

## **Information and Communication Technology (ICT) on Revenue Collection by Kenyan Counties**

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### **Abstract**

For sustainable growth and poverty reduction to take place in African countries specifically in Kenya and more so in Kenyan counties, it is essential that a coherent, dynamic and domestically driven capital accumulation, intermediation and Computerization process take root. Its also true that Taxation which is one entry point for improving governance on the continent has received little attention, Tax revenues collection are relatively poor in most counties in Kenya; taxes have often not translated into improvements in public service delivery. Objective of this research establishes the mode of strengthening domestic resource mobilization by utilizing ICT, it also determines a review on information systems theories and hence examines the impact of management information system on revenue collection in Kenyan counties. The research utilizes ICT in relation to Technological theories hence setting the base on Empirical review such as : Technology Acceptance Model Theory, Unified Theory Of Acceptance And Use Of Technology, Theoretical Implementation Process-Theory, Theory

Of Reasoned Action , Theory Of Planned Behavior (TPB), Theory Of Technical Acceptance Model, Agency Theory , Control Theories And Cultural Theories.

**Keywords :** ICT ( Information and Communication Technology) ,IT(Information Technology), Revenue Collection, Revenue Collection System.

## **1.0 Introduction**

The need for additional revenue is substantial in many developing countries, but improving revenue mobilization has importance beyond that. Requirements for relieving poverty and improving infrastructure are substantial: achieving the Millennium Development Goals, for instance, may require low-income countries to raise their tax-GDP ratios by around high percentage points (United Nations, 2005).

Strengthening domestic resource mobilization offers many potential benefits to Kenya economies : As it will reduce the dependency on external flows, thereby reducing one of the sources of damaging volatility in resource availability, and reduce vulnerability to external shocks; it gives Kenyan counties greater policy space, increases their ownership of the development process as well as strengthening their income capacity(United Nations, 2005) . But the quality of measures also matters: increasing revenue by further taxing readily compliant taxpayers can worsen distortions and perceived inequities; conversely, reducing reliance on trade taxes can bring real structural gains that outweigh short-term revenue difficulties.

More fundamentally still, the centrality of taxation in the exercise of state power means that more efficient, fairer, and less corrupt tax systems can spearhead improvement in wider governance relations Its also true that Taxation which is one entry point for improving governance on the continent has received little attention, Tax revenues collection are relatively poor in most counties in Kenya; taxes have often not translated into improvements in public service deliver. Revenues collections are relatively low in most counties in Kenya; raising additional tax revenue is further constrained by weak State legitimacy, as taxes have often not translated into improvements in public service delivery.

Aim of this research is derived from Information and communication technology (ICT) as an infrastructure on revenue collection by Kenyan counties , this Research utilizes ICT in relation to Technological theories setting the base on Empirical review : Technology Acceptance Model (TAM) Theory, Unified Theory of Acceptance And Use of Technology (UTAUT), Theoretical Implementation Process-Theory, Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Theory of Technical Acceptance Model (TAM), Agency Theory , Control Theories and Cultural Theories. The study takes a great consideration at Information and Communication Technology (ICT) as an infrastructure for revenue collection by Kenyan Counties , it is essential that a coherent, dynamic and domestically driven capital accumulation, intermediation and mobilization process take root .

There are forty seven counties in Kenya with each charged with the responsibility of revenue collection within their boundaries. Most of the revenue collected is either wasted due to lack of proper data bank, recovery system, proper records or poor ways of revenue collection by use of manual methods e.g. issuing of receipts manual to confirm payment but with no clear

records due to unscrupulous employees issuing counterfeit receipts. This is a major drawback in the growth and development of these counties.

**Objective:** The objective of this research establishes the mode of strengthening domestic resource mobilization by utilizing ICT, it also determines a review on information systems theories and examines the impact of management information system on revenue collection in Kenyan counties.

This research considers critical actions that need to be undertaken in order to lay a basis of Kenya moving to a Knowledge Society and positioning herself as a regional ICT hub. Developing quality ICT infrastructure, integrating and securing information infrastructure is key.

Its also true that Taxation which is one entry point for improving governance on the continent has received little attention, Revenues collection are relatively poor in most counties in Kenya; taxes have often not translated into improvements in public service delivery. Despite decades of reform and foreign aid, the quality of governance in most African countries remains poor. Colonial powers did not leave behind strong, indigenous institutions that could tackle the development challenges of modern state. Infrastructure needs are also extensive, and there are climate challenges to address.

Advanced economies are increasingly focused on improving their support of these revenue mobilization efforts. In this context strengthening revenue mobilization to a Proper Revenue collection system will reduce dependency on county external flows, thereby reducing one of the sources of damaging volatility in resource availability, and reduces vulnerability to external shocks; it gives African countries greater policy space, increasing their ownership of the development process as well as strengthening their State capacity (IMF, 2010). Successful endeavors to increase the importance of domestic resources in the development process depend on the State's ability to improve the domestic economic environment, creating important positive externalities, (Fakile. A.S,2008).

According to IMF, (2010a), the development of quality ICT human resources is a pre-requisite to the development of a viable ICT sector to integrate Revenue collection system. It ensures that ICT development, implementation and exploitation are an integral and sustainable component of development specifically for Kenyan government and more so the county government in Kenya. This is necessary because aid and other unpredictable and volatile external flows are problematic, even when well-intentioned and have disproportionately financed developmental needs in the poorest counties.

Interest in enhancing revenue mobilization in developing countries is increasing. Most developing countries are emerging from the crisis with their fiscal prospects broadly intact (IMF, 2010), As such there is need to utilize an MIS reporting that provides information regarding a company's major processes, such as internal controls, operating procedures and audit preparation. With these systems in place, managers can improve workplace safety, decreasing expenses and maintain client relationships. Moreover, MIS is one of the important functions of management which plays an important role in providing information that is required for crucial decision making which directly affects the performance of the organization (Murthy, 2006). Due to a fundamentally changing external environment, several

organizations have decided to change their IS strategies by adopting application software packages rather than in-house development (Hong & Kim, 2002).

Resources for development can be mobilized from domestic or external sources. For most counties, the bulk of resources for development are mobilized domestically rather than externally. The opposite is often the case for African countries that are highly dependent on aid, resource based revenues or other external flows. There is a crucial difference between domestic and external resource mobilization, not only in origin but more importantly in application of the resources in question.

It would be difficult if not impossible to meet domestic developmental objectives principally through mobilization of external resources. Integrated ICT infrastructure is a key foundation necessary for the successful of domestic resources foundations and its pillars. It seeks to provide the integrated infrastructure backbone required to enable cost effective delivery of ICT products and services such as revenue collection for counties, businesses and other stakeholders.

According to Ein-Dor and Segev (1978), an Information System (IS) becomes a management information system (MIS) when it is applied to improve management by directors of the organization. This system can increase the performance of the management. MIS is a collection of manpower, tools, procedures and software to perform various business tasks at various levels in the organization (Tripathi, 2011).

