

Effect of Investment in Organizational Social Capital on Productivity in Bauchi State College of Agriculture.

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DOI: <https://doi.org/10.70118/AMR-0901-2025-03>

Abstract

This paper examined the relational pattern of members of staff within the context of organisational Social Capital and its effects on Productivity in Bauchi State College of Agriculture. It is an efforts geared towards analysing the Social Network and group relations among employees and how that influences the staff efforts towards Productivity, that is to say, whether the investments in the organisational Social Assets has positive result or not. The research methodology used in this study was survey, the study also used secondary data from the year 2018-2020 to complement the survey data. The targeted study populations includes both academic and non-academic staff of the College; the sample size of 96 members of staff was generated and distributed proportionately according to the population weight of each school, department and sub groups. The data collected was presented in frequency table with corresponding percentages while data was analyzed using ANOVA and Multiple Linear regression Analysis. The analyses shows that investments in social capital at organisational level rested on the six (6) key areas identified, which predicts the magnitudes and the outcomes of all efforts towards productivity. The paper offered recommendations with particular emphases on the Policy makers and leaders in the College to keep tab on the trend of social relation and network within the organisation, the need to maintain a consistent research on employees' behavioural pattern in relation to the work environment and also ensure that Senior colleagues ("free agents") and professionals receive due regards and respect in the organisation for the sake of stability and cohesion which brings about improvement in Productivity.

Key words: Group relation, Investments, Productivity, Social Capital, Social network..

Introduction

In everyday life we interact with each other; naturally or eventually, we develop ties and relations through our contacts, communication and participation in various activities, the network of relationship among individuals and group emanates from the social interactions which breeds influence and loyalty. This trend of happenings is not only natural but also eventual as we relate with each other in a formal or non-formal organisations on daily basis. Social relation

among workers at organisational level is much more than a mere a relationship that exist among people, it is a relationship established as a result of economic activities taking place, contractually agreed upon between the employee and the employer to perform certain obligations.

The Concept of Social Capital or Assets at organisational level is about group cohesion and personality currency, It is a resources generated through Social relation and group networks within organisation. Leana and Van Buren (1999) opines that Social Capital at the organisational level is a resource reflecting the character of Social relations within the organisations, realized through members' level of collective goal orientation and shared trust. It is a wired process of social network and attachments to group relation in the operation of service within the organisation. According to Kirby (2005). Another key adverse of staff turnover is the break of team work spirit within the organisation. It is important to note that when employees leave an organisation, the remaining counterparts experienced the gap left by their counterparts within a work group which largely affects the effectiveness of the group. Leana and Van Buren, (1999) reported that the loss of key network members, especially when accompanied by loss of other key network members, can severely damage an organisation's social fabrics and perhaps eradicate its Social Capital altogether.

1.2. Objective of the study

The objective of this paper is to examine the effect of Investments in Social Capital on the productivity of Bauchi State College of Agriculture, however the specific object of the study are as follows.

To examine how significant the Investments in Organisational Social Capital facilitate group orientation and loyalty among members of staff of the College.

To examine how effective has the Social relation in the departments helps improving productivity in the College.

To investigate to what extent has Social Asset of the Organisation improve Productivity in the College.

2.0. Literature Review

2.1 The Concept of Social Capital or Social Assets.

The paper referenced largely on a supplemental perspective on social capital or assets advanced by Dess and Shaw, (2001). The Theories buttress a shift from the Human Capital theory which suggests that organisational functioning is determined by accumulation of firm specific, valuable human capital (Stober, 1990). Human Capital is seen as the primary determinant of productivity, and because voluntary turnover diminishes human capital, productivity is weakened

as turnover increases. Human capital theorists make distinctions between firm specific and mere general skills and abilities. (e. g. Becker, 1993; Pil & Leana, 2000). The firm specific comprises the well trained members of staff, professionally reckoned with, they promote mentorship and social integration within the organisational level.

In contrast to Human capital theory, the Social capital theory's attention is on the Social network at organisational level. Dess and Shaw, (2001) concurred with Leana and Van Buren, (1999) in examining Social capital at organisational level – that is, “as a resource reflecting the character of social relations within the organisation, realized through members’ levels of collective goal orientation and shared trust”.

