

FACTORS FOR POOR PERFORMANCE OF PRIVATIZATION OF  
ELECTRICITY SERVICE DELIVERY IN EKITI STATE NIGERIA

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To God be the glory!  
The author and finisher of my faith

“Unless the LORD had been my help, my soul had almost dwelt in silence”. Psalm  
94. 17 KJV

HE “Shew me a token for good; that they which hate me may see it... because HE,  
hast holpen me and comforted me” Psalm 86. 17

Known unto God are all his works from the beginning of the world Act 15:18

“He who is to be known is first forgotten”

To God be the glory.

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All glory and honour be to God in the highest

## ABSTRACT

The quality of electricity service delivery which is publicly owned in Nigeria has been found to be unreliable with inconsistent supply and persistent power failure. This necessitates the option for privatisation approach to salvage the poor quality of this delivery. However, the current situation after privatisation is far from the expected reliability, and quality of the electricity service delivery. Hence, this research evaluates factors causing poor performance of privatisation approach to electricity service delivery. The objectives are to investigate why factors of due diligence and spatial data of electric facilities are not adequately considered in the privatisation planning process as well as the need to assess factors for poor performance of electric facilities functional condition and service quality. Similarly, factors for poor performance of existing electric facilities distribution network before and after privatisation were evaluated. The instruments used were interviews and questionnaires. 18 respondents comprising Benin Electricity Distribution Company (BEDC) Management Officers, and senior officers from relevant government agencies including Bureau of Public Enterprise, National Electricity Regulatory Commission, and Federal Ministry of Power were purposively selected for in-depth interview. Using multistage sampling techniques, data were collected from 397 household heads from the neighbourhood of the selected four local governments using questionnaires. Content and thematic analyses were used for qualitative data analysis, while descriptive analysis and Wilcoxon test for the median difference were used to compare the two samples of household head responses. Besides, instrument reliability using Cronbach Alpha, multiple regressions analysis, and variance-based Structural Equation Modelling were used in the quantitative data analyses. Findings revealed unreliable and unsatisfactory electricity service quality. Service provider cum customer relationship was still poor as there was no significant median difference in the Wilcoxon test  $< 0.05$  after privatisation except in a few variations. The importance of factors of electric facilities functional and network conditions were all significant in the hypotheses test at Probability value- $p < 0.05$  and Critical Ratio-CR  $> \pm 1.96$ . The research concluded the imperative of adequate consideration of the factors of spatial data of electric facilities as a prerequisite to excellent performance of electricity service delivery in privatisation. Based on the findings, a privatisation planning process with detailed consideration for the factors of electricity service delivery components and their spatial data framework is recommended.

## ABSTRAK

Kualiti penyampaian perkhidmatan elektrik milikan awam di Nigeria didapati tidak dapat diandalkan ekoran bekalan yang tidak konsisten dan gangguan tenaga elektrik yang berterusan. Perkara ini menyebabkan perlunya pendekatan penswastaaan sebagai pilihan bagi menambahbaik kualiti bekalan elektrik. Namun begitu, keadaan semasa setelah pelaksanaan penswastaaan adalah jauh daripada andalan dan kualiti perkhidmatan bekalan elektrik yang diharapkan. Oleh itu, kajian ini menilai faktor kelemahan pendekatan penswastaaan dalam penyampaian perkhidmatan elektrik. Objektif kajian adalah untuk meneliti mengapa faktor kecukupan usaha yang wajar dan data spatial kemudahan elektrik tidak dipertimbangkan dalam proses perancangan penswastaaan, dan juga keperluan menilai faktor kelemahan prestasi fungsi keadaan kemudahan elektrik dan kualiti perkhidmatan. Faktor rendahnya pencapaian rangkaian bekalan kemudahan elektrik sebelum dan selepas penswastaaan juga dinilai. Instrumen yang digunakan ialah soal selidik berstruktur, pemerhatian dan temu bual. Seramai 18 orang responden terdiri daripada pegawai Pengurusan Syarikat Pembekal Elektrik Benin (BEDC) dan pegawai kanan dari agensi kerajaan termasuk Biro Perusahaan Awam, Suruhanjaya Kawal Selia Elektrik Negara dan Kementerian Tenaga Persekutuan telah dipilih bagi temu bual secara mendalam. Dengan menggunakan teknik pensampelan berbilang tahap, 397 orang ketua isi rumah dalam kawasan kejiranan daripada empat pihak berkuasa tempatan telah ditemubual menggunakan soalselidik. Analisis kandungan dan tematik telah digunakan untuk analisis data kualitatif manakala analisis deskriptif dan ujian Wilcoxon bagi perbezaan median digunakan bagi membandingkan dua sampel maklumbalas dari ketua isirumah. Selain itu, kebolehpercayaan instrumen menggunakan Alfa Cronbach, analisis berbagai regresi dan Model Persamaan Struktur berdasarkan varians digunakan bagi analisis data kuantitatif. Dapatan kajian menunjukkan perkhidmatan elektrik tidak dapat diandalkan dan tidak memuaskan. Hubungan antara pembekal perkhidmatan dengan pelanggan juga adalah lemah di mana perbezaan median ujian Wilcoxon  $< 0.05$  selepas penswastaaan kecuali dalam beberapa variasi. Faktor kepentingan fungsi keadaan dan rangkaian bekalan kemudahan elektrik adalah signifikan dalam ujian hipotesis di mana nilai kebarangkalian- $p < 0.05$  dan nisbah kritikal-CR  $> \pm 1.96$ . Kajian ini merumuskan bahawa data spatial kemudahan elektrik yang mencukupi adalah prasyarat kepada pencapaian prestasi perkhidmatan bekalan elektrik dalam penswastaaan. Berdasarkan dapatan kajian, proses perancangan penswastaaan dengan mengambilkira komponen penyampaian perkhidmatan elektrik dan kerangka data spatial yang terperinci telah dicadangkan.

