

BUSINESS SUSTAINABILITY: LEVERAGING ON INFORMATION ETHICS

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ABSTRACT

This is a relationship study that examined the influence of Information Ethics on Business Sustainability of the Cement manufacturing firms in Rivers State. As a cross sectional study that adopted the macro level analysis, a census of functional line officers of the four Cement manufacturing firms in Rivers State was done. Thus, 54 respondents were covered and 40 of the targeted functional line officers which included managers and line supervisors provided the responses necessary for the study. The structured close ended questionnaire was used to gather the study data on the test of the dimensions of Information Ethics (Information quality, privacy, and against the measures of Business sustainability which included, patent protection and quality preservation). The data gathered were statistically analysed using the Pearson Product Moment Correlation statistical tool and presented with the aid of SPSS version 20. Findings of the study revealed strong positive significant relationships between the tested dimensions of Information Ethics against the measures of Business sustainability (patent protection and quality preservation) in the Cement manufacturing firms in Rivers State. Findings also revealed positive significant moderating effect of Enterprise Vision on Information Ethics and Business Sustainability of the Cement manufacturing firms. Based on the findings, the study concluded that there is positive significant relationship in the study dimensions and the measures thus, the study recommended that the identified indicators of Information Ethics should be encouraged in the Cement manufacturing firms in Rivers State as they have been tested to enhance Business Sustainability.

Keywords: Information Ethics, Business Sustainability, Enterprise Vision, Patent Protection, Privacy,

INTRODUCTION

Competition in organisations today is dependent upon the information one organization has over the other. Business sustainability is critically the essence of investment. A sustained organization is a successful investment. Lots of researches have shown the collapse of businesses with short period of the existence. The cement manufacturing industry is a highly competitive sector of global economy. Most cement manufacturing firms in Nigeria have gone out of business due to their inability to grapple with new technology and competitive information that gives edge to their growth. To be in business especially the cement manufacturing, information about product contents and new cutting edge technology must be quality enough to lead the production process into market trend perspectives. Technology about building and constructions are evolving daily in tandem with global change and climate adaptation, but our indigenous attention are not yet awakened to this demand. There has been the issue of authentication of warehoused information as to the source, accessibility and utilization. Authentication issue is a serious concern about the ethical status of business information and it bothers more on the user's identity and source. Poor

source gives value to failure and ignorance in product offering. Information Privacy provide a control for access and transfers. Competitive information are guided and made private to owner organisations. This gives strength to existence pride and the sense of identity is built but this is lacking in the most of the manufacturing outlets to such extent that all seems to be doing same thing resulting in the poor state of construction in the country. This study therefore takes a departure in examining the area of information ethics as they affect the cement manufacturing business in Nigeria. The concept of information privacy existed long before information and communication technologies changed its occurrences, impacts, and management. Mason(1986) suggested that the advent of the increased use of information technologies, or the Information Age, would lead to four major concerns about the use of information: privacy, accuracy, property, and accessibility (PAPA). This prediction proved to be accurate for each area, and particularly for privacy, which has been the subject of increasing concern over the years. A few Internet Project survey found that 85 percent of adults believed it was "very important" to control access to their personal information (Madden et al. 2007). Information privacy is also an important concern for corporations. n information privacy attitudes often explores perceptions of and reactions to information privacy policies, practices, and tools. Examples of attitudes include sensitivity to sharing or loss of information, or willingness to share personal information (Culnan and Armstrong 1999; Miyazaki and Krishnamurthy 2002; Norberg and Home 2007), and reactions to privacy invasive technologies such as instant messaging (Cao and Everard 2008) and RFID (radio frequency identification tags) (Razzouk et al. 2008; Thiesse 2007).

Threat to sustainability such as Short-termism can lead to suboptimal outcomes for both the firm and society for several reasons. First, investments driven by short-term payoffs tend to be incremental, rather than transformational. Firms tend to focus on operational efficiencies or adjacent moves into new product markets, and are unlikely to make the necessary strategic investments in disruptive technologies that will help them leapfrog their competitors. In contrast, firms that can manage the long term and the short term are more likely to invest strategically in research and development for new product and process innovations, train employees for higher productivity and lower turnover, and build enduring relationships with the community to ensure that resources are developed responsibly (Slawinski and Bansal, 2012). Much like runners who pace themselves through a marathon, these firms understand how to manage their limited resources. Second, firms that rely too heavily on short-term investments experience more volatile earnings. As managers become increasingly myopic, the returns on their investments either become more marginal or managers take significant risks to potentially secure windfall gains. In either case, these firms often fail to build long-term value, as a win is often followed by a loss. This perpetual cycle of wins and losses encourages, according to behavioral economists, even greater risktaking to compensate for earlier losses (Kahneman and Tversky, 1979), contributing to what Perlow et al. (2002) refer to as a speed trap and even shorter term decisions. Managers start 74 Strategic Organization 12(1) managing their reported earnings to meet or beat short-term earnings benchmarks, perhaps by delaying important investments or making contentious investments or operational decisions. It is for these behavioral reasons that Polman stopped providing earnings guidance to analysts shortly after he took the helm of Unilever. Executives can feel hamstrung, unable to make the investments needed to preserve the longterm viability of their companies. Indeed, there is a growing trend for public companies to abandon the practice of providing earnings guidance altogether (Hsieh et al., 2006). Short-termism is the arena in which strategy comes up against sustainability. Current theories of strategic management are contributing to short-term decision making. Not only is short-termism potentially hazardous to