## **1.2 Management Information Systems As An Infrastructure To Revenue Collection**

Management Information systems is a general term for the computer systems in an enterprise that provide information about its business operations. It's also used to refer to the people who manage these systems. Typically, in a large corporation, "MIS" or the "MIS department" refers to a central or centrally-coordinated system of computer expertise and management, often including mainframe systems but also including by extension the corporation's entire network of computer resources. The basic purpose of any information system is to help its users get a certain type of value from the information in the system, regardless of the type of information that is stored or the type of value desired (Norton, 2006).

County governments are so important to the citizenry both at the national and county levels, they act as growth engines and centers of development. They offer services such as educational, commercial, health facilities etc. they also offer employment hence boosting the country's economy . Corruption indicators are strongly associated with low revenue (Attila, Chambas, and Combes, 2008 Indeed corruption functions like a tax itself, and likely a particularly regressive one as are other governance indicators (weak rule of law, political instability).

The fact that ICT has a critical role in driving the economic, social and political development of Kenya as espoused in Vision 2030; and it is a roadmap to a knowledge economy and society that will lead to real socio-economic growth. It is therefore imperative to address key challenges that may hinder the ICT sector from playing its rightful role in national, County and sub-counties development. It will be of great importance to the county leadership i.e. the governor and his deputy, county ministers, members of county assembly (MCA) and county

employees in general to know the importance of the adoption of ICT and its tools (MIS ) towards revenue collection and the extent to which MIS can lead increased revenue collection in the county.

In Kenya, county governments haven't fully realized the impacts of the huge sums of revenues they lose or do not collect due to lack of appropriate MIS that deal with revenues. There exists a poor co-ordination between various departments in county governments as a result the impact of revenue collection has been minimal. County employees charged with the collection of various forms of revenue collections are not guided by coherent revenue policies this in turn makes it difficult to establish the effect of revenue collection on county's growth. As counties start to take shape, their survival and growth stages, main focus has been on their development appropriateness which needs appraisal so as to establish the extent to which they are demand and value adding (United Nations, 2005).

### **1.3 Need For Ict To Drive Revenue Collection**

Interest in enhancing revenue collection in developing countries is increasing, this affect Kenya as a country and more so its counties fall suit. Most developing countries are emerging from the crisis with their fiscal prospects broadly intact (IMF, 2010a), but with many still facing a fundamental need to raise more revenue from their own tax bases. Achieving the Millennium Development Goals, for instance, has been suggested to require increasing domestic revenues in low-income countries (LICs) by around 4 percent of GDP (United Nations, 2005). Infrastructure needs are also extensive (IMF, 2010a), and there are climate challenges to address. Advanced economies are increasingly focused on improving their support of these revenue mobilization efforts. In this context the G-20 leaders called in November 2010 for the Fund, with others, to report on key issues in strengthening revenue mobilization.

The pillars of Devolution government is to setup ICT hub which will drive the county government towards an E-Government services, which aims at ensuring provision of e-Government information and services as key to improving productivity, efficiency, effectiveness and governance in all key sectors. ICT as a Driver of Industry, which aims at transforming key Vision 2030 . economic sectors to significantly enhance productivity, global competitiveness and growth; and the third pillar is Developing ICT Businesses that can produce and or provide exportable quality products and services that are comparable to the best in the world.

Integrated ICT infrastructure, which seeks to provide the integrated infrastructure backbone, required enabling cost effective delivery of ICT products and services to Kenyans; and the third foundation is integrated information infrastructure which aims at improving the quality of e-Government services and enable the country to transition to a knowledge-based society.

### **1.4 Strategies Required For Revenue Collection**

Improving revenue administration is essential for enhanced and fairer revenue mobilization and for wider governance improvement; though success is hard to evaluate. It may be too much to assert that "in developing countries, tax administration is tax policy" (Casanegra de Jantscher , 1990): tax policy needs to utilize the ICT HUB, the framework within which the revenue administration must operate. Kenya has emerged as an African ICT hub, in innovative

technologies particularly in the mobile sector. The implementation of mobile transfer services from in 2007 has put Kenya on the world map. Currently, all the four mobile operators and two licensed content service providers (Mobikash Africa and Mobile Pay) are offering mobile money transfer services. Furthermore, with mobile phones collaborating with the banking sector, new mobile banking products have emerged.

In addition, most bills from public and private institutions ranging from electricity, water, insurance, travel and NHIF and NSSF contributions among others can now be paid via mobile phone platforms. In practice, the distinction between administration and policy is often hard (and pointless) to make. Arnold (2008) concludes that property taxes are least damaging for growth, followed by consumption taxes, the personal income tax (PIT), and the corporate income tax (CIT): this is as theory suggests, with taxation of capital income having a potentially strong impact on investment.

Raising revenue is the core objective of any tax system, but revenue is not the sole concern. Although most County Governments have not yet started developing their ICT infrastructure, NOFBI can be used to connect the National Government to the County Governments and interconnect the latter to share data and information, The spending needs of developing countries are substantial, and both greater and, ultimately, more sustained than can be met from foreign assistance. In low-income countries (LICs) the revenue imperative is stark.

## **2.0. Literature Review**

### **2.1.1 Technology Acceptance Model (Tam) Theory And Revenue Collection System**

This research utilized the Technology Acceptance Model (TAM) for revenue collection system since it is an information systems theory that models how users come to accept and use a technology. The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it, notably :Perceived usefulness (PU) - This was defined by Fred Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance" .Perceived ease-of-use (PEOU) - Davis defined this as "the degree to which a person believes that using a particular system would be free from effort" (Davis 1989).

The TAM has been continuously studied and expanded-the two major upgrades being the TAM 2 (Venkatesh & Davis 2000 & Venkatesh 2000) and the Unified Theory of Acceptance and Use of Technology (or UTAUT, Venkatesh et al. 2003). A TAM has also been proposed in the context of e-commerce with an inclusion of the effects of trust and perceived risk on system use(Venkatesh & Bala 2008) . The study will be a case study design; as such it will provide an intensive, descriptive and holistic analysis of revenue collection in Kenyan Counties .(Bagozzi, Davis & Warshaw 1992). Several researchers have replicated Davis' original study (Davis 1989) to provide empirical evidence on the relationships that exist between usefulness, ease of use and system use (Adams, Nelson & Todd 1992; Davis 1989; Hendrickson, Massey & Cronan 1993; Segars & Grover 1993; Subramanian 1994; Szajna 1994).

Venkatesh and Davis extended the original TAM model to explain perceived usefulness and usage intentions in terms of social influence (subjective norms, voluntariness, image) and cognitive instrumental processes (job relevance, output quality, result demonstrability, perceived ease of use). The extended model, referred to as TAM2, was tested in both

voluntary and mandatory settings. The results strongly supported TAM2 (Venkatesh & Davis 2000).

Criticism Of Technology Acceptance Model (Tam): TAM has been widely criticized, despite its frequent use, leading the original proposers to attempt to redefine it several times. Criticisms of TAM as a "theory" include its questionable heuristic value, limited explanatory and predictive power, triviality, and lack of any practical value, as for revenue system, its practical means .i.e. as per this research Taxation is an integral part of countries' development policies, interwoven with numerous other areas, from good governance and formalizing the economy, to spurring growth through, for example, promoting activities such as export activities system for revenue collections. (Chuttur 2009) Benbasat and Barki suggest that TAM "has diverted researchers' attention away from other important research issues and has created an illusion of progress in knowledge accumulation.