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## LIST OF ABBREVIATIONS

BOT	-	Built Operate Transfer
DISCOS	-	Distribution Company
NCP	-	National Council on Privatisation
NITEL	-	Nigerian Telecommunication Limited
NRC	-	Nigerian Railway Corporation
PHCN	-	Power Holding Company of Nigeria
NEPA	-	Nigeria Electric Power Authority
USAID	-	United States Agency for International Development
BEDC	-	Benin Electricity Distribution Company
EFA	-	Exploratory Factor Analysis
SEM	-	Structural Equation Model
PwC	-	PricewaterhouseCoopers
SOEs	-	State Owned Enterprises
KESC	-	Karachi Electricity Supply Co
NPC	-	National Population Commission
LGA	-	Local Government Authority

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

Privatisation is adopted by nations of the world for different reasons and objectives that best suit their economic situation (Essays, 2013). Privatisation is defined as the contract involving the engagement of the private sector to produce and provide good and service that was formerly publicly provided. It is generally referred to as the transferring of the public responsibility of providing certain public services to a private body or organisation, that is, the removal of state control of ownership of public enterprises (Sepehr, 2013; “In-the-Public-Interest” 2015; Investopedia 2015). Privatisation could be in different methods and scope.

The methods of privatisation approach, generally involve among others, are; asset sale of state-owned enterprises to private investor, public-private partnerships, franchise, contracting or engaging a private businessman in a contract for provision of particular service; giving vouchers to the public users of service provided in order for cost recovery; or provision of grants and affordability through subsidized ticket for cushioning effect on the poor masses from the good and services provided privately (Sepehr, 2013 & Oyebanji, 2010).



Privatisation in scope is considered as an umbrella term covering several different types of transactions, among others are the public utilities like; (electricity, water, telecommunications, railways, motorways, transportation etc.), and other infrastructure facilities like; toll expressway, airlines, finance corporations, manufacturing companies and industrial firms, steel mills, auto factories, and agro-allied industries build-operate-transfer (BOT) and various economic activities (Sepehr, 2013). However, privatisation of public utilities that have an influence on basic live of people like electricity service delivery requires detail spatial data about its physical facilities distribution network and the functional condition (Josephat et al., 2014).

Privatisation of public utilities such as electricity service delivery has been seen as a complex issue that its privatisation planning process has to be critically handled alongside with detail information of its supporting physical facilities' distribution network and functional condition (Jolaoso et al., 2013). The importance of physical facilities (Haywood, 1988) that is, electric facilities in enhancing quality electricity service delivery in the social and economic progress of people's life cannot be underestimated. Thus Ale et al., (2011) opined that consideration for such infrastructure as electric facilities, serve as the forerunner of economic development and is capable of guaranteeing effective delivery to revamp the economy and transform the nation's economy (Oisasoje & Ojeifo, 2012; Oguzor, 2011; UN 2011).

Electricity service delivery has to do with the basic need of the entire populace. Such a product (electricity service) with inherent developmental qualities deserves attention to its adequate spatial data of the distribution network and functional condition and the potential of would be investors. Hence, these issues of electrical physical facilities and the investors should be appropriately considered before its privatisation to achieving better performance (Opara, 2015; Okafor, 2015).

Thus, the electric facilities' distribution network and the functional condition, which is fundamental to quality of electricity, service delivery, needed to be properly considered at the initial stage of the privatisation planning process before the final

privatisation exercise. Privatisation is not a new concept or approach. Both the advanced and developing countries had made use of privatisation approach in some area of their public service delivery (Hussain, 2014; Sepehr 2013; Salimi et al, 2012; Gilroy; 2010; Kosar 2006). However, not all privatisation efforts have been successful in achieving their objectives. Some have even failed miserably for many reasons peculiar to individual nations where it is practised.

The implication of the above is a policy gap between the global quests to adopt privatisation policy without consideration for individual nation's peculiarities to guaranteeing an enabling environment for its success. The foregoing explained the privatisation failure in those countries and similarly the factors of poor outcomes of privatisation of electricity service delivery in Nigeria. Privatisation of electricity service delivery in Nigeria has been averred as a capitalistic economic approach in its system, position and postulation (Onwe, 2014; Nwoye, 2005).

## 1.2 **Background to the Research**

Generally Nigerian's and in particular Ekiti state people's reaction to electricity service delivery privatisation has been considered as non-performing economic approach (Ahiuma-Young et al., 2017; Oxford Business Group 2016, Okekale, 2015; Olusuyi, e.t, al., 2014; Onwe, 2014 & Okafor, 2014). The privatisation of electricity service delivery supposed to result in better performance. Why the failure of the privatisation policy is the focus of this study.

The enterprise in consideration is electricity service delivery of the power sector in Nigeria and its consequent effect in Ekiti state. The power sector comprised of three components, the generation, transmission and distribution/sale. Generation section is the electrical components that produce electrical power and could be sourced from; water, oil, coal, gas/thermal, nuclear, solar, and the wind. The electricity transmission section is the network linking the electricity generation via

transmission to the distribution network, while the electricity distribution/sale network linked the electricity transmission to consumers for sale of the unit of electricity consumed, which is the electricity service delivery.

The research focused on factors for poor performance of privatisation of electricity service delivery with Ekiti as sampled state in Nigeria. The study had an in-depth consideration for the privatisation planning process and factors of electricity service delivery components which are electric facilities' distribution network and functional condition, service provider and service quality. This research stressed that, this aspect of electricity service delivery components are fundamental to better performance of electricity service delivery privatisation. Hence, non-consideration of these fundamental factors of electric facilities functional and distribution condition before privatisation formed the basis for investigating the privatisation planning process of privatisation approach in Nigeria and its consequent effect in Ekiti State.

Embracing privatisation in Nigeria was encouraged by; the ailing state-owned enterprises, the poor socio-economic condition of the nation after the independence, the pressure from their international creditors, and an attempt to meet up with the nation's financial and economic challenges (Sayyad 1990 in Essays, 2013). The literatures affirmed that, in some countries like; Vietnam, New Zealand, the U.K., Chile, Mexico, China, Malaysia and South Africa where it is well practiced with efficiency in privatisation planning process, political will, transparency and enabling environment, advantages of privatisation have been averred as very important approach to a better medium of service delivery of basic public utilities (Peterside and Brown 2014; Government of Guyana, 1994 in Sepehr; 2013; Auger, 1999 cited in England 2011; Oyebanji, 2010; McKenzie & Mookherjee, 2002).