organizations, it can contribute to systems failure, which ultimately leads to firm failure. Realizing this connection, we argue that strategy must integrate sustainability in its theorizing.

LITERATURE REVIEW

In recent years, Information Ethics has come to mean different things to different researchers working in a variety of disciplines, including computer ethics, business ethics, medical ethics, computer science, the philosophy of information, social epistemology and library and information science. Perhaps this Babel was always going to be inevitable, given the novelty of the field and the multifarious nature of the concept of information itself. It is certainly unfortunate, for it has generated some confusion about the specific nature and scope of Information Ethics. The problem, however, is not irremediable, for a unified approach can help to explain and relate the main senses in which it has been discussed in the literature. The approach is best introduced schematically and by focusing our attention on a moral agent. Suppose one is interested in pursuing whatever one considers a best course of action, given the predicament. It will be assumed that one's evaluations and actions have some moral value, but no specific value needs to be introduced. Intuitively, one can use some information (information as a resource) to generate some other information (information as a product) and in so doing affect her informational environment (information as target). (Kim et al., 2016).

Ethics consider first the crucial role played by information as a resource for one's moral evaluations and actions. Moral evaluations and actions have an epistemic component, since A may be expected to proceed "to the best of her information", that is, one may be expected to avail herself of whatever information she can muster, in order to reach (better) conclusions about what can and ought to be done in some given circumstances. Socrates already argued that a moral agent is naturally interested in gaining as much valuable information as the circumstances require, and that a well-informed agent is more likely to do the right thing. (Wang, 2015). The ensuing "ethical intellectualism" analyses evil and morally wrong behaviour as the outcome of deficient information. Conversely, one's moral responsibility tends to be directly proportional to One's degree of information: any decrease in the latter usually corresponds to a decrease in the former. This is the sense in which information occurs in the guise of judicial evidence. It is also the sense in which one speaks of one's informed decision, informed consent, or well-informed participation. Sustainable business practices is quickly gaining popularity and becoming a mega trend, particularly in the western developed countries. The reason behind it is simple. A wide range of social and environmental problems afflicts the global community today – social inequality, unequal distribution of wealth, failing economics, war and conflict, gender inequality, lack of education, rampant poverty, changing climate, habitat loss, species loss, ecological loss etc. Much of these problems can be addressed if the private sector adopts more sustainable business practices. These problems are especially acute in developing and less developed countries. Of these stakeholders, the private sector is viewed to be one of the most influential and dominant force having the most significant impact in achieving these goals (Lucci, 2012). Indeed much of the current problems have its roots in the practices and policies of the private sector so much so that it has called into question the entire notion of capitalism and free markets (Daood & Menghwar, 2017). It is beyond the purview of this paper to discuss the merits and demerits of the prevailing form of capitalism. What is certain without a shred of doubt is the enormous impact of the private sector on these issues. Climate science has clearly linked industrial activities with the change in global climate which has wide repercussions in so many areas –

global warming, fresh water scarcity, ecological damage, loss of species etc. Hence, business cannot continue as usual. There is a profound need to re-examine, re-assess, and re-think, business values, priorities and practices. It can commonly be defined as development that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development (WCED), 1987), sustainability aims to secure intergenerational equity. Expressed in this way, the principles of sustainability are indisputable. Most people want to live as well as their parents and they want their children to enjoy similar opportunities. The same logic applies in business—most managers want their business to be at least as profitable as in the past and, ideally, for profits to grow. Based on this logic, business sustainability can be defined as the ability of firms to respond to their short-term financial needs without compromising their (or others’) ability to meet their future needs. Thus, time is central to the notion of sustainability. The WCED conceptualized sustainability from a systems perspective. In conditions of resource constraints, industry must develop, use, and dispose of natural resources to protect the regenerative health of the planet and equitably distribute the wealth generated in order to meet the needs of future generations. For economic, societal, and ecological systems to remain in balance at the macro-level, resources must be distributed at micro-levels across time.

