Outsourcing Practice And Performance Of Mobile Telephone Service Providers In Nigeria

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The aim of this study is to find out the effects of outsourcing practice on performance of mobile telephone providers. Purposes of the study are to investigate if outsourcing practice of mobile providers result in unemployment and also to find out the key performance indicators for assessing their performance. This study is a survey research that used questionnaires to collect data from mobile telephone engineers, technicians, project managers and customers. Forty (40) questionnaires were sent to mobile operators staff who were selected by random sampling technique from their payrolls while sixty (60) were sent to various customers who were selected by convenience sampling technique. Results indicate that all outsourcing vendors have taken full responsibility of all outsourced jobs and most operators do not have new job roles for staff whose functions are outsourced. Average revenue per user, minutes of use and receiving few queries on network are KPIs for assessing performance of mobile telephone providers while their performance do not depend on subscribers’ churn rate, active subscribers, subscribers complaints and activations. Implications of study to policy makers in government and mobile telephone operators is the need to entrench Service Level Agreements into outsourcing contracts while findings of study support outsourcing theory. Conclusions are outsourcing practice contributes to high unemployment and downsizing for mobile providers firms and consequently contributes to country’s unemployment problem which may adversely affect the economy. Most mobile telephone providers in Nigeria have performed well in revenue, usage and network quality and not by subscribers’ PKIs. Recommendations are mobile operators are to employ competent vendors for their outsourcing jobs as to enhance performance while their profits are to be ploughed back into their business as to improve and increase present level of infrastructural facilities in use. They should also improve their subscriber’s KPI’s so as to reduce churn rates and congestions currently witnessed in their networks.

**Keywords:** Outsourcing practice, performance, telephone service providers, Nigeria

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INTRODUCTION
Several studies on outsourcing (Butler, 1991; Densai, 2012; Handfield, 2012; Thompson, 2012; Hayes, 2012; Baiye, 2012) have all confirmed that outsourcing is a business strategy in which one or more of a company’s business process is contracted out to an outside service provider with the intention of reducing operating cost and focusing on core competencies of the firm. In today’s business environment it is important for most organizations to identify their core business competencies and focus on these for their performance. This can assist organizations in outsourcing services to achieve the desired objectives of the organization. However, the view of Butler (1991) indicates that outsourcing is the shifting of a function either in whole or in part from a main organization to a third party. The current trend in most industries in Nigeria as of now especially in manufacturing, construction and telecommunication industries is the outsourcing of their non-core functions to external organizations for their effective management. According to Baily et al. (1998) as cited in Yurong (2004) that outsourcing is a contractual relationship between an external vendor and an enterprise in which the vendor assumes responsibility for some or more of the business functions of this enterprise. This phenomenon of outsourcing is gaining grounds in Nigeria especially in telecommunication industry where recently communication licenses were granted to three operators of ECONET, MTN and MTEL in 2001 and these organizations needed to embark on aggressive roll out of infrastructures to support the telecommunication services provided for the country. This drive necessitates the need for operators to consolidate on their core mobile telephone services provisions while outsourcing the provisions of necessary infrastructures to support these services to external vendors. This provides assistance to these firms to focus more on customer satisfaction and new services creations. Outsourcing practice no doubt has some effects on the performance of these mobile telephone operators. In Nigeria, studies on effects of outsourcing practice on performance of mobile telephone providers has been low and hence the present study investigates the effects of outsourcing practice on the performance of mobile telephone providers in Nigeria. Objectives of this study are to investigate if outsourcing practice of mobile providers result in unemployment and also to find out the key performance indicators for assessing their performance. The study is significant in a number of ways as it provides current literature on outsourcing practice, it reveals the types of outsourcing strategies in use and it also creates awareness on performance of mobile telephone providers employing outsourcing in the country to enhance their performance. This study also contributes to outsourcing literature on performance of mobile telephone providers and it also provides an insight into effects of outsourcing practice on performance.