Nonetheless, disadvantages of privatisation have been viewed from the negative perspectives of its outcomes in the service delivery of electricity in Nigeria and in all the states. Arguing that, privatisation of electricity in Nigeria is capitalistic economic approach in its system, position and postulation (Onwe 2014). The situations and experience of the people in the Ekiti state from the reports gathered

were contrary to the progressive principle and intention of privatisation, most especially in the service delivery of electricity (Olusuyi, et, al., 2014; Peterside & Brown 2014). This is more so as the available electricity service delivery components which are, electric facilities, service provider and service quality, were in a bad condition (Batini, 2012).

Among reasons for failure as reported in the literature was in the case where the people in the community make effort to buy transformer to replace the faulty one for their neighbourhood use. They may not get the attention of the Distribution Companies (DISCOS) for the installation and to energise the transformer for use in time. In some instances, privatisation of service delivery of electricity has been found to be a failure from both the government (public sector) and the DISCOS (Onwe 2014). Worsening still, the reluctance of the distribution companies to quickly replace faulty components of electric facilities within their networks seems to have made their perception of electricity service delivery more of poor quality to customers (Etieyibo, 2011). To support the poor privatisation planning process, it was after privatisation, that the DISCOS were asked to take charge of their networks and come up with any system shortcomings and the cost of such for quality electricity service delivery provision to their customers (Opara, 2015; Okafor, 2015). The research stressed that factors of effective electricity service delivery components ought to have been considered ahead or in the course of privatisation planning process.

This research investigated the claim that privatisation planning process of electricity service in Nigeria was being hurriedly carried out with misplacement of priority (Etieyibo, 2011). This research posited that there should be consideration for sufficient spatial data and adequate information about the existing and current situation of electric facilities before privatisation. The research stressed that it should have been given the adequate due diligence procedure the enterprise deserved in the privatisation planning process. This would form an enabling fundamental background for better performance of electricity service delivery privatisation and after all, ensured an ideal situation.

The process of unbundling the Power Holding Company of Nigeria (PHCN) concluded in the year 2013 which marked the turning point in the history of electricity service delivery in Nigeria. However, the initial grossly underfunding condition of the power sector for over 20 years period had left the nation in continuous experience of the huge gap in infrastructure provision and subsequent poor facility distribution network. Hence, handing over of the companies (PHCN) to private investors is not intended to automatically transform to the stable power supply. More so that factors that needed to be considered in the privatisation process were neglected. In support of the above and citing Sambo (2013), who was the Nigeria (Vice President) and the Chairman of the National Council on Privatisation (NCP), submitted that, privatisation was not an end in itself, but need improving efficiency strategy and service delivery, hence, continuous government commitment is needed to ensure the realisation of the privatisation objectives. This was consistent with Etieyibo (2011) in his research and also in the submission of Oyebanji (2010), that, privatisation is not just a direct solution for the public sector enterprises problems of poor performance. This study asserts in its gap analysis that there were non-consideration of certain factors that are germane to better performance of electricity service delivery privatisation. This lack of initial preparation in the privatisation policy had been the lapses the literature failed to realise in all their reactionary submissions.

This non-precautionary approach in Nigerian system of privatisation policy was noted from the worsened condition of past service deliveries of most of the commercialised public utilities. For example, Nigerian Telecommunications Limited (NITEL) and Nigerian Railways Corporation (NRC) all depreciated in performance after privatisation. Similarly, National Electric Power Authority (NEPA) now Power Holding Company of Nigeria (PHCN), also worsened in performance after privatisation (Subair and Oke 2008; Adeyemo and Salami, 2008) and are still troubled with difficulties and totally inadequacy in quality service delivery (Kalejaiye et al., 2013). The reason behind this is the lapse in privatisation planning process this research examined with the aim to proffer practicable privatisation planning process as an improvement to implementation of privatisation of public utility in Nigeria.

The background of the Benin Electricity Distribution Company (BEDC) giving its profile as the 4<sup>th</sup> largest distribution company having the 3<sup>rd</sup> largest of households under its coverage shows that it has the requisite potentials to deliver effective electricity service, (BEDC, 2014). BEDC claimed high experience in collaboration with other competent investors and reputable technical/financial partners like Vigeo Holdings Limited, Africa Finance Corporation (AFC), Global Utilities Management Company Limited (GUMCO) and NDPL INFRA Limited (NDPL) is enough a potential qualities for effective electricity service delivery. However, the reason why it failed in its operation to deliver effective electricity service delivery is the lapse in the privatisation planning process which is the focus of this research. This was non-consideration of those factors that were fundamental to better performance of electricity service delivery privatisation.

The research discovered two fundamental issues among others responsible for the failure of electricity service delivery privatisation failure. These are; firstly, non-consideration for the factors of proper due diligence procedure of electric facilities before privatisation and in the privatisation planning process. Secondly, there were inadequate spatial data detailing the electric facilities' factors of distribution network and functional condition in relation to the individual customer.

This research stressed that before privatisation, the ability of the available electric facilities' carrying capacity, that is, the state of the functional conditions and distribution network of electric facilities such as; (transformers, electric poles, wires and cables) which would facilitate quality electricity service delivery within the residential neighbourhood, are not mostly put into consideration, hence the reaction to the privatisation poor outcomes by the following authors like (Erskine 2014; Oisasoje & Ojeifo, 2012; Ale et al., 2011; Oguzor, 2011; Calderon, 2009; Egbetokun, 2009; Adeyemo & Adeleke, 2008). This lack of consideration for this fundamental factors of electricity components account for poor performance electricity privatisation and its consequent effect in Ekiti state.

### 1.3 The Statement of Problem

The findings from several literatures show the failure in the privatisation of electricity service delivery privatisation in the study area and in Nigeria as a whole (Olusuyi et al., 2014; Akhalumeh & Ohiokha, 2013; Franklin & Gabriel, 2014; IseOlorunkanmi, 2014) and most affected among others are the household users. This has led to unreliable electricity supply, continuous power interruption, and in some part of the study area were total power outages, and poor quality of life.