Information Quality

In the words of Rieh (2002), the quality of information is the degree to which individuals consider the message as current, preciseness, good, and useful. Low quality information increases information-processing costs, time, and effort due to reading useless messages (Gu et al., 2007). However, high quality information benefits both customers who want valuable information on a particular topic and service and providers who present the information (Butler et al., 2002; Zheng et al., 2013). Service providers can increase their reputation and positive image by offering high quality information (Butler et al., 2002). Numerous researches have defined information quality as a multi-dimensional concept (Chen et al., 2017; Xu et al., 2013). However, information quality categories (e.g., accuracy, timeliness, adequacy, reliability, etc.) have been presented differently by various researchers, there is no standardized quality attributes yet. This paper employed Huang et al. (1999)’s approach using four dimensions of information quality: (1) intrinsic, (2) contextual, (3) representational, and (4) accessibility. Huang’s four dimensional concept contains relatively most aspects of information quality and classifies them systematically. Intrinsic information quality is the message’s internal characteristics including accuracy, objectivity, and credibility (Huang et al., 1999; Michnik and Lo, 2009). Contextual information quality is concerned with the quality of information in terms of contextual factors such as time or the context of the task (Herrera-Viedma et al., 2006). Representational information quality is defined as whether the information is interpretable, understandable, and consistent (Michnik and Lo, 2009). Accessibility information quality means the ease with which the sought messages was obtained (Huang et al., 1999).

2.1.2. Source credibility

According to Wu and Wang (2011), source credibility indicates how much the message’s recipient believes in the addresser. More specifically, trustworthiness and expertness have been proposed by many researchers as the main components of source credibility (Erdem and Swait, 2004; Wu and Wang, 2011). Trustworthiness is described as a person’s perception of confidence in a message sender’s reliability and integrity (Ohanian, 1990). Expertness refers to a person’s belief that the message sender possesses professional knowledge, helpful information, and experience, which will allow the customer to deal effectively with his or her problems (Wu and Wang, 2011). An

expert seller induces a considerably higher number of customers to buy products than non-expert sellers. In e-commerce, the reputation of service providers encourages customers to reduce information asymmetry and increases acceptance of e-commerce (Ruohomaa and Kutvonen, 2005). According to Xiao and Dong (2015), a merchant's reputation reduces information asymmetry in the online commerce market. As the mobile internet infrastructure and the use of smartphones evolve rapidly, product commerce has emerged as a new business model that blends offline businesses and online activities (Ma, 2017). (Carsten, 2014) that attracts online users to offline stores by offering information, services, and discounts through the product platform (Zhang, 2014). With the continuous growth of integrated online and offline environments, the development potential of cement producing commerce is huge (Kang et al., 2015). With this socio-demographic change, the online food market, including cement product commerce, is anticipated to continue to growing (Jang et al., 2011). Therefore, corporations need to understand customers' decision-making processes when they engage with cement product commerce as this new tool for both customers and businesses grows in popularity.

Customers are exposed to a lot of information but only use information they find useful for decision-making. Therefore, the level of information quality delivered by the seller is critical to business success. This is particularly true with experience products like food because customers cannot evaluate the quality of the product before consuming it ((Yang, 2015). Thus, the richness of the information is important because it allows customers to assess products such as food. Further, when customers purchase experience goods they depend more on who the service provider, message sender, or producer is than when they search for goods since they cannot effectively assess experience products. Therefore, information quality and high seller credibility are key factors in a product commerce context that influence customers' purchasing intentions and business performance. With this in mind, this research examined factors affecting customers' intentions to purchase food products using a product commerce platform. The current study focused on: 1) identifying the influence of information quality and source credibility on perceived usefulness and perceived ease of use; 2) examining the effect of perceived usefulness and perceived ease of use on customer trust in a cement producing commerce context; 3) analyzing the influence of customers' trust on attitudes and intentions to purchase food products; and 4) assessing the moderating effect of customer purchase frequency in the path between information quality, source credibility, perceived usefulness, and perceived ease of use. This research offers not only a theoretical foundation for further research but also practical implications for product commerce marketing communication strategies.(Maity and Dass, 2014).