Concept of Outsourcing
Outsourcing concept emerged from American terminology which means “outside resourcing”. The terminology was also used in economies to imply utilization of external sources to develop a business (Troaca and Bodislav, 2012; Biggso, 2012, Wikipedia 2012, Aubuchon 2012). In addition, studies of Densai (2012), Dana
(2012), Handfield (2012), Thompson (2012), Baiye (2012), and Hayes (2012) also all indicate that outsourcing can be defined as the contracting out of a business process, which an organization may have previously performed internally or has a new need for an independent organization from which the process is purchased back as a service. Meaning of outsourcing encompasses both foreign and domestic contracting which include off-shoring which is described as a company taking a function out of their business and relocating it to another country. According to Baiye (2012) outsourcing also involves transferring of the employees and assets involved to the outsourcing business partner. Desai (2012) indicates that outsourcing is becoming popular and refers to it as a business strategy in which a company acquires a product or service rather than producing it. Dana (2012) also confirms that outsourcing is a way of getting additional support to one’s team or company by inviting external contractors to undertake works that have been done by in- house staff for which they possess better competencies for. Handfield (2012) in his own contribution to outsourcing strategy distinguishes between outsourcing and sub-contracting in a business to mean that outsourcing involves substantial restructuring of a particular business activities which include transferring of staff from a host company to a specialist outsourcing firm while sub-contracting is hiring of contractors for particular types of works in business and consequently developing long-term relationships with such firms to complement the company’s capabilities. The concept of outsourcing has been around for sometimes now and is presently used by mobile telephone operators in Nigeria.

Types of Outsourcing Strategies in Practice
Different types of outsourcing strategies have been identified in Literature (Outsource Online, 2011; Dana, 2012; Harward, 2013; Power et al., 2013; Wikipedia, 2013a; 2013b; & Hafeezrm, 2013). There are some areas of commonalities between these categorizations of outsourcing types. According to Harward (2013) it is indicated that outsourcing business models are complex and hence there are four types of outsourcing strategies in use. They are a times referred to as engagement models for sourcing. The first two types are classified as Business Process Outsourcing (BPO) engagements while the last two types are known as outtasking models. BPO engagement models are described as comprehensive and selective while outtasking are licensing and contracting. Engagements of BPO are known to be complex, longer in duration, integrated across functional process areas and also are considered as the most strategic to the business. Furthermore, outtasking refers to models that are less complex, involving fewer processes and limited to functional areas. They are also more tactical and more labour oriented. Comprehensive BPO involves developing a strategic long term relationship with a supplier or vendor for which both parties are working to commit dedicated resources in form of people and finance to the deal. BPO contracts involve Master Services Agreement (MSA), Multiple Service Level Agreements (SLA) and many Statements of Works (SOW). Selective BPO has been described to involve complex engagement but somehow less than comprehensive deal.
because of reduced integration of functional processes. In selective BPO the client can engage a vendor to manage multiple processes within one functional area but not processes across functional areas. Selective BPO contracts also involve MSA, SLA and SOW’s but definitely less complicated because of fewer processes involved. Licensing agreement is an outtasking deal that involves sourcing a tangible asset such as technology. Agreement for technology can involve software as a service contracts (Saas). If implementation and setting up cost are high it may take several years before actualization whereas if both costs are low it takes few months to attain. Licensing outsourcing are general purchase orders that have defined terms and a unit price.

Contracting outsourcing as indicated by Harward (2013) implies a contractor being awarded a contract to perform a task and he is paid by hour/day/week/month. In contracting outsourcing a vendor manages a project inform of consulting or instructional design that are tactical and whose complexity and breath are limited. It is also transactional as the relationship ends as the activity ends. Contracting outsourcing are also local purchase orders with defined terms of activities for a unit price of each deliverables. Unit prices are prices per time or price per project term. These classifications of types of outsourcing will be drawn upon in this study.

Power et al. (2013) indicates that there are wide assortment of outsourcing categories and models in use. Each of these categories and models has their strength and weaknesses and management concerns. Power et al (2013) categorizes outsourcing into location, depth and works. Categorization by location indicates the location where the outsourcing work is carried out as either on site or off-site. On site work involves having members of the vendor’s team carrying out their work within the premises of the client organization. Off-site work is where the vendor’s team carries out their outsourcing work at the vendor’s location. Within the off-site arrangements work can be done on shore, near shire and off-shore. Onshore is where a vendor conducts outsourcing work within the same country as the client. Such onshore deal can involve medical or financial information where there are regulations preventing such works to be performed abroad. Near shore outsourcing arrangement involves moving work outside the country to neighboring locations. These are known to involve cost advantages as no major cultural differences exists between these two locations, cheaper travelling costs are involved and also low communication costs are involved. Offshore outsourcing arrangement involves sending an outsourcing work to countries that are distinct from the client’s country.