The reasons for failure of electricity service delivery privatisation emerged from the poor conduct of privatisation planning process of electricity service delivery. The planning process failed to put into consideration the necessary factors of electricity service delivery components. The factors considered in the context of this research are presented in Table 1.1 and further expatiated in Table 1. 2. Authors in their various studies although averred the advantages of privatisation of State Owned Enterprises (SOEs) being subjective and determined in relation to some sectors but hardly emphasise the fundamentals of privatising those public utilities that have direct impact and consequence on the basic life of the public. This study stressed that, the consequence of privatising the like of the finance corporations, manufacturing/industrial sector and other public facility services which has no direct influence on individual life and social welfare in general may not be that critical (Bayliss & McKinley, 2007; Birdsall & Nellis 2002; Newbery & Pollitt 1997).

Hence, this research stressed that, the public utilities service delivery of the sort of electricity has direct influence on the basic quality of life and social wellbeing of the entire citizenry. As such, there is need for adequate privatisation planning process that takes into cognisance the fundamental factors must be taken into consideration. In the literature it was observed that, in the entire of West Africa, the level of public utilities service delivery remains poor, with significant power (electricity service delivery) failure hindering economic development just as in Nigeria (Pavanelli, 2015) and in Ekiti state as an emerging urban centers where both the household quality of life and economic activities are being frustrated by incessant

power outages, (Olusuyi, et. al., 2014). Highlighted below were the issues and factors considered under the problem statement in this research.

Table 1.1: Research problem highlight

<b>Research Problem Highlighted</b>	<b>Problem Causes Itemised</b>
Inefficiency privatisation planning process	(i) Lack of proper due diligence (ii) Inadequate spatial data,
Poor Electric facilities functional condition of electricity service delivery components	(i) Transformer (ii) Electric Poles (iii) Wire and cable (iv) Service delivery quality (v) Service provider manner
Poor electric facilities, distribution network	(i) Transformer (ii) Electric Poles (iii) Wire and cable

The problem of privatisation problem resulted from poor privatisation planning process that lack consideration for the factors of proper due diligence procedure and adequate spatial data of the components of electricity service delivery. These component are the facilitating physical facilities which are; transformer, electric poles, wire and cable, service delivery quality and service provider.

Several literatures in a reaction to poor electricity service delivery, failed to conclude in their studies that these electricity components and their factors ought to have been considered ahead of privatisation or in the privatisation planning process. The focus of this study is that, the true state of electric facilities' functional condition of the whole enterprise (PHCN) was not thoroughly assessed before the implementation of the privatisation. These electric facilities were in a state of despair



as observed by Bräuninger (2013) & Batini (2012), due to long time disinvestment in electricity facilities (Etieyibo, 2011).

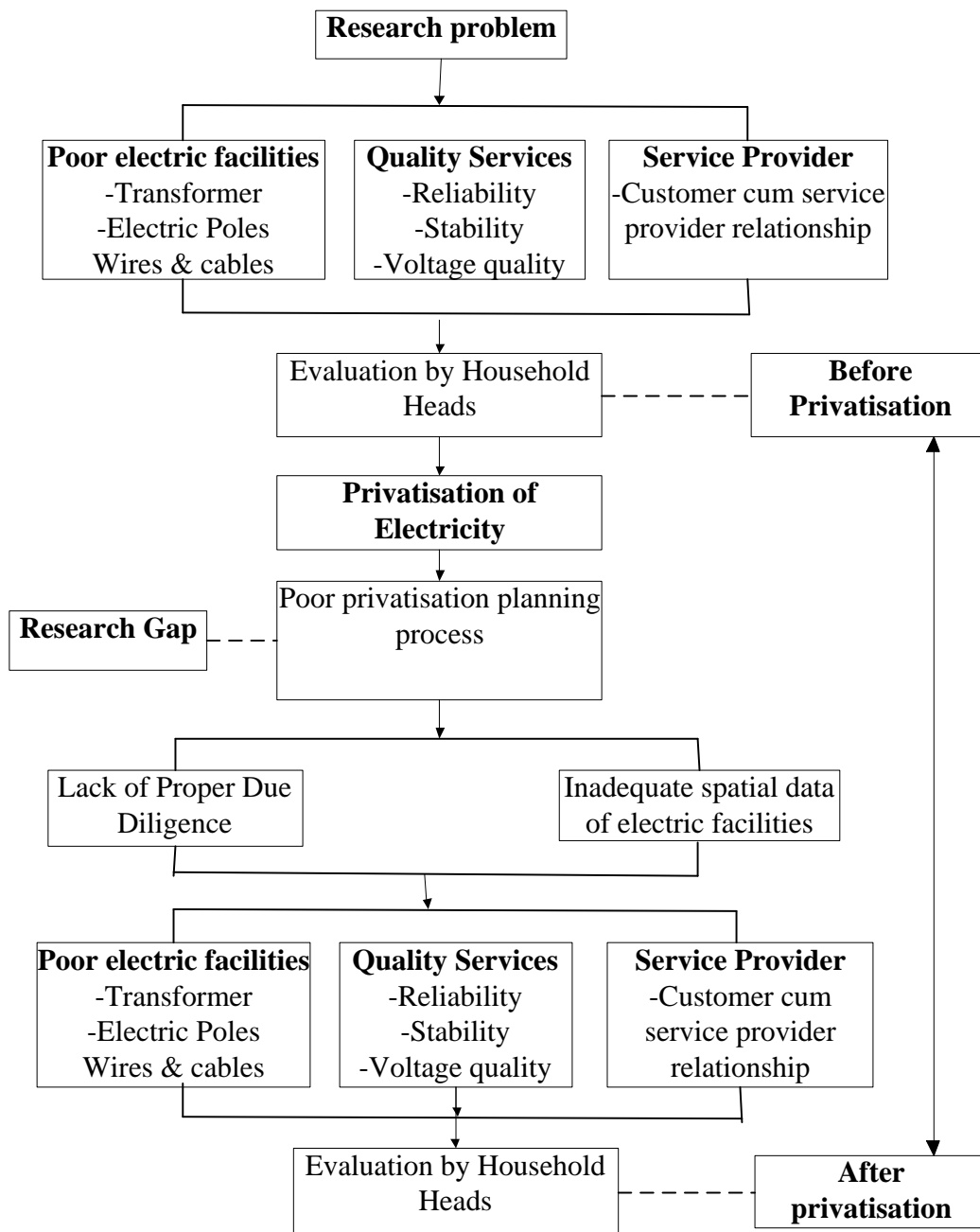
Besides, this research in its gap discovered non-consideration of the factors of electricity service delivery spatial data as fundamental to performance of privatisation while in the literature authors like, Ayara (2012), Echewofun, (2015); IseOlorunkanmi (2014) Josephat, et al (2014); Erskine (2014); Wächter (2013); Hull et al. (2012) ascribed importance to spatial data in their studies. However, these studies in their scope, method and conclusion did not link their submissions of importance of availability of spatial data to what ought to have been considered before privatisation or in the privatisation planning process. In the context of this research, this lapse was considered as another factor for poor performance of electricity service delivery privatisation. Hence insufficient of factors of spatial data, detailing the available facilities in relation to the users was considered as part of the negligence in the privatisation planning process.