The key issue in the Social Capital theory is the convergent of group orientation and loyalty. Social Capital is seen as a public good, (organisational resource), rather than a private good (individual resources). It is critical because Knowledge based resources, in contrast to property based resources (e.g. machinery, equipment and lands) are tacit in nature and cannot be protected easily against loss or unauthorized transfer (Miller & Shamsie, 1996). While advancing argument on weight of Human and Social Capital considerations in Knowledge-based organisations, Dess and Shaw (2001) posit that developing and training human capital become less important, as the key players (talented professionals in particular; see Pink, 1998) take the role of “free agents”- that is, they bring with them to the table the requisite skill level in most cases. The development of social ties in organisation may help tie key knowledge workers (i.e., free-agent professionals) to the firm (Capelli, 2000).

According to Dess and Shaw, (2001) Social capital, by way of contrast, is created through combining and leveraging of resources. As such, it may yield exponential performance benefits for organisations, but it also increases the potential downside risk exposure should something go wrong (e.g., voluntary turnover of key network members). Several authors (e.g., Gerhart, Trevor, & Graham, 1996) have noted that the combining and leveraging of resources is an effective way to increase upside performance potential; it simultaneously exposes the organisation to the potential for negative synergy should the central figure and /or other key players in the network voluntary exit for other opportunities.

Most of the literatures that presents voluntary turnover situations in relation to loss of social capital had divorced the assumption of Human capital literatures, this was also noted by Becker and Gerhart (1996), that human capital, viewed the situation either as labour or as a business function, typically is regarded as a cost to be minimized or as a potential for increases in efficiency, but when voluntary turnover is viewed from a social capital perspective, the relevant performance outcomes are quite different. Rather than an emphasis on pooled

interdependence, as the human capital perspective suggests, sequential and reciprocal interdependence become salient (Thomson, 1967)). Here, the focus is on relationships among individuals and how they are able to combine resources in unique ways that are difficult for competitors to imitate, thus enhancing the potential for sustainable competitive advantages (Barney, 1991; Wernerfelt, 1984).

Challenges of Loss of Social Capital to Organisations.

The challenge of loss of social capital at organisational level is very crucial as it affects all the fabrics of the organisation as a whole, it breaks the strong social network and group relation bond among the employees as a unit and the strength of the relationship among them within the organisation which foster loyalty and group cohesion. The most challenging situation was advanced by Wysocki (2000), He pinpoints a new type of pied piper effect- team or networks of people leaving one company for another, which is, plaguing many organisations. He further opines that the trend is to have employees at a crux of social network be recruited away from organisations, especially if they are seen by the recruiting organisation as having the potential to bring with them a raft of valuable colleagues- a process referred to as “hiring via personal networks”. The challenge is therefore apparent that the loss of Social Capital brings about movement of workers, which is labour turnover. This situation brings about abrupt disruption on staffing and role performance, the organisation would be left with vacancies to be filled with other set of people new to the environment hence will have to stay over period of time for quarantine and induction. This trend was reported by Wysocki (2000) that there are several corporate victims (e.g. IBM, Walt Disney) of the departure en-mass, while other companies (e.g. Third Millennium, Healthon) have (at least temporarily) reaped the benefits.

The crux of the matter on the challenges of loss of social capital can be seen from the following critical areas:

- (1) The magnitude of the loss in a given situation.
- (2) The expected diminishment of organisational performance.
- (3) Create gap in knowledge sharing.
- (4) The Shared memory phenomenon.
- (5) The Shared trust.
- (6) The performance outcome.

The magnitude of the loss of social capital

The magnitude of the loss of Social Capital is critical to any organisation, hence it is a prime determinant of various aspect of the organisation behaviours, it reflects on several phenomenal, for example, in Productivity, in voluntary turnover situations, in staff espiri-de-corp, staff seniority and many other aspect of the human resource management. The magnitude largely tell on organisation towards understanding the extent upon which the investments was reduced or measure the loss.

The expected diminishment of the organisational performance

The expected diminishment in organisation performance is another critical issue in the loss of social capital situation, social capital is created through combining and leveraging resources – knowledge capital, it can therefore, reasonably be expected to be monotonic. Organisations, in such situation may have yielded exponential performance benefits, but it also increases the potential downside risk exposer should something go wrong (e.g., voluntary turnover of key network members).

Gerhart, Trevor & Graham (1996) have noted that the combining and leveraging of resources is an effective way to increase upside performance potentials; it simultaneously exposes the organisation to the potential for negative synergy should the central figure and /or other key players in the network voluntary exit for other opportunities. Dess and Shaw (2001) while making comparison, posit that social capital losses resulting from voluntary turnover will likely be more predictive of organisational performance than human capital losses in such organisations.