Furthermore, Power et al. (2013) categorizes outsourcing types by depth level where individual, functional or competency arrangements are used. Individual outsourcing involves outsourcing specific positions out of the organization. Such positions such as analyst work, web designers and public relations personnel can be outsourced by an organization to an extend vendor. Individual outsourcing has been described as the simplest format of outsourcing in which a client organization is into hiring of single staff function into their organization inform of full time consultant when they
need expertise in a specific area for a specific period of time. Moreover, functional outsourcing is when an individual functional area such as cost centers, accounts payable, purchasing, receiving and payroll are outsourced to some vendors. This can be considered as high order version of individual outsourcing. Competency outsourcing involves outsourcing activities that control how products or services flow through the organization in form of unbound logistics, technology development and human resources management. This has been described by Power et al. (2013) as higher order construct to functional outsourcing as it involves outsourcing of multiple functions. Clients must have great deal of trust and confidence on the vendor to deliver the project.

In addition, outsourcing types can also be classified based on nature of work as process-oriented or project-oriented work. Process oriented work usually involves outsourcing of a well structured, standardized and documented process like payroll functions while project-oriented work involves outsourcing of a unique and non-routine, unstructured and non-standardized work like software development. Process-oriented outsourcing is easily managed as it involves a structured process which the organizations understand fairly well. Project oriented outsourcing is laborious to manage as their processes are not easily understandable and it involves greater handling risk. Their managers may not understand the necessary information or have deep experience about the process. Power et al. (2013) classifications of categories of outsourcing types is detailed more than that of Harward (2013) categorizations that are based on engagement models. Such categorizations are explored for this study. Outsource Online (2011) also documented different outsourcing types in use. Three classes of categorization are also drawn up as Technology services outsourcing (TSO), Business process outsourcing (BPO) and knowledge process outsourcing (KPO). Technology process outsourcing is explained to involve technological innovations of electronics, commerce, network infrastructures application and telecommunication as well as website developments. These are functions that internal staff can perform but the organization decides to outsource for specialist vendors to deliver better service. Outsource online (2011) categorization is relevant to this present study and agrees with Power et al. (2013) views on outsourcing categorization. Moreover, Wikipedia (2013a, 2013b) both classified outsourcing types into Business Process Outsourcing (BPO) and Knowledge Process Outsourcing (KPO). These categorizations are also in agreement with Harward (2013), Power et al. (2013) and Outsource Online (2011) categorizations of outsourcing types. Hafeezrm (2013) has described project management as a source of some outsourcing jobs which involves sub-contracting of activities like machine fabrication and installation, product design, manufacture and even marketing to some third party vendors. These new outsourcing strategies are described as Build-Own-Operate-Transfer (BOOT) where a client outsources a project to a vendor for which the vendor funds the project with her finances. The vendor carries out these activities in her own name and operates the project when completed and takes tariff on the use of the project. Other forms of BOOT in use include
Build-Operate (BO), Build-Operate-Transfer (BOT), Build-Own-Operate (BOO) and others are in use. All the foregoing discussed outsourcing strategies are relevant to this study as mobile providers use these strategies in their outsourcing practice in the country.

Outsourcing Practice and Performance of Mobile Telephone Service Providers

Several studies have investigated the effects of outsourcing practice on performance of firms (Elmuti, 2003; Khaki and Rasidi, 2012; Jiang et al., 2012; Arvanitis and Loukis, 2012; Smith, 2012). The study of Elmuti (2003) investigated the perceived impact of outsourcing on organizational performance in the USA. This study examined the relationships between outsourcing strategies and organizational performance in 1500 organizations widely spread in the USA. It further assessed the performance of outsourcing strategies in use by these organizations as well as their organizational performance. Productivity (cost savings, efficiency and cycle times), quality (customer service and percentage of defects), satisfaction and market performance (market share, return on investment, return on sales) are organizational performance variables investigated in this study. This study is relevant in terms of these performance measures for the organizations except that most of these organizations investigated are not mobile telephone providers. Among the organizational performance measures used by this study this present study draws on quality by measuring performance of mobile telephone providers with network quality.