In Ekiti state, the household perception of the electricity service delivery privatisation has not recorded an appreciable performance in comparison with the situation before privatisation, as averred by Awogbemi (2015); Oyelami, and Adewumi (2014); Olusuyi et, al, (2014); Franklin & Gabriel (2014); Akhalumeh & Ohiokha (2013) & Etieyibo (2011). In the context of this research, contributing factors to poor performance of electricity service delivery privatisation was due to non-consideration for adequate factors of due diligence procedure in privatisation planning process. Summarily, considered factors in the context of this research were presented in Table 1.2.

Table 1.2: Problem statement factors outlined

<b>Factors of Research Problem</b>	<b>Evaluating Parameters</b>	<b>Stakeholders</b>	<b>Research Instrument</b>
privatisation planning process	<p>1, Detail information about the condition of electric facilities and the potentials of the preferred investors. Factors considered were: - i). Facility problem, ii). Due diligence problem, and iii). Technical/ financial problem.</p> <p>2, Availability of spatial data; that relate facilities to individual household users. Factors considered were: - i). Population and spatial data problem and ii). Physical Planning problem.</p>	Government relevant agencies and BEDC management Staff	interview
Electric Facility functional condition	<p>a) Electric Facility functional condition</p> <p>These are latent factors of the facility functional condition such as facility; Capacity, Effectiveness, Coverage, Voltage/current, quality, Arrangement, Location and Safety.</p>	Household heads	Questionnaire
	<p>b) Service delivery quality</p> <p>This is the quality of electricity service such as; Awareness and notification of power outage, Timeliness and Promptness of attention. Quick restoration of supply, communication Medium electricity service condition generally</p>	Household heads	Questionnaire
	<p>c) Service provider manner.</p> <p>Quick action to customer call Receptiveness to customer</p> <p>Responsiveness and friendliness to customer</p> <p>Concern and sympathy for customer</p> <p>Competence and sincerity to service</p> <p>Decency and integrity in service delivery</p>	Household heads	Questionnaire
Electric Facility Distribution Network	The spatial dimension of the facility such as; size, coverage, location, actual position and distance.	Household heads	Questionnaire

The fundamental conception of this current research’s statement of the problem is shown in Figure 1.1.



**Figure 1.1** The research problem

### 1.3.1 **Research Questions**

- i. Why the factors of due diligence and spatial data of electric facilities were not adequately considered in the privatisation planning process?
- ii. Why does performance of electric facilities functional condition and service quality not improved with the advent of privatisation?
- iii. Why does existing electric facilities' distribution network performance not improved with the advent of privatisation?
- iv. How is practicable privatisation planning process developed for better electric service delivery privatisation performance?

## 1.4 **Research Aim and Objectives**

### 1.4.1 **Research Aim**

To evaluate factors for poor performance of privatisation approach to electricity service delivery in Nigeria

### 1.4.2 **The Research Objectives**

- i. To investigate why factors of due diligence and spatial data of electric facilities not adequately considered in the privatisation planning process.
- ii. To assess factors for poor performance of electric facilities functional condition and service quality with the advent of privatisation.

- iii. To evaluate factors for poor performance of existing electric facilities distribution network with the advent of privatisation.
- iv. To recommend an improved practicable planning process for better electric service delivery privatisation performance.

## 1.5 Hypothesis Development

This section of the research develops two sets of hypotheses as to the performance evaluation of privatisation of electricity service delivery. The first set of hypotheses were on electric facilities functional condition and level of performance while the second set of hypothesis were on electric facilities' spatial distribution and level of performance

### 1.5.1 Hypotheses on Electric Facilities Functional Condition and Level of Performance

It has been argued in the literature, from economic viewpoints, that privatisation policy is the preferred alternative approach to the revitalization of the ailing state-owned enterprises to enhance quality service delivery, among other advantages, of public utilities, like electricity supply as opined by Flynn and Asquer, (2013) & McKenzie & Mookherjee. (2003). Similarly in the literature, the support for privatisation of public utilities has also been contested by some authors (Tahir, 2014; Adebamigbe, 2007, & Johnson 2007), especially in the electricity service delivery of the power sector, and supported by Tetteh, (2013), Etieyibo (2011), & IseOlorunkanmi (2014).

It is also averred in the literature that the outcomes of privatisation of the electricity supply in Nigeria does not seem as solution-centered approach to the problem of electricity supply (Oyelami, & Adewumi 2014; Olusuyi et, al 2014; Akhalumeh & Ohiokha, 2013; Franklin & Gabriel, 2014; IseOlorunkanmi, 2014), drawn from the negative reactions of the electricity consumers (Okafor, 2014; Onwe 2014). Hence, these research hypotheses were based on the claim of the literature on the actual performance of the privatisation approach to electricity service delivery from the consumer's perception. The research hypothesis tested compared the performance of electric facilities before and after privatisation in order to verify the reasons for the claim by the author's viewpoints from the literature on electricity service delivery.

The research hypotheses testing were divided into two. In the first part which is on electric facilities functional condition, the research tested 5 sub hypotheses, while the second part under electric facilities distribution network 3 sub hypotheses were tested. The hypotheses formulated shall be analysed statistically and tested using appropriate statistical tools for each item.  $H_0$  as used here represents null hypothesis while  $H_1$  indicates alternative hypothesis.