Create gaps in knowledge sharing.

In organisations individuals shares knowledge with others, those others can reap the benefits of the information (leading to linear growth), furthermore when those people go on to share the knowledge with others and feedback questions, amplifications and modifications that add further value for the original sender such accumulation of knowledge creates exponential total growth (Quinn et'al.,1996). Therefore, the loss of such cognitive cohesion resulting from voluntary turnover brings about erosion of the additive and exponential performance from the turnover. These problems are magnified by the potential for simultaneous departures of other network members.

The shared memory phenomenon

The result of knowledge sharing transits in to shared memory of organisational activities in the mindset of individuals. Wegner, (1987) posit that individuals in

long –standing groups develop transitive memory phenomenon for encoding and storing information in the social system. The process reduces the cognitive load of any individual and gives the group a large pool of information resources across domains and loss of this trend dramatically damages transitive memory, since transitive memory is based on the relative knowledge of others.

The shared Trust

The shared trust among the network of the group members was found to be an important factor in the process of investing in Social Capital in organisations, such trust exchange relationship is vital, given the salient role of resource combinations in knowledge base organisations. Therefore, organisation suffer disproportionate losses when individuals who are successful in creating Social Capital via the maintenance and augmentation of network relationships throughout the organisation leave the organisation.

The performance outcome

Knowing the other part of the effect on performance outcome, Dess and Shaw, (2001) posit that when the effect of voluntary turnover is viewed from a social capital perspective, the relevant performance outcomes are quite different. According to Thomson (1967) the focus is on relationship among individuals and how they are able to combine resources in unique ways that are difficult for competitors to imitate, thus enhancing the potential for sustainable competitive advantages. Nanaka and Takeuchi (1995) make the important point that “knowledge is created and expanded through social interaction between tacit and explicit knowledge”.

2.2. The Concept of Productivity

What appears to be central in discussion on productivity is that productivity describe the output of organizations’ production process. It is apparent that real challenge to organisations is how to prove the value of all efforts in the production process. Many external factors can affect productivity, -- national economy, a recession, inflation, competition and so on. Productivity is a relative term to organisations and settings; it has many theoretical backgrounds. For example, Classical Economists, (Ricardo, Marx et’al), posit labour as a quantity; Human Capital theorist, (Smith, Schultz, Becker, et’al) view it as investment in education/training which can boost labour productivity; Beyond human capital, (Lazeer) perceives it as personnel economics. The Concept of Productivity was discussed in many literatures as a Unit or Index of output divided by a Unit or Index of input. According to Jovonavic, (1979) there are basically two measures, however, they differ in terms of the output measure. The first is based on Gross Output (GO) and the second on the Gross Value Added (GVA). These two measures of productivity in public service (which

includes labour, capital and intermediate goods and services) are concerned more with productivity of one factor – Labour.

The Organisation for Economic Cooperation and Development (OECD) Report, (2002) describes the Gross Output (GO) labour productivity as a measurement using the Index of the volume of final spending on public services provided by the government, divided by an Index of labour used in those services. While, Gross Value Added (GVA) labour productivity is a measurement using the index and value added based on industries defined by standard industrial classification of economic activities codes. The index of the value added divided by an index of hours worked in these industries. Workforce productivity or labour productivity involves the measure of amount of goods and services that a worker produces in a given amount of time. It is one of several types of productivity that economists measure. The OECD, (2002) defines it as “the ratio of a volume measure of output to a volume of input”. Volume measure of output are normally gross domestic product (GDP) or gross value added (GVA) expressed at constant prices i.e. adjusted for inflation. The three (3) most commonly used measures of input are (a) Hours worked; (b) Workforce jobs and (c) Number of people in employment.

Types and Approaches to Productivity Measurement

Approaches to how productivity is measured depends on the nature of industry and its strategic objectives. Sullivan, *et al*, (2020) posits that Standard methods for measuring productivity were developed for profit or shareholder value-maximizing firms engaged in the production of tangible goods. These methods may not be applicable, valid or accurate for Higher education which is a very different enterprises. Smart sheet analysis, (2020) classified the approaches in to three (3), first, partial factor productivity, this is made up of the ratio of total output to a single input. It is easy to use because the data is available and easy to access. Also partial factor productivity equations are easier to relate to specific process because they only deal with one input. Second, Multifactor productivity, this is the ratio of total output to a subset of inputs. For example, an equation could measure the ratio of output to labour, materials and capital. This method is a more comprehensive measure than partial factor productivity, but it's also harder to calculate. Third, Total factor productivity, this formula combines the effects of all the resources used in the production of goods and services (labour, capital, material etc.) this method can reflect simultaneous changes in output and inputs, however they do not show the interaction between each output and input separately.