Furthermore, the independent attempts by several researchers to expand TAM in order to adopt it to the constantly changing ICT and systems environments has led to a state of theoretical chaos and confusion" (Benbasat & Barki 2007). While this research does not attempt a quantification of tax gaps, it provides an identification of the ones that are most relevant in Kenyan county government. This is a necessary basis to evaluate current and potential actions that the central Kenyan government may undertake to support tax revenue mobilization and collection by use system for revenue collections in developing countries and Kenya as a whole, hence adoption of TAM theory has to be tested.

In general TAM focuses on the individual 'user' of a system, with the concept of 'perceived usefulness', with extension to bring in more and more factors to explain how a user 'perceives' 'usefulness', and ignores the essentially social processes of IS development and implementation, without question where more technology is actually better, and the social consequences of IS use. Both TAM and TAM2 account for only 40% of a technological system's use.

### **2.1.2 Unified Theory Of Acceptance And Use Of Technology (Utaut) And Revenue Collection System**

Unified theory of acceptance and use of technology (UTAUT) is a technology acceptance model formulated by Venkatesh and others in "User acceptance of information technology: Toward a unified view". The UTAUT aims to explain user intentions to use a system, Revenue collection system and subsequent usage behavior, in this research the UTAUT theory is used to exemplary acceptance and use of technology for revenue collection system in the county government. The theory holds that four key constructs: 1) performance expectancy i.e. with the counties and sub-counties, 2) effort expectancy, by the auditing sector 3) social influence, by citizen and 4) facilitating conditions; i.e the system tools, terms within the counties / sub-counties :( procurement, training, facilitation) the first three being direct determinants of usage intention and behavior, and the fourth a direct determinant of use behavior.

The theory was developed through a review and consolidation of the constructs of eight models that earlier research had employed to explain information systems usage behavior (theory of reasoned action, technology acceptance model, motivational model, theory of planned behavior, a combined theory of planned behavior/technology acceptance model, model of personal computer use, diffusion of innovations theory, and social cognitive theory).

Subsequent validation by Venkatesh et al. of UTAUT in a longitudinal study found it to account for 70% of the variance in behavioral intention and about 50% in actual use.

Considering the UTAUT theory usefulness on this research of Revenue collection system, among other things, taxation: provides county government with the funding required to build the infrastructure on which economic development and growth are based; creates an environment in which business is conducted and wealth is created; shapes the way government activities are undertaken; and plays a central role in domestic resource mobilization, as stated in UTAUT theory, performance expectancy i.e. with the counties and sub-counties, Venkatesh et al.2013.

According to UTAUT theory on second key constructs, effort expectancy the; taxation shapes the county environment and hence promotes the whole nation so as to boost international trade and investment. Certainty and consistency of tax treatment, the avoidance of double taxation, and efficient tax administration are all important consideration for business. Low levels of domestic resource mobilization are believed to be caused by low levels of income, demographic factors and the structure of financial markets, which are generally difficult to influence in the short to medium term.

**Van Raaij and Schepers** criticized the UTAUT as being less parsimonious than the previous Technology Acceptance Model and TAM2 because its high  $R^2$  is only achieved when moderating key relationships with up to four variables. They also called the grouping and labeling of items and constructs problematic because a variety of disparate items were combined to reflect a single psychometric construct.

### **2.1.3 Theoretical Implementation Process And Revenue Collection System**

A theoretical implementation process was identified by Ibrahim (2007) such that it is suggested that there is an explicit linkage between factors and systems implementation stages, this research utilize the theoretical Implementation Process to explain the Revenue system. The case for African countries that are highly dependent on aid, resource based revenues or other external flows. There is a crucial difference between domestic and external resource mobilization, not only in origin but more importantly in application of the resources in question.

To simplify, domestic resources are better placed to meet domestic development needs. It would be difficult if not impossible to meet domestic developmental objectives principally through mobilization of external resources. In response to pressures from government policies, and to various social and economic factors (Anderson et al, 1999), counties will need Information Technology (IT) as a core facilitator of new strategic directions. For example, the Australian Vice Chancellor's Committee (AVCC) created the Core Australian Specification for Management and Administrative Computing (CASMAC) steering committee in 1991 (AVCC, 1996).

According to Colenso (see Castka et al, 2001), the preconditions to high performance are such things as purpose, empowerment, support and objectives, with characteristics being things such as interpersonal skills, participation, decision making, creativity and managing the external environment. Arnett et al (2002, p90) say that emotions, for example pride, have

been linked to high quality service delivery and employees ‘going out of their way’ or ‘beyond the call of duty’.

Tilly (1992) argues that; where, instead of simply taxing coercively, rulers were motivated to bargain over taxation, state financing and public policy with the people who controlled large amounts of capital, states tended to become more capable, especially in war, and more accountable and responsive to citizens (Tilly, 1992). There are several remarkable pointers to the universal importance of taxation for state-building. First, the state “s capacity to raise taxes is closely linked to its ability to deliver good policies and it is suggested that tax-raising is a good proxy indicator of overall governance capability (Arbetman – Rabinowitz and Johnson, 2007).

Revenue collection system implementations in county government in Kenya have been to integrate different administrative functions into a more systematic and cost effective approach to gain a strategic advantage. The integration of administrative functions in the county government sector spans the integration of stock holders administration, human resource management, facilities management, and financial systems that have in the past been supported by separate legacy systems (Zornada and m Velkavrh, 2005). The main advantages of Revenue collection system for county government are (1) improved information access for planning and managing the institution, (2) improved services for the faculty, students and employees, (3) lower business risks, and (4) increased income and decreased expenses due to improved efficiency (King 2002).

#### 2.1.4 Theory Of Reasoned Action (Tra) And Revenue Collection System

The theory originates from social psychology, and it is a special case of the Theory of Planned Behavior (TPB) (Ajzen, 2010). Fishbein and Ajzen (1975) developed TRA to define the links between the beliefs, attitudes, norms, intentions, and behaviors of individuals. The theory assumes that a person’s behavior is determined by the person’s behavioral intention to perform it and the intention itself is determined by the person’s attitudes and his or her subjective norms towards the behavior. The subjective norm refers to “the person’s perception that most people who are important to him think he should or should not perform the behavior in question” (Ajzen, 2010). Figure below, explains the framework of theory of reasoned action.

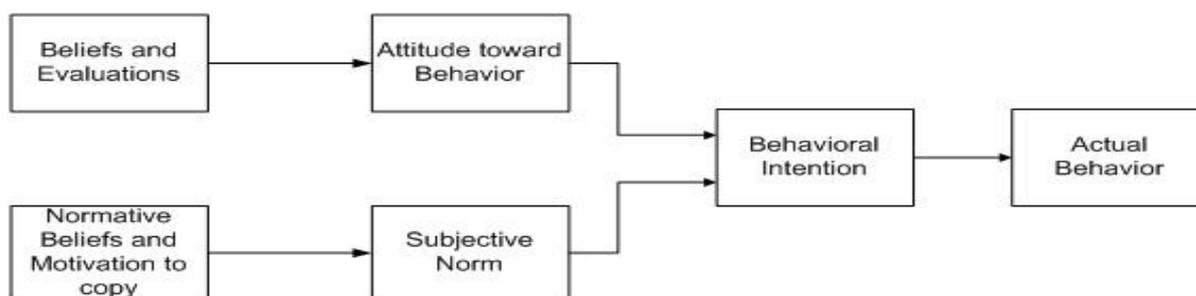


Fig1: The framework of theory of reasoned action

Source: (Fishbein & Ajzen, 1975)

In these studies TRA was used to compare it with TAM. For example, Karahanna et al. (1999) examined users' pre-adoption and post-adoption beliefs and attitudes by combining aspects of TRA. Theoretically, the theory of Technology Acceptance Model (TAM) is based on the Theory of Reasoned Action (TRA). In TAM, two theoretical constructs, perceived usefulness and perceived ease of use, are the fundamental determinants of systems implementation and use, in this research the Revenue collection system.