Authentication

Authentication and digital access management are now more ubiquitous, have become significantly more complex, and may be tied to granular content management and services extending in some cases beyond the library. Both authentication and access management often rely directly or indirectly on personally identifiable information. It is not unusual to find that libraries have merged or tied authentication and access management into other library systems. Digital authentication techniques can pose privacy issues in their own right. But more problems arise when digital authentication is used in concert with other activities in libraries. For example, the greatly increased use of computers, networks, and virtual libraries typically result in the creation of multiple patron clickstreams and data trails. Authentication and access management technologies facilitate the capture, retention, analysis and eventual disclosure of the copious

amounts of transactional and other information that are captured in the variety of library technologies. When this stored information is linked or is capable of being linked to patron authentication, entire library patron clickstreams and digital activities over the course of time may be tied to a unique individual. The maintenance of these kinds of patron records represents a profound shift in library practice and policy, changes with significant ethical implications. Librarians, who have been well-trained in matters relating to patron confidentiality, tend to care deeply about such matters. However, the difficulty with today's authentication and access management schemes lies in their complexity and in their implementation. Many of the ethical challenges for privacy are subtle and buried deep within systems, so they are much more difficult to perceive. New authentication and access controls have become increasingly ubiquitous in library settings. Authentication and access management techniques can involve quite complex computing architectures and data flows; content vendors may require one form of authentication, while a networked information resource may require another. Authentication is often available ephemerally throughout the library using a wireless system that allows real-time authentication as needed. Today's authentication mechanisms may also manage both the green-lighting of the patron identity and the details of access to databases and to other services. In numerous public and private organisations, users can access robust databases in the physical library (as an in-domain user), or they can authenticate from home using their own computers and access the same databases (as an out-of-domain user).

Some libraries allow users to access their circulation records or to use photocopying services through the authentication, and it is not unusual for an academic library to also authenticate for course registration information. A number of highly granular access management systems have emerged, many of which incorporate additional layers of authentication and may also allow financial transactions. Some of these systems are proprietary, and may also include Digital Rights Management (DRM) tied to authentication. The eMeta "eRights" software, for example, manages digital rights, authentication, and subscription information.¹⁰ ASM International made its volumes available to academic libraries through this particular platform, as did Standard & Poors. Large reference database services such as WilsonWeb have made efforts to make their digital system compatible with a variety of widely used access and authentication management systems. But generally speaking, most libraries will have to accommodate multiple systems and chart out a complex variety of authentication layers to meet all of the external vendor requirements. These layers may be invisible to most patrons, and the patrons may be wholly unaware that they are authenticating to one or more off-site databases or content distributors. Most American privacy laws incorporate at least some Fair Information Practice policies. The principles of Fair Information Practices are as follows: 1. Collection Limitation Principle - There should be limits to the collection of personal data and any such data should be obtained by lawful and fair means and, where appropriate, with the knowledge or consent of the data subject. 2. Data Quality Principle. Personal data should be relevant to the purposes for which they are to be used, and, to the extent necessary for those purposes, should be accurate, complete and kept up-to-date. 3. Purpose Specification Principle. The purposes for which personal data are collected should be specified not later than at the time of data collection and the subsequent use limited to the fulfillment of those purposes or such others as are not incompatible with those purposes and as are specified on each occasion of change of purpose. 4. Use Limitation Principle. Personal data should not be disclosed, made available or otherwise used for purposes other than those specified in accordance with [the Purpose Specification Principle] except: (a) with the consent of

the data subject; or (b) by the authority of law. 5. Security Safeguards Principle. Personal data should be protected by reasonable security safeguards against such risks as loss or unauthorized access, destruction, use, modification or disclosure of data. 6. Openness Principle. There should be a general policy of openness about developments, practices and policies with respect to personal data. Means should be readily available of establishing the existence and nature of personal data, and the main purposes of their use, as well as the identity and usual residence of the data controller. 7. Individual Participation Principle. An individual should have the right: a. to obtain from a data controller, or otherwise, confirmation of whether or not the data controller has data relating to him; b. to have communicated to him, data relating to him within a reasonable time; at a charge, if any, that is not excessive; in a reasonable manner; and in a form that is readily intelligible to him; c. to be given reasons if a request made under subparagraphs(a) and (b) is denied, and to be able to challenge such denial; and d. to challenge data relating to him and, if the challenge is successful to have the data erased, rectified, completed or amended. 8. Accountability Principle. A data controller should be accountable for complying with measures which give effect to the principles stated above.

METHODS

This is non-contrived and cross-sectional design study that used both the subjects (organizations) and variables (Information Ethics, Business sustainability and Enterprise Vision) are not intended to be put under control for manipulation. Thus, rather than control these, the study seeks to measure the experiences of organizations with respect to the relationship among (Information Ethics, Business sustainability and Enterprise Vision inferred from the responses of the respondents the Cement Manufacturing firms). As a macro-level study, study population comprises of all the senior officers of all the four Cement Manufacturing firms operating in Rivers State. They include Dangote Cement Plc, Lafarge Cement Ltd, Bua Cement Plc and Ibeto Cement Nigeria limited. Consequently, in this study, there was no need to be involved in the rigorous procedures for determining an appropriate sample size rather census sampling was adopted because the population of study was very reachable. A census of 54 respondents was derived as the study sample. Pearson Product Moment Correlation Statistics was used in testing the relationship between the predictor variable (information ethics) and the criterion variable (business sustainability) and presented for easy interpretation with the Statistical Package for Social Sciences (SPSS version 20.0).