In a way similar, Sullivan, *et al*, (2020) suggests that several different productivity measures can be used to evaluate the performance or efficiency of an industry, firm or institutions, either as a Single – factor productivity measure

(the ratio of output per labour-hour) or Multi-factor productivity measure (which relates output to a bundle of inputs, e.g. labour, capital materials).

Barere, (2019) posits that the common inputs comprise, labour hours, Capital, and natural resources. While common output is measured in sales or number of goods or services produced. Also identified employee productivity and labour/organisational/ industry productivity as the types of productivity measure. However, he further suggests for a 360 Degree feedback model. In this method, organisation solicits and uses feedback that comes from an employee's coworkers. In this approach, productivity is evaluated by asking both superiors, peers and subordinates. The total sales productivity formula = $\frac{\text{Net sales}}{\text{output}}$

Hours worked (input)

Importance of measuring productivity

Stainleigh, (2015) opines that measuring performance is a vital part of monitoring organisations' progress. It comprises measuring the actual performance outcomes or results of an organisation against its intended goals. Create your strategic performance measures, communicate these through all departments, identify the key business processes, eliminate a "silos" approach to measurement and measure the right things. Establish criteria to determine the key business process, for example; use the measurement of the impact on customers, the bottom-line, the sales, the profits and so on. This will determine which organisational process are the key business processes, the ones that support or fit into the key business process throughout the organisation. Smart sheet, (2020) analysis suggests that while the formula to calculate appears fairly straightforward, organisation may tweaks based on industry. How organisation define its strategic objectives and the approach to measure of productivity changes based on the jobs in the industry, therefore have to adjust the equation. Barere, (2019) opines that productivity measure help in understanding the efficiency of a company's production process. It is calculated by dividing the outputs produced by the company by the inputs used in its production process. Smart sheet, (2020) analysis suggests that while productivity measures quantity, efficiency measure quality.

Sullivan, *et'al*, (2020) opines that application of a productivity metric to a specific industry or enterprises can be complex, particularly for education and certain other service sector of the economy. Applied to Higher education, a productivity metric might track the various kinds of work-hour that go into producing a student credit hour or Degree. The limitation of productivity metric is that Higher education uses a wide variety of operational approach. Of even greater significance is the fact that the quality of inputs (students, teachers, facility) and output (degrees) varies greatly across contexts.

2.3. Empirical Review

Dess & Shaw (2001) in one of their article titled “Voluntary turnover, Social Capital and organisational performance discussed extensively and proposes a supplemental perspective, based on organisational social capital for examining the voluntary turnover-organisational performance relationship. The objective of the study relate to the rapid change in the nature of work, organisational structures, and interorganisational competitiveness increase the importance of studying the role of social capital in the voluntary turnover- organisational performance relationship. The study highlight areas of correspondence and divergence among the various perspectives, discuss implications for various performance measures and outline several research directions.

Bafandeh (2011) in his research result showed that the open distance education can affects quality and quantity of social capital in country. A focus on social capital allows for a closer examination of capacity of individuals and groups for making linkages among themselves and with organizations at local or national level. The point is that rule of distance education in social capital promotion have been neglected by researchers and decision makers.

Ahmadi (2012) the study result showed that there is a meaningful relationship between the three dimensions of the social capital and the knowledge management effectiveness. In continuation the organisational rating was assessed based on the knowledge management dimensions and the social capital and in the end some recommendations were introduced for promotion of the Social capital and knowledge management within the organisation.

Heidari & Rostami (2012) the result of Heidari and others showed that the level of Social capital and organisation entrepreneurship infirmity in this organisation also it was concluded that there are significantly correlation between organisation entrepreneurship and Social capital.