**Usefulness of Theory of Reasoned Action to this Research:** TRA is applicable when studying consumer behavior (as per Revenue collection system applications in Kenyan counties to varies sub-counties and departments on orientations or institutional planning models. Regarding the Revenue collection system acceptance study, Kanungo and Bagchi (2000) have applied the Theory of reasoned action (TRA) in a study concerning about user participation and involvement in Revenue collection system implementation and context, their research aims to identify variables that needs to explain in Revenue collection system. Context for their system implementation and use.

According to Kanungo and Bagchi's (2000) study has concluded that the model of theory of reasoned action can be used for studying the usage of systems in industries and higher institutions of learning context, and their research findings also proved that the model does explain user behavior compare to other model.

### **2.1.5 Theory Of Planned Behavior (Tpb) And Revenue Collection**

Theory of Planned Behavior (TPB), is a set of salient behavioral, normative, and control beliefs are identified as determinants of the intention to explore. This research will utilize TPB to engage in the exploratory use of Revenue collection system technologies, user, such counties will likely need to overcome significant knowledge and motivational barriers. Recognizing the economic structure, some research suggest that countries with sizeable shadow economies or informal sectors have lower tax morale (intrinsic motivation to pay tax) as people in the formal sector can more easily observe large numbers of others escaping the tax net (Alm and Torgler, 2004). Recognizing the economic structure, some research suggest that countries with sizeable shadow economies or informal sectors have lower tax morale (intrinsic motivation to pay tax) as people in the formal sector can more easily observe large numbers of others escaping the tax net (Alm and Torgler, 2004).

The business tax culture and morale of the private sector are more complex. The complex relationship between tax authorities and tax payers reflect a country's tax culture (Torgler, 2007). Therefore, how the tax authority treats different segments of the formal and informal economy shapes the business tax culture at the same time, the attitudes of entrepreneurs in the different sectors of the economy to the legitimacy of the state, the extent of corruption, voice and accountability are critical to trust in the state on which economic growth depends; Tax effort and tax collection depend not just on the income base but also on the political and institutional bases, specifically the extent to which taxpayers trust their governments (Bird, Martinez-Vazquez and Torgler 2006).

The business tax culture and morale of the private sector are more complex. The complex relationship between tax authorities and tax payers reflect a country's tax culture (Torgler, 2007). Therefore, how the tax authority treats different segments of the formal and informal economy shapes the business tax culture at the same time, the attitudes of entrepreneurs in

the different sectors of the economy to the legitimacy. Thus, key knowledge and motivational factors are also included in the research model. Behavioral beliefs refer to the individual's beliefs about the consequences of performing the behavior. TPB theory, focuses on cognitive self-regulation. It is very similar to the TRA model, but the difference is that it takes into account an additional construct, namely perceived behavioral control. Perceived behavioral control refers to the perception of control over the performance of a given behavior.

In TRA rational considerations determine the choices and behaviors of individuals, and individual intentions determine behavior. Intentions refer to individuals' plans and motivations to commit a specific act. Intentions also reflect individual attitudes and the extent to which individuals perceive a specific act as desirable or favorable. The theory suggests that human behavior is governed by personal attitudes, but also by social pressures and a sense of control. Factors contributing to the acceptance of a Revenue collection system are likely to vary with the technology, target users, and context. Most of the prior studies have been carried out in traditional and relatively simple but important environments, such as personal computing, e-mail systems, word processing and spreadsheet software.

The measurement problems related to tax gaps are twofold. Firstly it is impossible to have a precise and reliable estimate of the revenue collection potential. Part of the reason for this is that the limits to revenue collection are political, besides being economic and technical. Even when economic conditions are in place for increasing tax revenue, this increase will hardly materialize if the county government does not have the political capacity to command its revenue collection agencies, generate adequate political support, and suppress and/or survive adverse political reactions. So we know there is a tax gap, but its satisfactory measurement is very difficult due to the complexity of factors influencing it.

Secondly, even if such measurement were possible, it would be very difficult to quantify the revenue losses due to different causes for the existence of the tax gap. It is likely that closing one specific gap would generate increasing political resistance from taxpayers to closing other gaps. While this study does not attempt a quantification of tax gaps, it provides an identification of the ones that are most relevant in developing countries and specifically in Kenyan government and more so in county government. This is a necessary basis to evaluate current and potential actions that the international community may undertake to support revenue collection mobilization in developing countries. But with the advent and adoption of Revenue collection systems that cut across functional and organizational boundaries requiring business process reengineering during implementation. One of the key factors which need to be taken into account is the user satisfaction, which has also been highlighted in TAM.

**Usefulness of Theory of planned behavior to this the study :** Taylor and Todd (1995) and Mathieson (1991) compared the ability of TPB and TAM to explain behavior and predict an individual's intention to use ICT and hence systems, Technology Acceptance Model (TAM). The Technology Acceptance Model (Davis, 1989), one of the most researched and accepted models that explains individual IT use at the acceptance stage, has identified two salient beliefs that predict information technology use: perceived usefulness (the belief that using an application will increase one's performance in terms of Revenue collection techniques, application, management and perceived ease of use (the belief that one's use of

an application will be relatively free of effort, to surrender taxes ,offer VAT collected to the government .

### **2.1.6 Theory Of Technical Acceptance Model (Tam)**

Davis defined perceived usefulness as “the degree to which a person believes that using a particular system would enhance his or her job performance” and defined perceived ease of use as “the degree to which a person believes that using a particular system would be free of effort.” TAM postulated that computer usage is determined by a behavioral intention to use a system, where the intention to use the system is jointly determined by a person’s attitude toward using the system and its perceived usefulness. Research efforts have been devoted to extensions to the theory by examining the antecedents of those two beliefs constructs underlying TAM. County Governments are taking ICT as an important tool for delivering services to citizens and businesses. There are few electronic governance systems, most focusing on revenue collection based on Local Authorities Integrated Financial and Operations Management System (LAIFO MS), the system used by the local authorities that preceded the creation of County Governments.

Experts on taxation in developing countries strongly agree that there is considerable potential to increase tax revenue in most low-income countries. In its 2011 policy paper on the subject, the IMF stated that an increase was not only possible but also desirable (IMF 2011). The technology acceptance model (TAM) aims at explanation and prediction of user acceptance of technology at work and has been used by numerous scholars investigating usage intentions and behavior (Venkatesh and Davies, 2000).hence Integrated ICT infrastructure in counties is a key foundation necessary for the successful implementation of other foundations and pillars. It seeks to provide the integrated infrastructure backbone required to enable cost effective delivery of ICT products and services to Kenyans, businesses and other stakeholders.