- a)  $H_01$  Factors for functional performance of transformer is not dependent on the advent of privatisation

$H_11$  Factors for functional performance of transformer is dependent on the advent of privatisation

- b)  $H_02$  Factors for functional performance of electric poles is not dependent on the advent of privatisation

$H_12$  Factors for functional performance of electric poles is dependent on the advent of privatisation

- c)  $H_03$  Factors for functional performance of wire and cables is not dependent on the advent of privatisation

$H_13$  Factors for functional performance of wire and cables is dependent on the advent of privatisation

d) H<sub>04</sub> Factors for excellent performance of electricity service provider is not dependent on the advent of privatisation.

H<sub>14</sub> Factors for excellent performance of electricity service provider is dependent on the advent of privatisation.

e) H<sub>05</sub> Factors for electricity service quality does is not dependent on the advent of privatisation.

H<sub>15</sub> Factors for electricity service quality does is dependent on the advent of privatisation.

### 1.5.2 Hypothesis on Electric Facilities' Spatial Distribution and Level of Performance

Electrical facilities and their network of distribution have been averred in the literature as having a symbiotic relationship leading to their better performance of its service delivery (Farahani et al, 2014; Arabani, & Farahani, 2012). This has to do with the spatial distribution of the electrical facilities such as; the transformer, electric poles, wire and cable. The way in which the network system of these facilities within the neighbourhood of each community has been posited which is fundamental to their effective performance of service delivery (Terouhid et al, 2012; USAID, 2005). This research stressed that spatial data about electric facilities' distribution network was not considered before venturing into the privatisation process which accounts for the failure of electricity service delivery. USAID, (2005), observation in the literature shows that;

*“In most regions in Nigeria, the distribution network is poor, the voltage profile is poor and the billing is inaccurate”* (Emodi & Samson, 2014:223).

This was corroborated in the concluding submission of KCWS, (2013:121) that,

*“The reforms established appear linked to successive decisions without an overall approach with a global vision. They are caused mainly by a ripple effect. It is regrettable that institutional reforms are not sufficiently understood in terms of their spatial consequences”.*

In this regard, the research compared the situation of distribution network of electric facilities before and after privatisation by hypothesising the significant influence/relationship of the distribution network of these electric facilities for better performance of electricity service delivery. Based on the above background, the following hypotheses were derived;

a) H<sub>0</sub>1 Factors for performance of existing distribution networks of transformer is not dependent on the advent of privatisation

H<sub>1</sub>1 Factors for performance of existing distribution networks of transformer is dependent on the advent of privatisation

b) H<sub>0</sub>2 Factors for performance of existing distribution networks of electric poles is not dependent on the advent of privatisation

H<sub>1</sub>2 Factors for performance of existing distribution networks of electric poles is dependent on the advent of privatisation

c) H<sub>0</sub>3 Factors for performance of existing distribution networks of wire and cables is not dependent on the advent of privatisation

H<sub>1</sub>3 Factors for performance of existing distribution networks of wire and cables is dependent on the advent of privatisation

## 1.6 **Expected Outcome of research**

The expected outcomes of the research were as follows; firstly, it is expected that there should be ahead of the implementation of the privatisation policy a comprehensive privatisation planning process carried out by the relevant government



officials and stakeholders. This would secondly lead to embarking on thorough due diligence procedure for getting first-hand information about the condition of available electric facilities. Thirdly, this would make possible for effective monitoring, proper management and adequate maintenance of electric facilities. The fourth expected outcome of this research would make privatisation policy making and decision taking easier in order to actualize the purpose and the objectives of reliable electricity service delivery with privatisation approach. Finally there would be probable assurance of quality electricity service delivery, if the right step is taken in adherence to all necessary stages of privatisation planning process.

### 1.7 Study Area

The study area, Ekiti State, is a part of the 36 states in the Federal Republic of Nigeria. The State was among the six states that were created in October 1996, according to Nigeria elites (2013). It is located in the south-western part of Nigeria. It is positioned amid longitudes  $40^{\circ}51'$  and  $50^{\circ}451'$  east of the Greenwich meridian and latitudes  $70^{\circ}151'$  and  $80^{\circ}51'$  north of the Equator. Ekiti covers areas of, 6,353 km<sup>2</sup> and has a population density of 440.9/km<sup>2</sup> (National Population Commission webs, 2015). The state is situated inside the tropics. It is positioned toward southern side of Kwara and Kogi State, eastern part of Osun State and bounded in the eastern and in the southern by Ondo State (Agbelade et al., 2015).

Ekiti state as well as all other old states in the country has not met with corresponding required basic public service delivery, most especially in electricity service delivery, this makes almost all the states in Nigeria not viable economically (Aminu & Onimisi, 2014; Odiegwu, 2012). The foregoing scenario characterised the generally poor condition of electric facilities system as posited by, Batini (2012) and the consequent poor electricity service delivery all over the country (Okekale, 2015; Onwe, 2014 & Okafor, 2014)

## 1.8 Scope of the Research

This research focused on the evaluation of the performance of privatisation approach to electricity service delivery in Nigeria in order to identify the shortcomings of the privatisation approach. Hence, an understanding of the privatisation planning process and other factors like due diligence procedure on the components of electricity service delivery and adequate spatial data of the electric facilities significant to better performance of electricity service delivery privatisation.

Due diligence in this research is considered as a factor. Other factors considered alongside were electric facility problem, and investor's technical/financial problem. The study evaluated electricity service delivery based on the concept and attributes of due diligence framework which involved three 'issues that is, the State duty to protect household electric users (human rights); the service provider responsibility to respect customers; and the need for greater access by affected customers to effective remedies (Ruggie, 2008). Each of these issues addresses different actors.

The first issue is concerned with the obligations of government to recognize the task of electricity service delivery. Seek information through initial thorough investigation of the available electric facilities to identify their influence on service delivery and the impact and perception of the household users.

The second issue is concerned with the responsibilities of Investor (DISCOS) that should carry out all the necessary inventory of the asset and liability of the enterprise they intend to buy. In order to deliver quality electricity service to the household satisfactorily.

While finally, the third issue focuses on the rights of individual (household electricity users) to be treated with reference in the process of electricity service

delivery. This bordered on service provider cum household heads electricity user's relationship (Bonnitcha, & McCorquodale, 2013).

Other factors considered as part of the scope of this research were electricity service delivery components. These were electric facilities, which are transformer, electric poles and wire and cable. Among other components considered in the context of this research were the electricity service delivery quality and electricity service provider manners.