2.4 Theoretical Framework

There exist number of theories on the organisational Social capital, the major theories were categorized in to social interaction theory, the relational dimension theory and the cognitive dimension theory. According to Tantardini & kroll (2015) three key component constitute organisational Social Capital: Structural Social Capital which refers to the connections among actors: Relational Social Capital which refer to trust among actors, and Cognitive Social Capital which refers to the level of shared goals and values among actors. This study adopted Structural Social capital theory as the main trust, The Structural Dimension of the Social Capital refers to the “configurations of linkages between people and units” (Salajegheh & Pirmoradi, 2013). According to Andrews (2011) formal and informal collaboration and coordination as well

as interaction between colleagues, units and departments creates spillover effects that can ameliorate working conditions and individual and organizational performance. One important component of Structural Social Capital are network ties which provide access to resources and information. Another component is the network configuration which constitutes the channels through which information is transmitted within an organization (Salajegheh & Pirmoradi, 2013). It is important to note that the term “network” refers to collaborations within an organization and is therefore differently used than usually in public administration studies. Contacts can have positive “timing effects”, and since being in a network not only improves access to information but also makes it more likely to be informed promptly. (Tantardini and Kroll, 2015).

3.0 Methodology

The study used a combined research design, both survey and secondary data to complement the study findings. The population of the study comprises both academic and non- academic staff of the College. Simple Random sampling technique was employed to select the sample population. The Total population for the study is 229, for the sample size, the study adopts the opinion of Nwana (1981) that ‘if the population is a few hundreds, a 40% or more samples suffices, if many hundreds, 20%, while if several thousands, 10% or more sample suffices.’ Omale (2014) opines that ...quite a number of researchers use 10% of the population as a guide for sample size. For this study, since it is few hundreds, 40% of the sample frame was adopted, the sample size of the survey from the frame is $40/100 \times 229 = 92+1$ (vr) =93, therefore, the study $N = 93$. The rule of analyses for the significance of productivity is 1 and above.

4. Data Presentation and Analyses

4.1 Data on Organisational Social Capital/Asset of the Bauchi state College of Agriculture

4.1.1. The Bauchi State College of Agriculture:

According to L.M. Shehu (2015) prior to the demerger of the Bauchi State College of Agriculture from the Abubakar Tatari Ali Polytechnic, the Institution was in existence since 1971 and was hitherto known as School of Agriculture and Animal Husbandry owned by the then Ministry of Agriculture of the defunct North Eastern State of Nigeria. Over the years the School runs programmes of Studies with the supervision of the Ministry of Agriculture. The School developed into a full pledged Institution of Higher Learning with the introduction of Diploma Programmes and other professional courses. The school was merged with Abubakar Tatari Ali Polytechnic to enhance its credibility and for the purposes of regulation and certification by the National

Board for Technical Education (NBTE), for the award of National Diploma and Higher National Diploma. The Development and formalization of both the Polytechnic and the College of Agriculture goes concurrently, more importantly with the demerger from the polytechnic and renaming it to Bauchi State College of Agriculture, which marked yet another milestone in the number of tertiary institutions in the State. According to L M Shehu (2015) the Bauchi State College of Agriculture was established via the laws enacted by the Bauchi State House of Assembly namely; “College of Agriculture Law” 2012 assented by the Governor, Mallam (Dr.) Isa Yuguda on 13th June 2013. However in order to put records straight, the efforts and pressure for the demerger of Bauchi State College of Agriculture from the Tatarsi Ali Polytechnic to become independent came up after the establishment of Bauchi State University in 2010. The Laws for the two Tertiary Institutions were enacted within June 2013 and September 2014.

4.1.2. The Social Capital/Asset of the College:

In an attempt to obtain the status of the Social Capital of the Colleges, the measure of Social Capital is imperative to enable the study findings becomes dependable. Pirmoradi (2013) opines that the effect of social capital contributes not just to the success of individuals and teams but the organization at large. However to measure the loss or otherwise of the Social Capital remains contemplated. According to Tristan (2017) Social Capital cannot be measured directly, but can be inferred from its determinants or manifestation, the determinants are factors that have an impact on social interactions and therefore allow Social Capital to come about. Manifestation are the outcomes of Social Capital. We measure Social Capital by using indicators or proxies that are theoretically linked to Social Capital. Rahma Shazi (2017) opines that given the lack of agreed methods for measurement, researchers tends to identify the important elements or factors that suit their research context and develop their own instrument ...there is almost universal agreement that Social Capital is difficult to measure with a high degree of validity...unfortunately there is no silver bullet; no perfect tool for Social Capital measurement. Elham (2012) posits that one of the best way to measure Social Capital is through measuring its dimension. These dimensions includes structural dimension, relational dimension and cognitive dimension (Nahapiet and Ghoshal, 1988). In a discuss on a guide for the measurement of Social Capital at any level and any context, Tristan Claridge (2017) opines that Social Capital is usually measured by questionnaire survey, using indicators that tap in to social connections, social networks and social support. This study observed the huge gap in the area of measuring the loss or otherwise of the Social Capital, however, for the purposes of this study, the opinion of Tristian (2017) to measure by questionnaire survey was adopted using social network indicator as was mentioned in the study theoretical frame.