Research from findings of the World Bank study presented in the (Minh Le et al. 2012) confirm that most low income countries have both low tax collection and low tax effort, the latter indicating that tax revenues are below their potential level<sup>16</sup> and this due to poor system. In addition to having revenue below potential, many LICs still face tax shares (of GDP) below 15% which is considered a reasonable threshold for ensuring government functioning.

### **2.1.7 Agency Theory And Revenue Collection System**

Agency theory addresses the effect of incentives on the behavior of individuals in an institution i.e. county in terms of the implied contractual relationships between principal and agent (Baiman, S & Eisenhardt, K, 1989:1990). The design of an imperfect incentive structure provides the agent with a motive to shirk his effort because such a structure lets his own economic interest diverge from that of the Principal. An appropriate reward structure significantly reduces the conflicts of self-interest between principal and agent and helps to curb agent opportunism. Incentive structures in outsourcing contracts help to align the motives of the agents and the principals to facilitate project success. A well-designed incentive structure with a balance between penalties and rewards predicts increased desire on the agent’s part to meet the terms of the contract. It also predicts agent behavior that is consistent with the principal’s best interest (Bryson, K. 2002).

Research has confirmed the effects of monitoring. Boards of directors use monitoring to effectively control and assess the managers making important decisions in large professional organizations, Monitoring the agent's actions in the post-contractual stage helps the principal to find out if the agent is acting appropriately. It consequently helps the principal ratify or appreciate the agent's actions. At the same time, it also creates social pressure on the agent and thereby increases the probability and extent of the agent's compliance. The agent, knowing that he is being observed, is less likely to shirk or act against the interest of the principal. Monitoring can be effective in controlling agent behavior and curbing post-contractual agent opportunism, (Wathne & Heide, 2000).

**Usefulness of the agency theory to this the study:** Agency theory suggests that the more the principal (County Governor, Directors, administrators / managers and heads of departments) relies on the agent for success, the more the principal (Heads of departments i.e county director, managers, commissioners) needs to monitor the performance of the agent. Greater monitoring/management interventions are presumed to produce better expected Revenue collection system outcomes (Might and Fischer, 1985). Agency theory will help County, stockholders (County Governor, Directors, administrators / managers and heads to manage their relationships during the implementation process, and thus help them enhance the probability of systems implementation success (Might and Fischer, 1985).

Agency theory will also be useful for managing other outsourced Information Technology projects that have implementation settings similar to Revenue collection system. Monitoring the agent's actions in the post-contractual stage helps the Revenue collection system project implementation to find out if the agent is acting appropriately. The consultants provide technical, administrative and business expertise, hence reduce the burden of County employees to configure and customize appropriate systems, and train users to fully exploit the technology (Wang et al., 2006).

#### **2.1.8 Control Theories And Revenue Collection System**

Control theories, involves Clan control and self-control, it suggests that controllers utilize behavior and outcome controls, two modes of formal control (Tiwana and Keil, 2010). Clan control and self-control represent two modes of informal control (Manz et al., 1987). Taxation for state development, therefore, requires understanding of tax as system that needs to be administratively effective, economically efficient, and politically equitable (Moore, 2007). Public finance economists long ago included a political dimension in their comments that „Political will. Was also a factor in revenue collection (Kaldor, 1963).

County government's abilities to collect taxes depend on people's willingness to pay them. People's perception of the risk of detection and punishment, and the impact of different penalties, occupied the first round of research on tax compliance (Allingham and Sandmo 1972). According to Levi (1997), a society's public-spiritedness or normative conviction can be motivating factors in the willingness to pay taxes Under behavioral control, controllers explicitly define the procedures that are to be followed for completing tasks and evaluate controlees' performance by comparing actions taken to the prescribed procedures. Outcome control defines desired task outputs with appropriate targets. Controlees determine how to best meet those targets. Informal controls are social, focusing on individual or group norms and values (Covaleski et al., 1998).

Our research considers a clan is a group where individuals depend on each other and share the same goals. Unlike behavior and outcome controls, there is no explicit incentive to align goals because the clan has the same set of goals or values. Self-control is when an individual sets his own goals, monitors his goal achievement, and rewards or sanctions himself. People with a strong belief in welfare state might thus be more willing to pay high rates of taxes. Religious traditions of "Zakat" or "tithing" might form a sense of moral obligation to hand over a percentage of one's income to the community (Hull, 2000).

The attitude in this case are intrinsic and not conditioned by actions of the government, although they might well be conditioned by state-society relations in the past. Recent studies, with the popularity of outsourcing IS projects, have begun to directly contrast how controllers attempt to control internal projects with outsourced projects (Tiwana and Keil, 2010). Hazards that control attempts to mitigate were found to be less pronounced in internal projects relative to outsourced systems. However, Controllers cannot self control others, but can encourage others to exercise self-control by structuring a work environment that rewards autonomy.

**Useful of control theories to Revenue collection system:** A control system is goal-oriented. Its ultimate intent is not to control the behavior of people in predefined ways, but to influence them to make decisions and take actions that are likely to be consistent with the county goals. Ideally, the objective of the control theories is to promote an identity between the goals of organizational members (e.g., consultants) .Ouchi"s control theory (1979), which is derived from agency theory, could provide a useful theoretical foundation for conceptualizing the control mechanisms implemented in Revenue collection system programs. The notion of control is based on the premise that the controller (the Hod, Operator, managers and controlee (the agent) have divergent interests, which control mechanisms attempt to align.

### **2.1.9 Cultural Theories And Revenue Collection System**

Cultural theories from Hofstede and Hall have been used to explore the influence of national culture. Hofstede (2001) defines culture as a collective programming of mind that differentiates members of one group from other. Hall (1994) sees culture as a screen which lies between a person and his environment and enables him to decide what is more important for him. In this study, Hofstede's configuration is used since it is a well-tested and known theory. It is the most comprehensive research study of national cultures and has been used in some Revenue collection system studies which are discussed under Revenue collection system and culture.

Hofstede's configuration of cultural dimensions consists of four main elements of culture— power distance, individualism vs. collectivism, masculinity vs. feminism, and uncertainty avoidance with each country scored on a scale of 0 to 100, relative to comparisons in the sample. His index, based on his study of IBM (systems) employees in 85 countries around the world, is a useful alternative to the traditional categorization of culture .Employees in these cultures tend to accept centralized power and heavily depend on their superiors for initiation (Rodrigues, 1998).

Furthermore they are less likely to be involved in any decision making process (Rees, 1998). On the other hand, in lower power distance cultures, individuals are less likely to accept centralized power and expect to be consulted in decision making (Rodrigues, 1998). Therefore

employee participation is more likely to be acceptable in lower power distance culture (Rees & Porter, 1998). On the whole, high Power Distance Index (PDI) societies exhibit large emotional distance, and subordinates will rarely approach their managers with criticism.

