

## **IMPACT OF INFORMATION TECHNOLOGY OUTSOURCING ON REVENUE COLLECTION PERFORMANCE OF KIAMBU COUNTY GOVERNMENT, KENYA**

<sup>1\*</sup> **Dennis Macharia**  
[machaad2000@yahoo.com](mailto:machaad2000@yahoo.com)

<sup>2\*\*</sup> **Oluoch J. Oluoch**  
[jooluoch@jkuat.ac.ke](mailto:jooluoch@jkuat.ac.ke)

<sup>1,2</sup> Jomo Kenyatta University of Agriculture and Technology, Kenya

---

**Abstract:** *This study sought to establish the impact of information technology outsourcing on revenue collection performance of Kiambu County Government, Kenya. Specifically, the study explored the impact of outsourcing of e-ticketing services, outsourcing of e-property rates collection and outsourcing of e-licencing on revenue collection performance of Kiambu County Government. The study used a descriptive research design. The target population of the study was the 12 Sub County Revenue Collection Units of Kiambu County. The study utilized secondary data which was collected using a Secondary Data Collection Sheet. The study data was analyzed through descriptive statistics and presented through percentages, frequencies, mean and standard deviation. In addition, the study applied the ANOVA test and F ratio at a significance level of 5% to test the study's null hypothesis that there was no difference between pre and post IT outsourcing revenue collection performance in Kiambu County Government. The statistical analysis was performed using the Statistical Package for Social Science (SPSS version 23.0). The study findings were presented in tables. The study found that the difference between the pre and post outsourcing of e-ticketing services, e-property rates and e-licencing revenue collections in Kiambu County was statistically significant. The study findings also showed that the increase in the mean values of revenue collected from e-ticketing services, e-property rates and e-licencing was higher in the post-outsourcing period than in the pre-outsourcing period. The study concluded that outsourcing of e-ticketing services, e-property rates collection and e-licencing had a significant impact on the revenue collection performance of Kiambu County Government. To continually improve its revenue collection performance, the study recommends that the administration of Kiambu County Government should consider outsourcing revenue collections from sources that are not yet outsourced. Further, the Kiambu County Government should continually review its outsourced revenue collection functions in order to ensure that they are meeting the intended objective of helping the county maximize its revenue collection performance.*

**Keywords:** E-licencing, E-property rates, E-ticketing, Information technology outsourcing, Revenue collection performance

### **1.0 Introduction**

Since the late 1990s, technological innovation has been an important matter in revenue collection. Among governments, the advent of new information technology (IT) tools that help enhance efficiency and effectiveness in public service delivery have led to significant changes in the way taxes and revenues are collected (Naresh, 2017). The necessity to abolish former existing revenue collection structures and replace them with the new IT based revenue collection platforms is becoming more demanding as local governments struggle to meet revenue collection targets (Bers, 2012). The task of public revenue collection is a complex one given the massive number of taxpayers that need to be reached, the reluctance of taxpayers to meet their

tax obligations and the different rules that are applied for each case. To perform the alluded duty, many of the governments around the world have sought to deploy the use of IT based systems to enhance their revenue collection efforts especially in the face of the inadequacies of the manual revenue collection systems (Geys & Sorensen, 2016).

### **1.1 Information Technology Outsourcing**

Outsourcing is a strategic decision of a company to use an outside organization to perform work that is typically done within that company. It is the process of establishing and managing a contractual relationship with an external supplier concerning provision of capacity that has previously been provided in-house (Khakia & Rashidib, 2012). IT outsourcing is a special type of outsourcing activity which enables organizations to use vendor(s) for their Information System (IS) related operations (Naresh, 2017). According to Garcia (2014), IT outsourcing refers to the use of an independent outside organization to perform an entity's IT related activities/functions.

The decision to outsource is a major strategic one for most companies since it involves weighing the potential cost savings against the consequences of a loss in control over the product or service. Successful outsourcing requires a strong understanding of the organization's capabilities and future direction (Wachira, 2016). According to Onaolupe (2016), IT outsourcing helps the company to concentrate on its key business, save costs on IT-solutions and be assured of high-quality service from competent specialists in the IT sphere. On his part, Amaechi (2017) identified cost reduction, service quality improvement and acquisition of new technical skills and management competencies as the leading benefits of IT outsourcing. Other benefits of IT outsourcing include sharing of IT risks with partner firm(s), increased performance, increasing service efficiency, flexibility and predictability and acquiring technological advances (Mabhuye, 2013). In spite of its numerous benefits, IT outsourcing is not a risk-free process and if poorly executed can lead to a variety of problems such as loss of control to the outsource partner, increased costs, brand damage, disrupted service, loss of operational knowledge and even business failure (Mungai, 2015).