Table 1: Respondents/Participants of the Study

Name of Cement Manufacturing Firms	Respondents
1. Dangote Cement Plc	19
2. Lafarge Cement Nigeria Ltd	11
3. BUA Cement Plc	16
4. Ibeto Cement Nigeria	8
Total	54

Source: Administration Units of the firms

To ensure the respondents are free to express their views unhindered, Maduabum (2007) considers the questionnaire as a good instrument where anonymity is a concern given the

respective offices held by the respondents in the civil service sector. Each dimension and measures of the Business sustainability was examined on a set of multi-item instruments with 4 indicators each; all scaled on a four-point Likert scale ranging from 4 = Strongly Agree; 3 = Agree; 2 = Disagree and 1 = Strongly Disagree. Instrument was tested for reliability using the Cronbach alpha reliability value of

Table 2: Cronbach Alpha Reliability Coefficients of the variable measures

S/N	Dimensions/Measures/moderating Variable	Numbers of items	Numbers of Case	Cronbach Alpha (α)
1.	Information quality	4	40	.996
2.	Privacy	4	40	.935
3.	Authentication	3	40	.797
4.	Patent protection	4	40	.951
5.	Quality preservation	4	40	.896
6.	Enterprise vision	4	40	.992

Source: SPSS Result (Version 20)

The study proposed nine research hypotheses to seek explanation to the relationship between information ethics and business sustainability as well as the moderating influence of enterprise vision in such relationship. The Pearson Product Moment Correlation statistics was calculated using the SPSS version 20 to establish the relationship among the empirical referents of the predictor variable and the measures of the criterion variable. Correlation coefficients can range from -1.00 to +1.00. The value of -1.00 represents a perfect negative correlation while +1.00 represents a perfect positive correlation. A value 0.00 represents a lack of correlation. In testing hypothesis 1 – 9, the following rules were upheld in accepting or rejecting the null hypotheses. All the coefficient values that indicate levels of significance (* or **) as calculated using SPSS were accepted and therefore, our null hypotheses rejected; when no significance is indicated in the coefficient @ value, we accept our null hypotheses. Our confidence interval was set at the 0.05 (two tailed) level of significance to test the statistical significance of the data in this study. Data collected were analysed using the Pearson's Product Moment Correlation Coefficient formula as seen below:

$$r = \frac{n \sum xy - \sum x \sum y}{\sqrt{\left(n \sum x^2 - \sum x^2 \right) \left(n \sum y^2 - (\sum y)^2 \right)}}$$

Data are processed in the Statistical Package for Social Sciences (SPSS). It aids interpretation and discussion of findings, conclusion and recommendation. The statistical tool provides indicators that aid decision rules when ($p < 0.05$) you reject null hypotheses (H_0) that states, no significant relationship between variables; when ($p > 0.05$); accept null hypotheses (H_0) and reject Alternative hypotheses (H_A) that state significant relationship exists among variable.

Scatter plot of the relationship between information ethics and business sustainability of manufacturing firms in Port Harcourt, Rivers State.

According to Neuman (2000) in Asawo (2009), Scatter graph is one of the techniques used in deciding whether a bivariate relationship does exist between interval scaled variables. In a bid to determine the existence and trend of this relationship, we plotted a scatter diagram as presented

in the figure below information ethics as a predictor variable is plotted on the X axis whereas business sustainability as the criterion variable is on the Y axis.