**Usefulness of Cultural theories: Culture** theories influences the training programme which is an important factor Revenue collection system success. Our research claims that cultural perceptions about information format could also affect the Revenue collection system implementation in nations, counties and sub-counties. Our research is contending that no universal system can be implemented in Kenyan counties successfully without resolving misfits resulting from national differences. If facilities are located in different counties, national differences such as national culture, language, management style, politics, regulations, customs, etc(Bird, Martinez-Vazquez and Torgler 2006)..

Therefore, how the tax authority treats different segments of the formal and informal economy shapes the business tax culture at the same time, the attitudes of entrepreneurs in the different sectors of the economy to the legitimacy of the state, the extent of corruption, voice and accountability are critical to trust in the state on which economic growth depends; Tax effort and tax collection depend not just on the income base but also on the political and institutional bases, specifically the extent to which taxpayers trust their governments (Bird, Martinez-Vazquez and Torgler 2006).

Criticism of Technology Acceptance Model and Revenue system: In order to explore the acceptance issue of information technology more deeply, Davis (1989) has proposed the Technology Acceptance Model (TAM), which was based on TRA model and has absorbed rational internal dimensions from expectancy theory and self-efficacy theory. Different from TRA model, TAM model doesn't have the following three 7 constructs in TRA: subjective norm, normative belief and motivation to comply. Theoretically, TAM believes that the primary determinants of information technologies adoption in organizations are perceived usefulness and ease of use (Davis, 1989).

Several studies (Adamson & shine, 2003; Brown et al., 2002; Rawstorne, Jayasuriya & Ca-puti, 1998) have applied TAM (Technology acceptance model) to explain or analyze the end-users' acceptance in an ERP system environment, the main reason of utilizing TAM is that it provides a foundation to find out the impact of external variables on internal values, attitudes, and intent. However, Legris's (2003) study also pointed out the drawback of TAM. we think their research is valuable for ERP system acceptance study, but we think the model is too simple to related to other variables they mentioned in the research if they aims to ex-plain the user behavior, especially when there are a lot of variables that influence the sys-tem use of ERP directly or indirectly, a more elaborated model is needed.

TAM model is of the view that the perceived usefulness and ease of use of IT are the major determinants of the usage of new systems. Based on this original definition, it has been argued that the research on the acceptance of technology would need to address how the different variables affect the main variable of TAM, which is usefulness, ease of use attitude and user acceptance. However, it appears that limited attention has been given by the literature on understanding the factors which have influenced the perceived usefulness and ease of implementation of ERP systems.

**Criticism of Cultural theories and Revenue collection:** There have been several definitions of culture, but for the purpose of this study, Hofstede (1991) will be used. He defines culture as the collective programming of the human mind that distinguishes the members of one human group from those of another. Culture in this sense is a system of collectively held values. Looking at culture from this angle, culture differs across continents, nations, counties, sub-counties and ethnic groups. According to Smith (2010), culture affects how people observe, interpret, perceive, and react to the world around them.

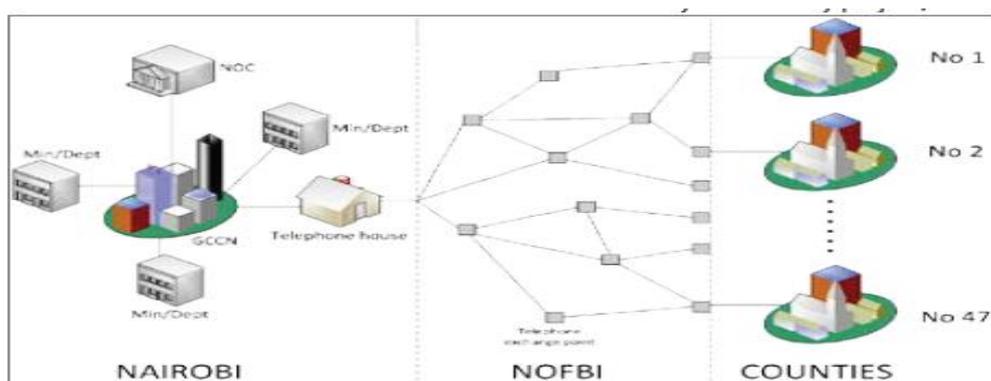
Uncertainty Avoidance refers to how uncomfortable people feel during an imprecise and uncertain situation (Yeniyurt and Townsend, 2003). In high Uncertainty Avoidance cultures, organizations have the characteristics of resistance to new technology and not taking potential risks about technology (Hofstede, 2001). This resistance can also be found at individual level, where people show their dissatisfaction with new technology because of getting used to doing things by the traditional way (Yeniyurt and Townsend, 2003). Uncertainty Avoidance Index (UAI) measures the extent to which members of a society accept ambiguity and uncertainty. In a broader sense, tax evasion is the set of actions, legal or illegal, that individuals and firms can adopt to reduce their tax payments. This broader definition includes tax avoidance and aggressive tax planning – activities that generally are not illegal, but may be considered morally or socially unacceptable. It is tax evasion in this broader sense that matters most for developing countries. Countries with a high UAI score tend to maintain rigid codes of conduct and belief, and are less likely to be tolerant of unorthodox behavior or ideas.

## **2.2 National Ict Infrastructure**

The Government has also developed a Government Common Core Network (GCCN). This is meant to serve as a shared and secure interoperable Government-wide ICT architecture. The system will not only integrate work processes and information flows, but also improve inter-ministerial sharing of databases and exchange of information to eliminate duplication and redundancies, improve service delivery such as efficient Revenue collection, public access to Government services and ensure responsiveness in reporting, monitoring and evaluation (Kenya e-Government Master Plan, 2013).

The Government through the national treasury is implementing a disaster recovery facility for data and systems as part of the business continuity plan. This will ensure that the Government services continue to be provided even in case of any disaster at the primary sites. Better persuading taxpayers of the value of the public spending financed by the taxes they pay, including by improving the management and quality of that spending, can further bolster trust in and compliance with the tax system, hence this facility will also offer an environment for cloud computing to offer services by the County Governments and hence such will automatically promote Revenue collection.

Although most County Governments have not yet started developing their ICT infrastructure, NOFBI can be used to connect the National Government to the County Governments and interconnect the latter to share data and information, as shown in the envisioned connectivity between NOFBI and GCCN (Figure 2).



Source: County connectivity project, 2014

County Governments should take ICT as an important tool for delivering services to citizens, tax collection, monitoring county project and other business operations within the counties and sub-counties, all the same including with advanced economies in both policy and administration, as well as further support for capacity building. Continued trade liberalization will put pressure on revenue in many lower-income counties. Scope to meet these and other revenue needs by simply raising standard VAT rates is becoming limited, so the potential lies largely in better improving compliance and scaling back preferential treatments.

Moving towards a Digital Kenya, there are few electronic governance systems, most focusing on revenue collection based on Local Authorities Integrated Financial and Operations Management System (LAIFOMS), the system used by the local authorities that preceded the creation of County Governments. Most county Governments at this level have begun developing County ICT Master Plans, which will need to be aligned to this National ICT Master Plan. At the ministry level, all departments have been mandated to use IFMIS, which will boost service delivery specifically revenue collection by counties, Adam and Bevan (2004). The county governments need additional financial resources to address the huge development challenges they face. While great progress was made in recent years towards achieving the Millennium Development Goals, a large proportion of people in low-income counties, especially semi-arid counties still face poverty, malnutrition, vulnerability to natural disasters and preventable diseases, amongst others, Adam and Bevan (2004).