The study of Khaki and Rasidi (2012) investigated outsourcing and its impact on operational objectives and performance of Iranian telecommunications firms. Operational objectives are considered as cost reduction, developed quality, flexibility and better service. Performance measures of the firms are also considered as financial and non-financed factors. This study further examines whether improved organizational functions of firms is directly related to outsourcing. Among the results of this survey study is that outsourcing could lead to better financial and non-financial performance and services. This study is relevant as it examines influence of outsourcing on performance in telecommunication industry but not on mobile telephone operators and unfortunately this study has not really explain in details what are the financial and non-financial factors considered for performance that this present study can draw upon. Similarly, the study of Jiang et al. (2006) empirically investigated the effect of outsourcing on firms’ operational performance in the USA. The firms’ performance metrics include cost-efficiency, productivity and profitability. Results of this study reveal that outsourcing can improve a firm’s cost efficiency but does not improve both productivity and profitability of the firms. None of these performance metrics are used in the present study. In the same vein, Arvanitis and Loukis (2012) examine outsourcing and firm performance in both Swiss and Greek countries. This study analyzed the factors determining the firms’ propensity to outsource various processes as well as impact of outsourcing on firms’ innovation performance. This study is a comparison of Swiss and Greek firms’ performance. The study concludes in terms of impact of outsourcing on performance that outsourcing tends to enhance process...
innovation but has weak relationship with productivity. This study is also relevant to the present study as it examines the effects of outsourcing on firm performance but not on mobile telephone operators and the performance metrics of process innovation and productivity are not also utilized for this study. The present study utilizes network quality, results of job losses and unemployment as its performance metrics. The study of Smith (2012) also investigated outsourcing and supply chain performance among mobile telephone service providers in Kenya. This study established the relationship between outsourcing and supply chain performance among mobile phone service providers. Supply chain performance was measured from operation system responsiveness, logistic process responsiveness, supplier network responsiveness and competitive advantage. Results of the study indicate that supplier network responsiveness has the greatest impact on outsourcing while operating system responsiveness has the greatest negative effect on outsourcing. Supply chain system responds rapidly to charges in product volume demanded by customers and to changes in product mix demanded by customers. Further results show that supply chain effectively expedites emergency customer orders, rapidly reconfigures equipment to address demand changes, rapidly changes manufacturing processes to address demand changes and rapidly adjusts capacity to address demand changes. However, some degree of relevance of Smith (2012) research to the present study can be found in the relationships between outsourcing and supply chain performance for mobile telephone service producers. The major differences between these two studies have been in performance metrics and the geographical locations where both studies took place. Smith (2012) has adopted four performance metrics for the mobile telephone service producers in Kenya from responsivenes of operation, logistics, supplier and comparative advantage, whereas the present study draws on results of outsourcing in job losses and unemployment and use of performance indices to measure performance of telephone service providers in Nigeria.

In investigating the effects of outsourcing practice on performance of mobile telephone service providers in Nigeria the reports of Consultant Value Added (2010) and Hoque (2012) are benchmarks for determining the performance metrics used for this study. The report of Consultant Value Added (2010) suggests 100 KPI's for mobile telecommunication operators for which this study draws on. Fourteen (14) key performance indicators in the form of subscriber, usage, revenue, coverage and speed, market share and incremental performance are suggested for use. In addition, further KPIs suggested include operational efficiency, marketing, quality, green and sustainability, financial and valuation, country’s telecom sector KPIs, telecom tower and spectrum efficiency. In total this report documented 100 KPIs. The present study only draws on quality and usage of KPIs. From the quality KPI performance variables such as call set up time (CST), call set up success rate (CSSR), network availability and network quality an were drawn while for usage KPI variable such as monitoring and routine checks were explored for this study. The 100kpis suggested in this report are not totally utilized for this study as it was difficult to access most of this information from the mobile telephone
operators investigated in this study. The performance metrics used for this study can be summarized as call set up time (CST), call-setup success rate (CSSR), network availability, network quality, monitoring and routine checks, customer satisfaction with services provision, job losses and unemployment.