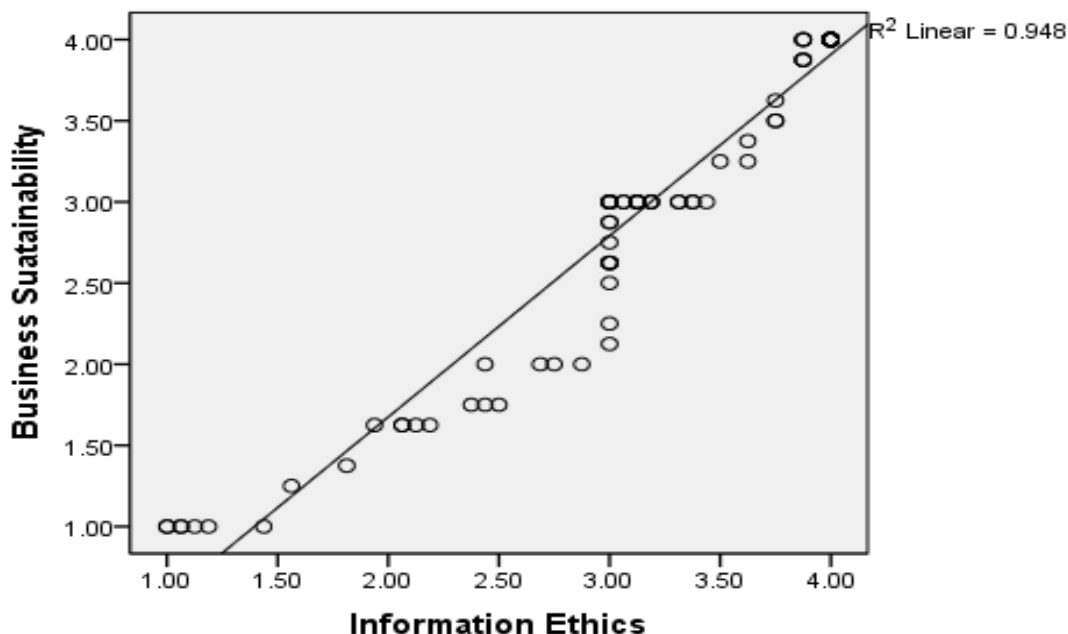


Figure 1: Scatter plot showing influence of information ethics and business sustainability

The figure 1 above shows a strong relationship between information ethics (independent variable) and business sustainability (dependent variable). The scatter plot graph shows at R^2 linear value of (0.948) depicting a strong viable and positive relationship between the two constructs. The implication is that an increase in information ethics simultaneously brings about an increase in the level of business sustainability.

Presentation of Results on the Test of Hypotheses

We had proposed nine research hypotheses in chapter one of this studied to seek explanation to the relationship between information ethics and business sustainability as well as the moderating influence of enterprise vision in such relationship. The Pearson Product Moment Correlation statistics was calculated using the SPSS version 20 to establish the relationship among the empirical referents of the predictor variable and the measures of the criterion variable. Correlation coefficients can range from -1.00 to +1.00. The value of -1.00 represents a perfect negative correlation while +1.00 represents a perfect positive correlation. A value 0.00 represents a lack of correlation. In testing hypothesis 1 – 9, the following rules were upheld in accepting or rejecting the null hypotheses. All the coefficient values that indicate levels of significance (* or **) as calculated using SPSS were accepted and therefore, our null hypotheses rejected; when no significance is indicated in the coefficient ® value, we accept our null hypotheses. Our confidence interval was set at the 0.05 (two tailed) level of significance to test the statistical significance of the data in this study.

Table 3. Correlation Matrix for information quality and business sustainability

		Information quality	Patent protection	Quality preservation
Information Quality	Pearson Correlation	1	.992**	.995**
	Sig. (2 tailed)		.000	.000
	N	40	40	40
Patent protection	Pearson Correlation	.992**	1	.989**
	Sig. (2-tailed)	.000		.000
	N	40	40	40
Quality preservation	Pearson Correlation	.995**	.989**	1
	Sig. (2-tailed)	.000	.000	
	N	40	40	40

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

Source: Filed Data, 2023

The table 3 shows the correlation of hypotheses one and two; the hypothesis one show a significant correlation at $r = .992^{**}$ where P-value = .000 ($P < 0.001$). This implies a strong and significant relationship between both variables at 95% level of confidence. We therefore reject the null hypothesis ($H_0:1$), and upheld the alternate and restated, thus; there is a significance relationship between information quality and patent protection of business sustainability in Port Harcourt, Rivers State, Nigeria.

The information in table 3 also showed hypothesis two show a significant correlation at $r = .955^{**}$ where P-value = .000 ($P < 0.001$). This implies a strong and significant relationship between both variables at 95% level of confidence. We therefore reject the null hypothesis ($H_0:2$), and upheld the alternate and restated, thus, there is a significance relationship between information quality and quality preservation of business sustainability in Port Harcourt, Rivers State, Nigeria.