4.1.3. Survey results and illustrations

Table 1. Group orientation and loyalty creates Social Capital (N=93)

	Opinion	Frequency	Valid		Cumulative %
			Percent	Percent	
Valid	Strongly Agreed	20	21.5	21.5	21.5
	Agreed	44	%	47.3	68.8
	Neutral	08	47.3 %	8.6	77.4
	Disagreed	01	8.6	21.5	98.9
	Strongly Disagreed	93	%	1.1	100
	Total			21.5 %	100
			1.1 %		
			100%		

Source: Field survey, 2019.

Table 2 illustrate that a total of 68.8% (21.5% +47.3%) of the respondents agreed that group orientation and loyalty creates the needed Social Capital/Assets, while 8.6% of the respondents were neutral. The remaining 22.6% (21.5% + 1.1%) of the respondents disagreed. The opinion shows the consciousness of the members of staff of the College on the group orientation in the social relation pattern, most importantly that it has yielded loyalty in the departments which is the bedrock of the accumulation of the Organisational Social Capital/ Asset. Team work and social network in organisation brings about the bond of loyalty to the superiors and encourage mentoring.

Table 2. Social Relation and Staff performance (N=93)

	Opinion	Frequency	Valid		Cumulative %
			Percent	Percent	
Valid	Strongly Agreed	22	23.7%	23.7	23.7
	Agreed	46	49.5%	49.5	73.2
	Neutral	04	4.3 %	4.3	77.5
	Disagreed	19	20.4%	20.4	97.9
	Strongly Disagreed	02	2.1%	2.1	100
	Total	93	100%	100	

Source: Field survey, 2019

Table 3 illustrate that 73.2% (23.7% +49.5%) of the total respondents agreed that the Social relation among the members of staff in the College raised up the general performance in the departments. while 4.3% were neutral. The remaining 22.5% (20.4%+2.1%) disagreed. Hom and Griffeth (1991) posit that group relation and interrelations is key in job facets motivators, integration of groups reduces value conflicts. According to Steers (2002) it is not enough for team members to be skilled, but they must be motivated to work together in the

organization. The survey opinion therefore, suggests that social network and group relation is a key in maintaining the organisational social capital or assets.

Table 3. Group Social relation and service output (N=93)

	Opinion	Frequency	Percent	Valid Percent	Cumulative
Valid	Strongly Agreed	21	22.6%	22.6	22.6
	Agreed	50	53.8%	53.8	76.4
	Neutral	05	5.4%	5.4	81.8
	Disagreed	15	16.1%	16.1	97.9
	Strongly Disagreed	02	2.1%	2.1	100
	Total	93	100%	100	

Source: Field survey, 2019.

Illustration on table 4 shows that 76.4% (22.6%+53.8%) agreed that there is significant relationship between group Social relation and service output in the College. while 5.4% were neutral and 18.2% (16.1%+2.1%) disagree. The Group Social relation has been identified as an important factor which stimulate higher productivity, the gross service output increases in a friendly working environment. According to Leana and Van Buren (1999), social capital is an asset which gives benefit to individual and organisation. The importance of social capital is that it causes gathering of individual as team members who work together to succeed.it also causes the integrity of staff and management.

Coefficient

Model	Unstandardized Coefficients		Standardize t	Sig.
	B	Std. Error	Beta	
(Constant)	361	0.43	-.6021	.000
Investments in the Social capital.	321	.063	.249	.000
Productivity,	240	.074	.264	.000
	271	.021	.275	.000

Dependent variable: Social Capital.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.834 ^a	.821	.810	.25652

Predictors: (Constant), Social capital,

Table above shows R figure at 0.83 we can say that, there is strong relationship between independent and dependent variable. This further indicates that, this model is fit to be used in this study.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	231.211	5	50.038	521.515	.000 ^b
	Residual	15.242	221	.083		
	Total	247.933	216			

a. Dependent Variable: Productivity

b. Predictors: (Constant), Social capital, Social relation, Group ties.

The ANOVA Table above shows the overall significance relationship between the two variables under consideration.

The result of the statistical table above shows that, the value for f-factor regression models stood at 521.515. The value is greater the value of level of significant which stood at 0.000. This means that, the model is fit for the

variable under consideration. Goodness of fitness in the use of this (regression) model has 92% level of confidence interval.

