. Correlation is significant at the 0.01 level (2-tailed).						
b. Unless otherwise noted, bootstrap results are based on 317 bootstrap samples						

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	OGP - INV	.00631	.99998	.05616	.11681	.10419	3.212	316	.000

The correlation between the independent variable of innovation (INV) and the dependent variable of organizational productivity (OGP) is shown in Table 2. The crucial area in a distribution is shown by a two-tailed test of sample distribution with a 95% confidence level interval between 0.871 and 0.104 at the higher case and 0.713 and 0.116 at the bottom case, at a 0.05 level of significance. With a value of 0.80%, the spearman correlation coefficient indicates a strong relationship between the independent and dependent variables. This further demonstrates the model's great goodness of fit.

Model 2= OGP = $\beta_o + \beta_1$INV + μ

Table 2 shows the variation in the standard deviation (.99998) and mean value (.00631) for the degree of association between the variables in the group. OGP & INV (innovation and organizational productivity) are the single group variables in model two of the hypotheses.

Nonetheless, the adoption of the perceived level of innovation led to a considerable boost in organizational productivity, as demonstrated by the paired sample t-test. If

the innovation t-test value is greater than or equal to 2 (t-value > 2.00), it is considered statistically high; if it is less than 2.00 (t-value < 2.00), it is considered that there is no significant link between the innovation in the paired sample. To conclude this outcome, a significant high t-value of 3.212 was achieved. This study shows that innovation significantly increases the organizational productivity of wine companies in Anambra State.

HO_3: Technology intensive skill has no significant positive effect on organizational productivity of wine firms in Anambra State

Correlations						
					OGP	TIS
Spearman's rho	OGP	Correlation Coefficient			1.000	.738**
		Sig. (2-tailed)			.	.000
		N			317	317
		Bootstrap[b]	Bias		.000	-.001
			Std. Error		.000	.034
			BCa 95% Confidence Interval	Lower	.	.671
				Upper	.	.800
	TIS	Correlation Coefficient			.738**	1.000
		Sig. (2-tailed)			.000	.
		N			317	317
		Bootstrap[b]	Bias		-.001	.000
			Std. Error		.034	.000
			BCa 95% Confidence Interval	Lower	.671	.
				Upper	.800	.
**. Correlation is significant at the 0.01 level (2-tailed).						
b. Unless otherwise noted, bootstrap results are based on 317 bootstrap samples						

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	OGP - TIS	.17981	1.14011	.06403	.05382	.30580	2.808	316	.005

Technology intensive skill (TIS), an independent variable, and organizational productivity, a dependent variable, are shown to be related in Table 3. The crucial region in a distribution is shown by a two-tailed test of sample distribution with a 95% confidence level interval between 0.800 and 0.305 at the higher case and 0.671 and 0.053 at the bottom case, at a 0.05 level of significance. With a value of 73%, the spearman correlation coefficient indicates a strong relationship between the independent and dependent variables. This further demonstrates the model's great goodness of fit.

Model 3= $\mathbf{ORP = \beta_o + \beta_1 TIS + \mu}$

Table 3 Table 3 shows how the dependent variable, organizational productivity, and the independent variable, technology intensive skill (TIS), are related. A 95% confidence level interval of 0.800, at a 0.05 level of significance, shows the difference between the mean value (.17981) and standard deviation (1.14011) for the degree of association between the variables in the ensemble. TIS & OGP (Technology Intensive Skill and Organizational Productivity) are the single group variables in model two of the hypotheses.

However, after the effective technology-intensive skill was implemented, the organizational productivity level grew dramatically, according to the paired sample t-test. Technology-intensive skill t-test values are considered statistically high if they are greater than or equal to 2 (t-value > 2.00); if they are less than 2.00 (t-value < 2.00), it is considered that there is no significant link between the perceived outcomes in the paired sample.. In conclusion to this result, the t-value was obtained at 2.808 which is significant high. The study shows that technology-intensive talent has a significant beneficial impact on the organizational productivity of wine enterprises in Anambra State.

Conclusion and Recommendation

In conclusion, technopreneurship is an essential factor in promoting organizational productivity in the wine industry. By embracing the latest technological innovations, wine firms can improve efficiency, streamline processes, and enhance customer satisfaction. Technopreneurship can help wine firms overcome traditional productivity challenges, such as manual processes, disconnected systems, and limited market insights, by enabling better decision-making, improving collaboration, and automating repetitive tasks. The study recommends that Intellectual property rights should be take serious by the firms in order to protect their product from pirates. Firm should invest much on innovation tools in order to come up with a unique products. Technology intensive skill can enable wine firms to access data and applications from anywhere, collaborate more effectively, and streamline business processes.

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