Our research considers African countries, and specifically Kenyan in comparative perspective, developing countries raise substantially less revenue than advanced economies. The ratio of tax to GDP in low-income countries is between 10% and 20% whereas for OECD economies it is in the range of 30-40%. Table 3, reports data from the International Monetary Fund (IMF 2011) and similar figures are cited in the EC communication of 2010 on Tax and Development and in the European Parliament resolution of 8 March 2011 on Tax and Development<sup>8</sup>. Table 3 also shows that low-income countries rely more on trade taxes rather than income taxes for raising government revenue. Aid has certainly contributed to alleviating some of these issues, but it is becoming increasingly clear that the development challenge requires increasing domestic resources, Adam and Bevan (2004). Fig: 3

	All	High income OECD	High income non OECD	Upper middle income	Lower middle income	Low income
<b>Government revenue, %GDP</b>	28.7	41.5	33.8	28.5	26.4	18.4
<b>Gov. revenue excl. grants, %GDP</b>	27.8	41.4	33.7	27.9	25.6	15.2
<b>Government taxes, %GDP</b>	20.5	35.4	15.7	20.7	17.7	13.0
<b>Income Tax<sup>9</sup>, %GDP</b>	6.9	12.9	5.9	5.4	5.0	3.5
<b>VAT revenue, %GDP</b>	5.9	6.8	6.2	5.2	5.0	4.9
<b>Trade Tax, %GDP</b>	3.6	0.6	2.7	4.6	4.9	3.7

Source: IMF (2011)

While many African countries raise already 15% or more in tax revenue, some countries still do not raise the necessary amount of resources to allow for sound functioning of domestic institutions and basic service delivery, as such Kenyan counties should be shaped by the mode and the drive by means of ICT in revenue collection in order to alleviate the problem faced by developing countries, as matter of fact utilizing the Government Common Core Network (GCCN), is one of the best approaches.

Kenya has been among Africa's finest in ICT innovation with mobile money transfer services, leading to increased financial inclusion. Over the years, Kenya has been home to multiple African Regional hubs including, IBM's first African Research lab, Nokia's Africa Headquarters and Google's first Sub-Saharan Africa office (outside of South Africa). Despite the fact that all counties collect revenue very little is known about the ways off making revenue collection efficient, its relation to growth and development and the factors that influence the adoption of MIS in counties.

A lot of research has been done on other aspects of county government role but few or none has been carried out on how to make revenue collection efficient by adoption of MIS. A regressive tax may be the only way to finance strongly progressive public expenditure; conversely, where the ability to target spending is relatively weak, progressivity on the tax side is a greater concern. Second, those who bear the real burden of any tax may not be those responsible for remitting it to the government. To the extent that capital is internationally mobile, for instance, a small country cannot affect the after-tax return required by foreign investors: trying to do so will simply reduce the income of immobile factors (local labor, most likely).

### 2.3 Enterprise Architecture Process Model Sample Revenue System Model

Fairfax County adopted Enterprise Architecture (EA approach) as the blue print or roadmap by which specific technology solutions are developed. Architecture defines the manner in which technology is used to enable flexible business solutions which enable expansion and change as requirements evolve, technology is updated, or becomes obsolete. Architecture as a foundation and roadmap enables the County to establish open standards, assess the impact of new requirements and evolving technologies, and allow for the incorporation of new technologies as part of an updated blueprint that benefits other. Enterprise Architecture Process Model

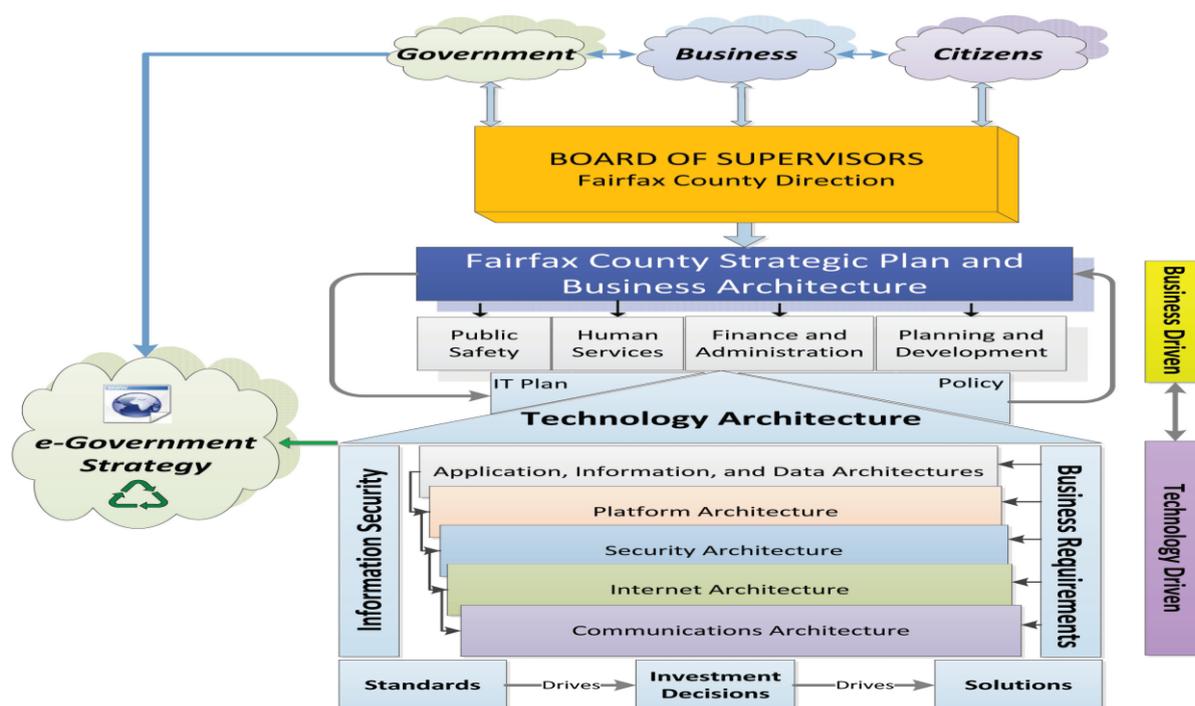


Fig4: Architecture Process Model

Source : Fairfax County adopted Enterprise Architecture 2010

Fairfax County adopted Enterprise Architecture (EA approach) as the blue print or roadmap by which specific technology solutions are developed. Architecture defines the manner in which technology is used to enable flexible business solutions which enable expansion and change as requirements evolve, technology is updated, or becomes obsolete. Architecture as a foundation and roadmap enables the County to establish open standards, assess the impact of new requirements and evolving technologies, and allow for the incorporation of new technologies as part of an updated blueprint that benefits other.

Distributional effects are important in themselves; poverty relief is a major motivation for raising revenue in the first place and for their impact on compliance (likely damaged if taxpayers perceive others, including all-too-often some elite, as paying too little. Two points are critical in assessing these effects. First, what ultimately matters is not the impact of any tax instrument in isolation, but the combined impact of all such measures and of the spending they finance.