4.2. Measuring Productivity situation in Bauchi State College of Agriculture.

In this part, the study attempted to measure productivity in Bauchi State College of Agriculture, using secondary data obtained from the regulatory agency of the College, that is, NBTE and other records within reach in the College related to productivity. These facts, reflect on key organisational process derived from the achievable objectives, task accomplishment, input index and output index. The stream of the measurement is on a knowledge base output, which is a non-tangible output or unit of production, rather a combined task of performance geared towards the College achievable objectives. The output index appeared on scale of group efforts through the process of imparting knowledge and research at a targeted period of task to be accomplished. It is a summary of content of the assessment reported by the regulatory agency of the College and the information obtained from the Directorates of Academic planning and Quality Assurance.

4.2.1. Assessment on Curriculum Delivery in Bauchi State College of Agriculture

In this aspect of presentation, the statistics are derived from the assessment of curriculum and knowledge delivery in the College, Curriculum delivery centered on the final tools of evaluation which preceded Instructional materials, Atmosphere of learning, Teacher qualification, and nature of the curriculum. (Nasir, Eves and Yusof, 2012). The table below show the assessment of the curriculum delivery as reported in the evaluation tools and minimum standards.

Table 4. Assessment report on Curriculum delivery, (2018-2020)

S/N	NAME OF INSTITUTION	2018	2019	2020	Total % average	Rating
1	Bauchi State College of Agriculture	64	56	68	63%	B

Source: NBTE, DAP&QA (2015-2020).

The report comprises the assessment conducted on the following parameters: (a) Nature of Curriculum and learning objectives, (b) Instructional materials and teacher/students participation,

(c) Atmosphere of learning and curriculum coverage, (d) Teacher' qualifications and knowledge update and (e) the evaluation tools and techniques.

The Rating of performance of the assessment report on curriculum delivery can be measured using average of the sum total of the percentage indicated in the table. Therefore, average of the rating is as follows:

$$64\% + 56\% + 68\% = 188 * 100 / 3 = 63\% = \text{Grade "B"}$$

The average of the sum total of the Collage performance shows high standard of delivery of the Curriculum within the period under review, consider the rating of each year. The overall grade of "B" is an excellent performance by all standard of rating.

4.2.2. Assessment on Academic Progression and graduation in Bauchi State College of Agriculture

Academic progression is an achievement on students' status that was assessed using GPA in a semester or CGPA in a complete session. Kishore, *et al*, (2014) posited that to explore the academic progression of students, higher educational institutions need better assessment and prediction tools. In this regard, multilayer perception (MLP) based prediction application is proposed to predict the Grade Point Average (GPA) of the undergraduate students by the use of student' previous academic history, regularity, number of backlogs, degree of intelligence, working nature, discipline, social activities and grades.

From the statistics on the tables, the rating of the College on graduation and students' progression is generally good as reported by the NBTE and the Academic planning, and it shows convocations of the graduates as a practical evidences of the productivity in each year of the study.

Table 5. Assessment report on Graduation and Academic progression, (2018-2020)

S/N	NAME OF INSTITUTIONS	2018	2019	2020	Graduation and Progression	Rating
1	Bauchi State College of Agriculture	356 257	590 567	410 694	1,356 1,839	Good status

Source: NBTE, DAP&QA.

4.2.3. Assessment on Research and Publications in Bauchi State College of Agriculture

Academic publishing involves dissemination of academic research and scholarship. Most of the academic works in the College were published in academic journals (as articles), books, thesis or jointly sponsored research report. It is an important activity in the development and progress of any profession. Research and publication is therefore a major indices in determining the quality of higher education, which is in the form of articles published in journals. It is one of the benchmarks in determining the quality of Academic institutions, (Bashar, 2021). Success in creating high-quality publications would also provide the College and the researchers a chance to excel and gain prestige. In the records of the College, Academic journals and conference papers, Book (s) or chapters in the publications are integral part of academic staff promotions and development. Most of the publications are sponsored work by the TETFUND, the statistics is as follows:

Table 6. Assessment report on Research and Publications

S/N	NAME OF INSTITUTIONS	2018	2019	2020	Rating
1	Bauchi state College of Agriculture	96	115	124	Good

The statistics on table show adequacy of publications particularly by the job specific trained workforce (Academic staff), the institutions' records also show that the rate of the publications was motivated by the support through Academic Staff Training and Development Fund (AST&D) by the TETFUND.