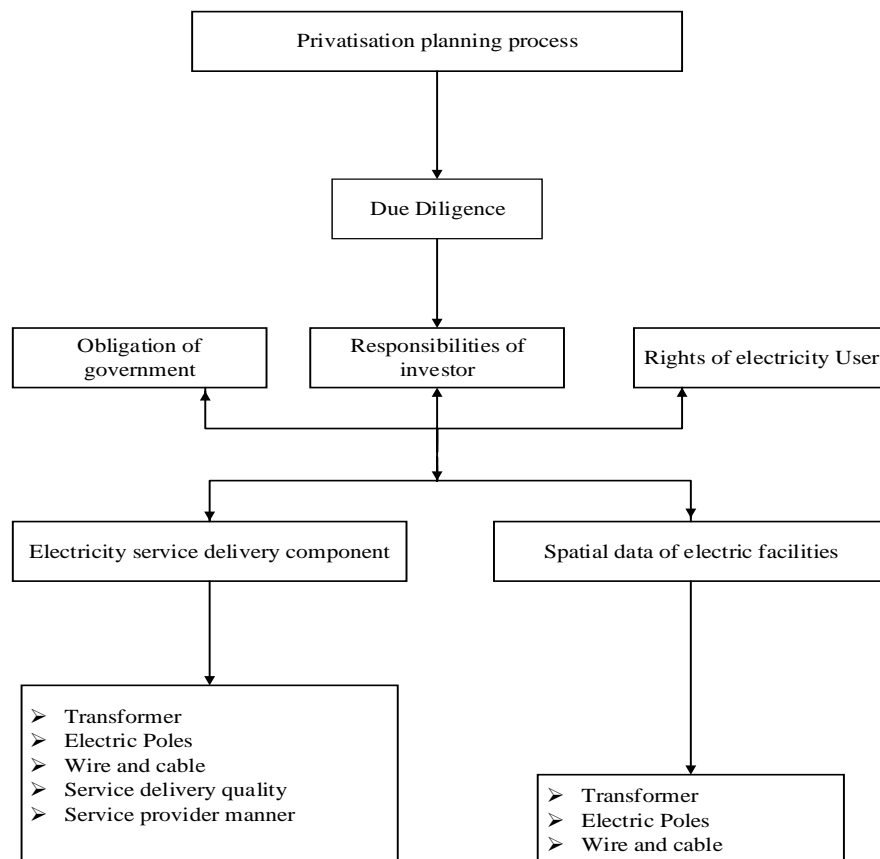
Finally, the spatial data of electric facilities were considered in the research to ascertain the availability and adequacy. The importance of spatial data was stress in this research and its usefulness as source of information to enhance appropriate decision making in course of privatisation planning process. The electric facilities considered relevant here were the transformer, electric poles and wire and cables (Todayinenergy, 2014 & PwC, 2012).

The research viewed the element of the electric facilities' distribution network and functional condition from the physical planning perspective employing the parameters of physical planning principles of facilities' distribution network and functional condition and the implications for service quality to the consumers. The research analyse the need for due diligence procedure approach of proper inventory and spatial data about these facilities be considered in the privatisation planning process to ensure an enabling environment for eventual better performance of electricity service delivery under privatisation.

The parameters of due diligence procedure derived from the literature, has been measured by adequate consideration for detail spatial data about the attributes of the electric facility such as (network system, availability of map detailing facilities' spatial data, availability of adequate record of household electricity consumption). The reason why the poor performance of privatisation was non-consideration of the parameters/factors itemised in Table 1.2 in the conduct privatisation planning process. This identified loophole is the research focus. The

study stress that, there is need for adequate consideration of this factors as they are fundamental requirements for an enabling environment, for effective performance of the operation of the service provider and service quality.

The research further explores the household heads perceptions and evaluation of the performance of electricity service delivery components within their neighbourhood and the effect on the electricity service delivery before and after privatisation. This was carried out in order to establish if electricity service delivery privatisation is of any better performance. The measuring variables of electricity components as derived from the literature were presented in Table 1.2. The research scope is presented in Figure 1.2.



**Figure 1.2** The research scope

## 1.9 Research Significance

The influence of electricity service delivery on the basic life of the masses necessitated the need for detail information about its physical facilities to enhance its quality service delivery. Hence, the consideration of the distribution network and functional condition of the physical component of the facilities should form the first stage of the privatisation planning process. This would actually examine the fundamental problem of electricity service delivery in Nigeria in order to suggest a practicable solution. However, Failure in this regard would not only affect the industries depending on it services (Baroud et al., 2014; Chiejina, 2012:1) but would lead to poor quality of service to the customers.

Hence, the significance of this research would benefit specifically, the people in the study area and the nation at large. Firstly it would serve as the, background for economic development of the study area. Secondly, it would be capable of guaranteeing effective delivery to revamp the economy and transform the nation's economy. Thirdly, the research significance would lead to effective service delivery of electricity to the customers. The literature had averred that efficiency is the most desired quality by the customers and by efficiency publicly or privately provided service are assessed (Chandrashekhar, 2007). This is consistent with Cleveland that;

*“The experience and perception of the customer are the yardsticks for service improvement, and this customer cum service provider relationship are not often considered by the government”* (Cleveland, 2007: 60).