RESEARCH METHODS

Literature review was conducted as to find out the types of outsourcing strategies in practice and effects of outsourcing practice on performance of mobile telephone service providers. Two structured questionnaires were designed to collect information from the personnel of these firms who have been involved in managing their network operations as well as involved in taking decisions on behalf of the firm and also from mobile telephone service providers’ customers who had recently requested for one type of services or the other from these providers. This study took place in Lagos state in Nigeria. Population of the study consisted of telecommunication engineers, technicians, project managers, implementation managers, finance and accounting officials, sales and marketing executives who were employees of Globacom, Mtn, Zain now Airtel as well as their customers. Also inclusive in this investigation are some customers from Etisalat, and Starcomms mobile telephone providers. This study is a survey research and random sampling technique was used for selecting the sample from the mobile telephone service providers’ payrolls while convenience sampling technique was used for selecting customers participate in the study. In all forty (40) questionnaires were sent out to the various customers whose locations were traced through telephone addresses left with the operators. Twenty, (20) questionnaires were retrieved from the mobile telephone staff while thirty-six (36) questionnaires were also retrieved from the customers which were used for the data analysis. Descriptive statistical tools such as Tables and percentages as well as inferential statistical tools such as chi-square tests were used in taking decisions about effects of outsourcing practice on performance of mobile telephone service providers in Nigeria.

RESULTS AND DISCUSSIONS

Effects of Outsourcing Practice on Performance of Mobile Telephone Operators

Results of the effects of outsourcing practice on performance of mobile telephone operators in terms of job losses and staff unemployment are presented in Table 1. From the results in Table 1 it is shown for vendors taken full responsibility of outsourced functions from client’s staff that the calculated chi-square value ($X^2_{\text{cal}}=11.73$) is quite higher then the tabulated value ($X^2_{\text{tab}}=7.37$) hence the result is significant. This implies accepting the alternative hypothesis which indicates that vendors have taken full responsibility of their outsourced jobs. This suggests that client’s staff whose functions are outsourced to vendors may either be laid off or deployed to some other functions in the organization. This result agrees with Economy Magazine (2012) recent report in Nigeria that Airtel outsourced their call centers to two Indian firms who are Spanco Channel BPO and Tech Mahindra by relieving the Nigerian outsourcing.
firms and their employees of their jobs and also creating unemployment.

**Table 1: Chi-square test results of effects of outsourcing practice on performance of firms**

<table>
<thead>
<tr>
<th>Variable</th>
<th>X^2cal.</th>
<th>D.F</th>
<th>X^2tab</th>
<th>P-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendors taken full responsibility of outsourced functions</td>
<td>11.78</td>
<td>2</td>
<td>7.37</td>
<td>0.00</td>
<td>S*</td>
</tr>
<tr>
<td>Client staff given new jobs after functions are outsourced to vendors</td>
<td>0.73</td>
<td>2</td>
<td>7.37</td>
<td>0.69</td>
<td>NS</td>
</tr>
</tbody>
</table>

Similarly, results in Table 1 demonstrate that for clients staff given new jobs after their functions are outsourced the calculated chi-square value (X^2cal=0.73) is lower than the tabulated values (X^2tab=7.37) hence the result is not significant. This involves accepting the null hypothesis which states that most mobile telephone operators do not have new jobs roles for their staff whose functions are outsourced. This quickly suggests that the staffs are either laid off or remain unemployed. This may result in staff downsizing for these operators. Both results strongly support unemployment and downsizing of the mobile telephone staffs which show that outsourcing of jobs to vendors can lead to job losses and high unemployment in the country.

**Key Performance Indicators for Assessing Performance of Mobile Telephone Providers**

Results of the key performance indicators (KPI) for assessing performance of most mobile telephone providers are summarized in Table 2. Results from Table 2 indicate that key performance indicators such as Average revenue per user, minutes of use and recording more or less network queries the calculated chi-square values (X^2cal=36.15, 6.36, 7.68) are quite higher than the tabulated values (X^2tab=16.00, 5.02) hence the results are significant. This implies accepting the alternative hypothesis which states that average revenue per user, minutes of use and receiving few queries on network are KPI for assessing performance of the mobile telephone providers. These results agree with Consultant Value Added (2010) stipulations of using fourteen KPI of subscribers, usage, revenue, coverage and speedy market share, incremental performance, operational efficiency, marketing, quality, green and sustainability and others for assessing performance of mobile network operators. Most mobile telephone operators in Nigeria have performed well in revenue, usage and network quality.
Table 2: Key Performance Indicators (KPI) for Assessing Performance of Mobile Telephone Providers