Table 7. Input and output Index of productivity

Name of the College and the regulatory agency	Summary of measure of input/output index for the year under review (SC)					
	2018		2019		2020	
DETAILED REVIEW	IP	OP	IP	OP	IP	OP
<u>NBTE (SC):</u> Bauchi State College of Agriculture. Total	62 62%	65 65%	61 61%	70 70%	61 61%	69 69%

Source: NBTE, DAP&QA

Key to the Measure of the Index:

IP = Input. OP= Output. SC = Standard of compliance with minimum standards.

Performance = the achievements reported.

Index of output (OP) = % performance reported on overall service delivery.

Index of input (IP) = % Budget performance reported.

The Measure of the index of Productivity is as follows:

Values of index of output

Values of index of input

$$65 + 70 + 69 + =204 / 3 = \mathbf{68}$$

$$62 + 61 + 61 = 184/3 = \mathbf{61}$$

$$\text{Productivity} = \frac{68}{61}$$

$$= \mathbf{1.1} \text{ (significant positive value of productivity)}$$

Table 8. Statement of Productivity Assessment of Bauchi State College of Agriculture

S/ N	Variables of the studies	Productivity Assessment by the internal departments.				Productivity Assessment by the regulatory agencies.			
		%	Ratin g	Performa nce	Rema rk	%	Ratin g	Performa nce	Remark
1	Curriculum Delivery	N A	Goo d statu s	Positive result	High effect	66	B	Positive result	Higher productiv ity
2	Academic Progression	N A	Goo d statu s	Positive result	High effect	N A	Goo d statu s	Positive result	Higher productiv ity
3	Research and Publications	N A	Goo d statu s	Positive result	High effect	N A	Goo d statu s	Positive result	Higher productiv ity

Analysis of the findings

The illustrations on tables 1 to 3 and the statistical confirmation of the data generated shows both the differential and categorical respondents’ opinion on the scale of effectiveness of the Social Capital/Asset in the Bauchi State College of Agriculture, it shows the investments that was made in the College to build

up the Social relations and how that improve performance, group orientation and loyalty among the members of Staff of the College. Table 4 to 8 shows the measure of productivity in the College; Gross Output Model was adopted to measure the productivity which comprises both the output and the input index within the period of three (3) years, that is, 2018, 2019 and 2020. The Index of both input and output were measured from the percentages obtained from the raw data. The productivity was determined with a result of 1.1 which is a significant positive value of productivity. It can therefore be argued that Social Network and group relations among employees has a significant influence on the staff efforts towards Productivity, that is to say, the investments in the organisational Social Assets has positive result and the College has benefited from the increased in staff performance and productivity.

Discussion of Findings

The study findings on table 1 to 8 has correlation with the objectives of the study, which is to investigate to what extent has Social Asset of the Organisation improve Productivity in the College, and how significantly the Investments in Organisational Social Capital facilitate group orientation and loyalty among members of staff and how that situation affects the productivity of the College. From the results of the study and analysis of the findings, it shows the strong relationships of the investments in Social Capital and Productivity in the College, where by the significance of the Productivity value is higher or greater than 1 from the index. The study findings therefore, justified that the key indices in the study has been evaluated, that is, Curriculum Delivery, Students' progression and achievements, and Research and publication which formed the bases of measuring productivity of Bauchi State College of Agriculture.

5.0. Conclusion and Recommendations

The data presented shows very significant relationships between the Social Capital/Asset of the College and the Organisational productivity. The Summary of the relationships between the investments and the level of productivity as reported shows positive result that the Organisational Social Capital facilitate group orientation and loyalty among members of staff and the situation has significantly affected the productivity of the College. The results also justified the theoretical frameworks, in which the trust is that the Structural Dimension of the Social Capital, which is, a "configurations of linkages between people and units" that formal and informal collaboration and coordination as well as interaction between colleagues, units and departments creates spillover effects that can ameliorate working conditions and individual and organizational performance.

Finally, the study recommended that Management and the Decision makers of the College shall consistently appreciate the bond and Social ties among the

members of staff, that is, the labour that work as a team all the time and ensure that the Senior Colleagues mentored the young academics and administrators of the College to sustain the group performance and improve better in the service delivery. Also recommended with particular emphases on the Policy makers and leaders in the College to keep tab on the trend of social relation and network within the organisation, the need to maintain a consistent research on employees' behavioural pattern in relation to the work environment and also ensure that Senior colleagues ("free agents") and professionals receive due regards and respect in the organisation for the sake of stability and cohesion which brings about improvement in Productivity.

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