Table 4: Correlation Matrix for privacy and business sustainability

		Privacy	Patent protection	Quality preservation
Privacy	Pearson Correlation	1	.982**	.972**
	Sig. (2-tailed)		.000	.000
	N	40	40	40
Patent protection	Pearson Correlation	.982**	1	.989**
	Sig. (2-tailed)	.000		.000
	N	40	40	40
Quality preservation	Pearson Correlation	.972**	.989**	1
	Sig. (2-tailed)	.000	.000	
	N	40	40	40

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

Source: Filed Data 2023

The table 4 shows the correlation of hypotheses three and four; the hypothesis three show a significant correlation at $r = .982^{**}$ where P-value = .000 ($P < 0.001$). This implies a strong and significant relationship between both variables at 95% level of confidence. We therefore reject the null hypothesis ($H_0:3$), and upheld the alternate and restated, thus, there is a significance relationship between privacy and patent protection of business sustainability in Port Harcourt, Rivers State, Nigeria. The hypothesis four show a significant correlation at $r = .972^{**}$ where P-value = .000 ($P < 0.001$). This implies a strong and significant relationship between both variables at 95% level of confidence. We therefore reject the null hypothesis ($H_0:4$), and upheld the alternate and restated, thus; there is a significance relationship between privacy and quality preservation of business sustainability in Port Harcourt, Rivers State, Nigeria.

Table 5: Correlation Matrix for authentication and business sustainability

		Authentication	Patent protection	Quality preservation
Authentication	Pearson Correlation	1	.977**	.962**
	Sig. (2-tailed)		.000	.000
	N	40	40	40
Patent protection	Pearson Correlation	.977**	1	.989**
	Sig. (2-tailed)	.000		.000
	N	40	40	40
Quality preservation	Pearson Correlation	.962**	.989**	1
	Sig. (2-tailed)	.000	.000	
	N	40	40	40

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

Source: Field Data 2023

The table 5 shows the correlation of hypotheses five and six; the hypothesis five show a significant correlation at $r = .977^{**}$ where P-value = .000 ($P < 0.001$). This implies a strong and significant relationship between both variables at 95% level of confidence. We therefore reject the null hypothesis ($H_0:5$), and upheld the alternate and restated, thus; there is a significance relationship between authentication and business sustainability in Port Harcourt, Rivers State. The hypothesis six show a significant correlation at $r = .962^{**}$ where P-value = .000 ($P < 0.001$). This implies a strong and significant relationship between both variables at 95% level of confidence. We therefore reject the null hypothesis ($H_0:6$), and upheld the alternate and restated, thus, there is a significance relationship between authentication and quality preservation of business sustainability in Port Harcourt, Rivers State, Nigeria. For the multivariate analysis, the partial correlation technique was used in testing the moderating effects of enterprise vision.

Table 6: Showing Partial Correlation of the moderating effect of enterprise vision between information culture and business sustainability

Control Variables		Information ethics	Business Sustainability	Enterprise vision
	Correlation	1.000	.992	.997
Information Ethics	Significance (2-tailed)	.	.000	.000
	Df	0	38	38
	Correlation	.992	1.000	.992
-none ^a Business Sustainability	Significance (2-tailed)	.000	.	.000
	Df	38	0	38
	Correlation	.997	.992	1.000
Enterprise Vision	Significance (2-tailed)	.000	.000	.
	Df	38	38	0
	Correlation	1.000	.379	
Information Ethics	Significance (2-tailed)	.	.164	
	Df	0	37	
	Correlation	.379	1.000	
Enterprise vision Business Sustainability	Significance (2-tailed)	.000	.	
	Df	37	0	

a. Cells contain zero-order (Pearson) correlations.

Source: Field Data 2023

In table 6 above shows the zero-order partial correlation between information ethics and business Sustainability shows the correlation coefficient where enterprise vision is moderating the relationship; and this is, indeed, both very high (0.992) and statistically significant (p-value (=0.000) < 0.05). The partial correlation controlling for enterprise vision however is (0.379) and statistically significant (p-value (= 0.000) < 0.05.). The observed positive “relationship” between Business Intelligence Application and Retail Business Sustainability is due to underlying relationships between each of those variables and organizational culture. Looking at the zero correlation, we find that both Business Intelligence Application and Retail Business Sustainability are highly positively correlated with organizational culture, the control variable. Removing the effect of this control variable reduces the correlation between the other two variables to be 0.379 and it is significant at $\alpha = 0.05$, therefore we reject the null hypothesis and conclude that: Organizational culture significantly moderates the relationship between business intelligence application and retail business sustainability in Port Harcourt, Rivers State, Nigeria

DISCUSSION OF FINDINGS

The empirical findings revealed a positive and significant relationship between information ethics and sustainability at 95% confidence interval, through Statistical Package for Social Science (SPSS) version 20.0. The empirical findings this study is in consonant with the study of

Paapa and Boakye (2017) conducted a study on information ethics compliance among the University of Ghana librarians. The author examined librarians' awareness, and perspectives about information ethics found out that librarians were adequately knowledgeable about information ethics and the majority of them complied with information ethics practices. Again, the study revealed a high consensus on what is deemed as ethical or unethical, acceptable or unacceptable use of information. Though librarians sometimes engaged in diverse information ethics violations, they knew they were indulging in unethical or very unethical use of data. The majority of the librarians indicated that access to the Internet, fear of failure, access to electronic databases, and the desire to obtain high marks were some of the motivating factors for violating information ethics. We therefore, deduced from the result of this current study that if information ethics compliance influence universities success and affect the universities when violated information ethics, we concluded that, information ethics influence business sustainability of patents protection and quality preservation especially the manufacturing firms in Rivers State, Nigeria.