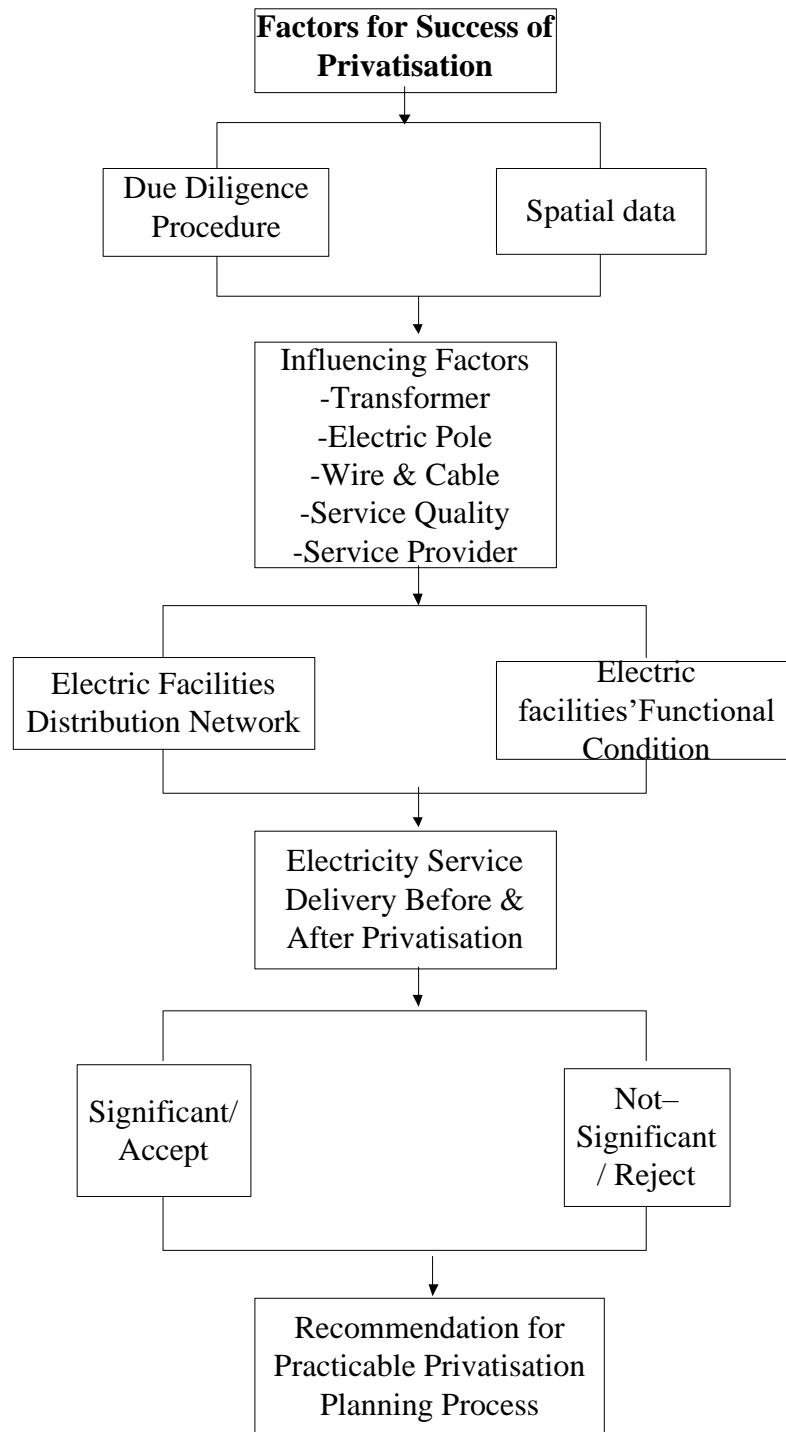
The approach of this research on factors for poor performance of privatisation of electricity service delivery assumed a new dimension through an investigation of electricity service delivery privatisation. This research is hence filling the gap by considering factors that were had barely been examined by the previous studies. Meanwhile the research conceptual framework further expatiated upon this issue.

### 1.10 Conceptual Framework

Privatisation policy from the literature is an economic policy being adopted by various nations of the world to better their economy in one way or the other (Hussain 2014; Sepehr 2013; Salimi et al., 2012; Gilroy 2010 & Kosar 2006). The literature had also averred the privatisation approach to enterprise like; manufacturing companies, corporate and financial institutions as different from privatisation approach to public utilities (Adeyemo & Adeleke, 2008) like electricity service delivery.

The negative influence of privatisation being an economic policy and profit oriented over the masses had made the policy non-consistency with the African socio-economic background; it is acclaimed a widespread failure in many developing nations (Pavanelli, 2015). This research considered absence of due diligence and adequate spatial data of the electricity service delivery components as the factors for poor privatisation of electricity service delivery in Nigeria and its effect in the Ekiti State the study area. Many of these past studies like, Peterside & Brown, (2014) & McKenzie & Mookherjee, (2002), were only reacting to the eventual outcomes of the policy for the adverse effect it has on the customers. This research differs from these studies in that these factors ought to have been considered earlier before adoption of privatisation so as to prevent its failure and the current negative effect on the public.

For this reason, this research argued the need for a practicable privatisation planning process of electricity service delivery that is well supported with detail information about electric facilities that facilitate the quality of electricity service delivery (Nawaz-ul-Huda, 2012). Hence, the provision of ideas for the construct of the research conceptual framework was drawn from a comprehensive literature reviewed on this issue. The research viewed the failure of electricity service delivery from poor privatisation planning process of privatisation that lack consideration for the fundamental factors. Relevant among the factors that needed to be considered in the privatisation process are consideration for proper due diligence procedure and adequate spatial data. The Conceptual Framework is shown in Figure 1.3.



**Figure 1.3** Conceptual frameworks

### 1.11 Structure of the Thesis

The content of this research started with Chapter 1 which comprised Introduction, and background to the research, statement of the problem, research aim, objectives and research questions of the research followed by the hypothesis formulation. Research gap, theoretical underpinning, significance, expected outcome, Study area all formed the contents of chapter one.

Chapter two is a literature review on privatisation concepts and connotations, its adoption and practice from the global perspective and the factors for success in electricity service delivery in some selected countries and its failure in others. The privatisation planning process was also discussed in the chapter. Chapter three discussed issues on why privatisation was adopted in Nigeria. The factors for poor performance of electricity service delivery privatisation with specific focus of the research on the electric facilities' distribution and functional condition aspect of electricity service delivery. It also featured the existing situation of electricity service delivery before privatisation and its current situation now under privatisation.

Chapter four presents adopted methodology of this research. The methodology was mixed mode approach. And the statistical method adopted were interview for qualitative approach, while descriptive analysis, Wilcoxon test, correlation and multiple regression using SPSS version 22 and AMOS SEM for the quantitative analysis. Chapter five of this research presents data analysis interpretation and discussion based on the qualitative data gathered through interview. Chapter six presented the data analysis result, interpretation and discussion of the quantitative data gather from the household head using questionnaire. Finally, chapter seven presented attainment of the research questions and objectives from the research findings, research recommendations and contribution of the research to body of knowledge. The research limitation and future research formed the end of discourse in this chapter. Figure 1.3 presents the structure of this research.



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