<table>
<thead>
<tr>
<th>Performance indicators</th>
<th>X^2_cal</th>
<th>D.F.</th>
<th>X^2_tab</th>
<th>P-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average revenue per user</td>
<td>36.15</td>
<td>7</td>
<td>16.00</td>
<td>0.00</td>
<td>S*</td>
</tr>
<tr>
<td>Rate of subscriber churn</td>
<td>2.57</td>
<td>1</td>
<td>5.02</td>
<td>0.10</td>
<td>NS</td>
</tr>
<tr>
<td>Number of active subscribers</td>
<td>0.47</td>
<td>1</td>
<td>5.02</td>
<td>0.49</td>
<td>NS</td>
</tr>
<tr>
<td>Minutes of use</td>
<td>6.36</td>
<td>1</td>
<td>5.02</td>
<td>0.01</td>
<td>S*</td>
</tr>
<tr>
<td>Subscribers complaints</td>
<td>0.47</td>
<td>1</td>
<td>5.02</td>
<td>0.49</td>
<td>NS</td>
</tr>
<tr>
<td>Number of subscriber activations</td>
<td>0.47</td>
<td>1</td>
<td>5.02</td>
<td>0.49</td>
<td>NS</td>
</tr>
<tr>
<td>Record of many/few network queries</td>
<td>7.68</td>
<td>1</td>
<td>5.02</td>
<td>0.02</td>
<td>S*</td>
</tr>
</tbody>
</table>

From other results in Table 2 it is shown that for KPI's such as rate of subscriber churn, number of active subscribers, subscriber complaints and number of subscriber activations the calculated chi-square values (X^2_cal=2.57, 0.47) are quite lower than the tabulated values (X^2_tab=5.02) hence the results are not significant. This involves accepting the hypotheses which states that rate of subscriber churn, number of active subscribers, subscriber complaints and number of subscriber activations are not the KPI's for measuring performance of mobile telephone providers. These results suggest that these factors are not the main KPI’s for measuring performance of mobile telephone operators in Nigeria. Most operators in Nigeria may not have performed well in terms of subscribers especially churn rate, active subscribers, subscriber complaints and activations despite the unprecedented customer growth witnessed in the country.

Currently, issues of network congestions and poor network services are being contended by most subscribers for which operators must react by upgrading their infrastructural network equipment to cope with these challenges emanating from this growth.

**IMPLICATIONS OF THE STUDY FOR POLICY, THEORY AND PRACTICE**

This study has several implications in the areas of policy making, theory of outsourcing and its practice. For policy makers in government and in mobile telephone organizations in Nigeria and other developing countries there is a need to entrench service level Agreements (SLA) into outsourcing contracts for their effective management and for performance of most mobile telephone operators organizations. The present boom in mobile telephone businesses should be exploited
by the Nigerian Communication Commission (NCC) to further attract heavy foreign investments into this sector of the Nigerian economy that can lead to economical transformation of the country. Also, the findings of this study provide convincing evidences that support the outsourcing theory which stipulates relationship between outsourcing practice and supply chain performance for mobile telephone service providers. For outsourcing practice there is need to employ competent vendors for future outsourcing jobs who would put in their best for the success of the entire outsourcing process.

CONCLUSIONS

On the basis of findings emanating from this study it can be concluded that outsourcing practice contributes to high unemployment and downsizing for mobile providers firms and consequently contributes to country’s unemployment problem and can adversely affect the economy of the country. Most mobile telephone providers in Nigeria have performed well in revenue, usage and network quality and not by subscribers’ PKIs. This study strongly recommends to all mobile operators currently operating in the country to imbibe the culture of employing competent vendors for their outsourcing jobs and should re-invest or plough back most of their profits into their businesses as to improve their present infrastructural roll out. These will enhance good quality network services throughout the country as well as easy accessibility in rural areas of the country. It is also strongly recommended to mobile providers to improve their subscriber’s KPI’s so as to reduce churn rates and congestions currently witnessed in their networks.

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