The analysis of the collected data of the test of hypothesis one and two showed a strong positive relationship between information quality and measure of business sustainability on patent protection and quality protection of which the significant is based on $r=0.992$; $p= 0.000 <0.05.$, and $r=0.995$; $p= 0.000 <0.05$ both at 95% confidence interval leading to the rejection of the null hypothesis $H_{0:1}$ and $H_{0:2}$, stated in the chapter one, and upheld the alternate and restated thus; there is a significant relationship between information quality and patent protection and quality preservation. This finding correlates the study of Nor, Hazlifah & Norhayati (2017) on information quality in Malaysia organization and concluded that information quality is an important aspect in information management as it will determine the quality of information that is produced and develop in an organization.

The analysis of the collected data of the test of hypothesis three and four showed a strong positive relationship between information privacy and measure of business sustainability on patent protection and quality preservation of which the significant is based on $r=0.982$; $p= 0.000 <0.05.$, and $r=0.972$; $p= 0.000 <0.05$ both at 95% confidence interval leading to the rejection of the null hypothesis $H_{0:3}$ and $H_{0:4}$, stated in the chapter one, and upheld the alternate and restated thus; there is a significant relationship between information privacy and patents protection and quality preservation. The study findings support the study of Yuan, Shuyue and Yujong (2019) investigating privacy and information disclosure behaviour in social electronic commerce.

The analysis of the collected data of the test of hypothesis five and six showed a strong positive relationship between information authentication and measure of business sustainability on patent protection and quality preservation of which the significant is based on $r=0.977$; $p= 0.000 <0.05.$, and $r=0.962$; $p= 0.000 <0.05$ both at 95% confidence interval leading to the rejection of the null hypotheses $H_{0:5}$ and $H_{0:6}$, and upheld the alternate and restated thus; there is a significant relationship between information authentication and patents protection and quality preservation.

V. CONCLUSION

In the era of high competitive business environment, and the increasing need of organization information as assets, manufacturing firms must take proactive step in managing their information base ethically as to compete favorably in the midst of competitors as to ensure their

businesses are sustained. Therefore, the study concludes that information ethics positively enhances business sustainability of manufacturing firms in Port Harcourt, Rivers State, Nigeria. The results clearly indicated that there is a significant relationship between these two variables. The study highlights the critical importance of implementing information ethics within manufacturing firms in Port Harcourt, Rivers State, Nigeria. Specifically, the study has the following conclusions:

The study demonstrates a significant relationship between information quality and business sustainability of manufacturing firms in Port Harcourt, Rivers State, Nigeria. These results highlight the importance of implementing effective information quality measures to enhance overall productivity. Furthermore, this study provides compelling evidence of a significant relationship between information privacy and business sustainability of manufacturing firms in Port Harcourt, Rivers State, Nigeria. These findings underscore the critical role of privacy in the operational performance of organizations

Similarly, this study demonstrates a significant relationship between information authentication and business sustainability of manufacturing firms in Port Harcourt, Rivers State, Nigeria. These results emphasize the critical role of effective information authentication enhances overall quality preservation of manufacturing firms in Port Harcourt, Rivers State, Nigeria.

Finally, the study concludes that enterprise vision plays a significant moderating role in the relationship between information ethics and business sustainability of manufacturing firms in Port Harcourt, Rivers State, Nigeria. These findings highlight the importance of leveraging appropriate on enterprise vision to optimize the operation of manufacturing firms in Port Harcourt, Rivers State, Nigeria, as it enhances business sustainability.

RECOMMENDATIONS

Based on the findings of our study, the following recommendations are made:

- i) Information quality should be critically looking out for as the study showed that it enhances business sustainability of manufacturing firms.
- ii) Information privacy still remains a very important secret for business competitive advantage; hence it should be encourage across all business organizations.
- iii) Information authentication is very much needed in the manufacturing firms as the information needed for competitive advantage must be protected as it seen to enhance business sustainability.
- iv) To achieve successful organization, management of manufacturing firms and other defined their vision and stick to its details as it is seen to moderates the relationship between information ethics and business sustainability.

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