A regressive tax may be the only way to finance strongly progressive public expenditure; conversely, where the ability to target Spending is relatively weak; progressivity on the tax side is a greater concern. Second, those who bear the real burden of any tax may not be those responsible for remitting it to the government. To the extent that capital is internationally mobile, for instance, a small country cannot affect the after-tax return required by foreign investors: trying to do so will simply reduce the income of immobile factors like local labor .

#### 2.4 India Vat Revenue Collection Boosted By Means Of Ict

VAT introduced in India is a simple and transparent tax collection on the sale of goods, in India VAT is consumption based and applies on destination principal. VAT is a multi-point levy

affording tax credit on purchases at each stage to be set-off against tax payable. On sales at 0%, 1%, 4%, 5% and 20% except in a few states. Goods other than those notified to be covered under the above rates are charged at a general rate ranging from 12.5% to 15% except in a few states. However, liquor, petrol or diesel are taxable at the minimum rate of 20% and may vary from state to state while, gold and bullion are taxable at the rate of 1% .It is proposed that Central Sales Tax (CST), which has been reduced to 2% with effect from June 2008, will be gradually phased out in order to allow movement of goods freely from one state to another state

The single window system and abolition of CST are indispensable to obtain the cent percent success of VAT (Jayakumar, 2012, p29), and second most important requirement is revenue in this context. The various study shows that the state revenue is quite encouraging .The rate of growth of revenue under VAT system is higher than the former sales Tax system. In most of the states such as Andhra Pradesh, Bihar, Karnataka, Kerala, Maharashtra, Orissa Punjab and West Bengal the annual average growth rate is higher in VAT system.

The average annual rate of growth of sales tax in these states was only 10.94%, which increased to 18.68% after five years of the introduction of VAT. It clearly shows that VAT has been a revenue raiser for the states. Not only the broadening of the tax base, but also other factors such as increased administration, efficiency resulting from the use of information and communication (ICT) and the self-policing features of VAT seem to have contributed to the higher efficiency of VAT(Sebastian,2011,p29).

According to Sebastian,(2011), he analyses the impact on state tax revenue, tax administration and compliances. In this context he says that VAT has been revenue riser for the Indian states. Not only the broadening of the tax base, but also other factors, such as increased administrative efficiency resulting from the use of information and communication technology (ICT) and the self-policing feature of VAT seem to have contributed to the higher efficiency of VAT.

### **Recomendations**

Establishing effective revenue administrations by making proper use of withholding and third-party information, and capable of building on these to implement voluntary compliance and self-assessment subjecting to audit and penalties both as a prerequisite for expanding the tax base and to help address corruption and hence designing and applying forceful and efficient strategies to deal with non-compliance.

It is the most comprehensive research study of national cultures and has been used in some Revenue collection system studies which are discussed under Revenue collection system and culture. control system is goal-oriented. Its ultimate intent is not to control the behavior of people in predefined ways, but to influence them to make decisions and take actions that are likely to be consistent with the county goals.

Agency theory will also be useful for managing other outsourced Information Technology projects that have implementation settings similar to Revenue collection system. Monitoring the agent's actions in the post-contractual stage helps the Revenue collection system project implementation to find out if the agent is acting appropriately.

This research proposes an efforts to be devoted to extensions of the TAM theory by examining the County Governments to take ICT as an important tool for delivering services to citizens and businesses in terms of Revenue collection system . Implementing policies and procedures that limit opportunities for rent seeking and help identify and punish inappropriate behavior in the revenue administration. Designing and applying forceful and efficient strategies to deal with non-compliance. Ensuring that laws and regulations are reasonably simple, readily available, coherent across taxes, and provide good taxpayer protection (including effective appeals procedures). Since In general TAM focuses on the individual 'user' of a system, with the concept of 'perceived usefulness', with extension to bring in more and more factors to explain how a user 'perceives' 'usefulness'.

Assuring strong control of the largest taxpayers, by Establish internal control system, management information system, ICT infrastructure and revenue collection in county governments, hence utilizing the Unified Theory Of Acceptance And Use Of Technology (UTAUT) ..Replacing inefficient production or sales taxes, after adequate preparation of both the administration and taxpayers, by a simple VAT—including to catalyze administrative reforms.

### References

- Adam and Bevan (2004) mention a consensus around a tax ratio of 15-20% for post stabilization
- Bagozzi, R.P. (2007), "The legacy of the technology acceptance model and a proposal for a paradigm shift.", *Journal of the Association for Information Systems* 8(4): 244–254.
- Benbasat, I.; Barki, H. (2007), "Quo vadis, TAM?", *Journal of the Association of Information Systems*, 8 (4): 211–218
- Bagozzi, R. P.; Davis, F. D.; Warshaw, P. R. (1992), "Development and test of a theory of technological learning and usage.", *Human Relations*, 45(7): 660–686
- Casanegra de Jantscher, Milka, 1990, "Administering the VAT," in *Value-Added Taxation in Developing Countries*, ed. by Malcolm Gillis, Carl S. Shoup, and Gerardo P. Sicat (Washington: World Bank).
- Countries. International Monetary Fund (2005) suggests that a tax ratio of 15% is a reasonable target for most low-income countries.
- Davis, F. D. (1989), "Perceived usefulness, perceived ease of use, and user acceptance of information technology", *MIS Quarterly*, 13(3): 319–340
- Davis, F. D.; Bagozzi, R. P.; Warshaw, P. R. (1989), "User acceptance of computer technology: A comparison of two theoretical models", *Management Science* 35: 982–1003
- Fakile Adeniran Samuel 2008, *Mobilizing Tax Revenue for Development in Africa*, Fakile Adeniran Samuel Department of Accounting School of Business College of Development Studies Covenant University, Ota, Nigeria E-mail address: adfak70@yahoo.com
- IFC, 2007, "Designing a Tax System for Micro and Small Businesses: Guide for Practitioners."
- International Monetary Fund, 2000, "Recent Experience with the Value-Added Tax—An Overview" (Washington: International Monetary Fund).
- International Monetary Fund,, 2005, "Dealing with the Revenue Consequences of Trade Reform," *IMF Policy Paper, Supplement 2* (Washington: International Monetary Fund).
- International Monetary Fund,, 2010a, "Reaching the MDGs: Macroeconomic Prospects and Challenges in Low- Income Countries," *Background Note for the United Nations MDG Summit.*

International Monetary Fund,, 2010b, "A Multi-Donor Trust Fund for IMF Capacity Building Technical Assistance in Managing Natural Resource Wealth: Draft Program Document" available at [www.imf.org](http://www.imf.org)

Venkatesh, V.; Davis, F. D. (2000), "A theoretical extension of the technology acceptance model: Four longitudinal field studies", *Management Science*, 46(2): 186–204

Venkatesh, V. (2000), "Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model", *Information systems research* 11 (4), pp. 342–365

Venkatesh, V.; Morris, M. G.; Davis, G. B.; Davis, F. D. (2003), "User acceptance of information technology: Toward a unified view", *MIS Quarterly*, 27(3): 425–478

Venkatesh, V.; Bala, H. (2008), "Technology Acceptance Model 3 and a Research Agenda on Interventions", *Decision Sciences*, 39(2): 273–315