### **1.2 Revenue Collection Performance**

Revenue collection is a major challenge facing many jurisdictions worldwide but the challenges tend to be more acute in developing countries in comparison to developed countries (Tahiru, Agbesi & Osei-Owusu, 2014). Creating a sustainable revenue collection system that can administer own source revenues in an easy, efficient and cost effective manner is a goal that many national and sub-national governments around the world share (Anderson, 2013). Revenue collection systems are aimed at: (1) raising more revenue; (2) improving internal organization; (3) ensuring greater accountability, transparency and integrity; (4) improving taxpayer compliance; and (5) improving service delivery to taxpayers (Gemmell *et al.*, 2013). Across the world, governments are constantly under increasing pressure to collect more revenue with reduced budgets (Geys & Sorensen, 2016). To address these challenges and with recent advances in IT, there has been a strong drive to use IT outsourcing as a mechanism to increase efficiency in revenue collection (Ochieng, 2012).

For the purpose of this study, revenue collection performance referred to the amount of funds collected by the Kiambu County Government from the residents of the county in order to facilitate its operation. Revenue collection performance was measured by ascertaining the amounts of funds collected by the Kiambu County Government over a period of 8 years between 2009 and 2016.

### 1.3 Problem Statement

The importance of revenue collection in governments cannot be overemphasized. It is through revenue collection that governments are able to meet the costs of offering public goods and services such as education, health, security, housing and infrastructure. Therefore, an efficient, reliable, and fair revenue collection system is critical for the government to be able to gather sufficient financial resources to support the provision of these public goods and services to the society (Madzibuko, 2016). The application of IT outsourcing public financial management is intended to enhance the overall fiscal performance of the national and local governments (Fjeldstad *et al.*, 2014). The Kiambu County Government has embraced IT outsourcing in the areas of e-ticketing services, property rates collection and licence fees collection in an effort to increase the county's revenue basket. However, in spite of these efforts, the county has not been able to meet its revenue collection targets. For instance, in 2014/15, the Kiambu County Government's total internal revenue was KES 2.11b against a target of KES 3.2b while in 2015/2016 the total revenue collected was 2.45b against a target of 3.3b (KNBS, 2016). This clearly illustrates that the Kiambu County Government is still having challenges in revenue collection. Existing local studies on outsourcing had not focused on the impact of IT outsourcing on revenue collection performance in the county governments in the country and therefore a knowledge gap existed. To fill this research gap the current study sought to investigate the impact of information technology outsourcing on revenue collection performance of Kiambu County Government.

### 1.4 Study Objectives

The general objective of the study was to determine the impact of information technology outsourcing on revenue collection performance of Kiambu County Government. The study was however based on the following specific objectives;

- i. To establish the impact of outsourcing of e-ticketing services on revenue collection performance of Kiambu County Government.
- ii. To determine the impact of outsourcing of e-property rates collection on revenue collection performance of Kiambu County Government.
- iii. To explore the impact of outsourcing of e-licencing on revenue collection performance of Kiambu County Government.

## 2.0 Theoretical Framework

The study was guided by three theories namely; the Resource Dependency theory, the Technology Acceptance Model theory and the Agency theory, as described herein;

### 2.1 Resource Dependency Theory

The Resource dependency theory (RDT) has its origins back in the 1970s and is traced to the publication of Pfeffer and Salancik in 1978 titled "*The External Control of Organizations: A Resource Dependence Perspective*". The Resource dependency theory posits that power is based on the control of resources that are considered strategic within the organization. RDT has its origins in open system theory as such organizations have varying degrees of dependence on the external environment, particularly for the resources they require to operate. Davis and Cobb (2010) observed that RDT assumes that organizations must engage in exchanges with actors in the external environment to obtain needed resources. This theory is thus based on the premise that the procurement of external resources is an important tenet of both the strategic and tactical management of any company (Khakia & Rashidib, 2012).

Resource dependency theory states that organizations have specific resources but few organizations are self-sufficient in these resources and therefore must depend on others for important resources. A deficiency in one or more strategic resources (that is, core competencies) is seen as the driving force for collaboration and a means of reducing uncertainty and managing this dependency (Amaechi, 2017). This theory was relevant to the current study given that IT resources and competencies are critical to an organization's performance but often these resources and competencies are not found within an organization. In such circumstances, outsourcing becomes a viable option through which the organization can access the IT resources and competencies from other vendors with a view of capitalizing on them to enhance organizational performance.

## **2.2 Technology Acceptance Model Theory**

The Technology Acceptance Model (TAM) was developed by Davis in 1989. This model relates the individuals' behavioural intentions and his/her ICT use. It is suggested that, the actual behavior of a person is determined by his behavioural intention to use, which is in turn influenced by user's attitude toward and perceived usefulness of the technology. However attitude and perceived usefulness are both determined by ease of use (Pedersen, Kerly & Humphrey, 2014). 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, and most notably perceived usefulness which is the degree to which a person believes that using a particular system would enhance his or her job performance. Adopting the TAM model requires the understanding of end-users requirements regarding usefulness and user friendliness (Pedersen *et al.*, 2014). Critiques of this model are directed to its inclination to the technological/technical aspects of the technology in question ignoring other factors such as social aspect of the users. In practice, constraints such as limited ability, time, environmental or organizational limits and unconscious habits will limit the freedom to act (Olumide, 2016). This theory was relevant to the current study given that the study sought to explore the impact of information technology outsourcing on revenue collection performance of Kiambu County Government.

## **2.3 Agency Theory**

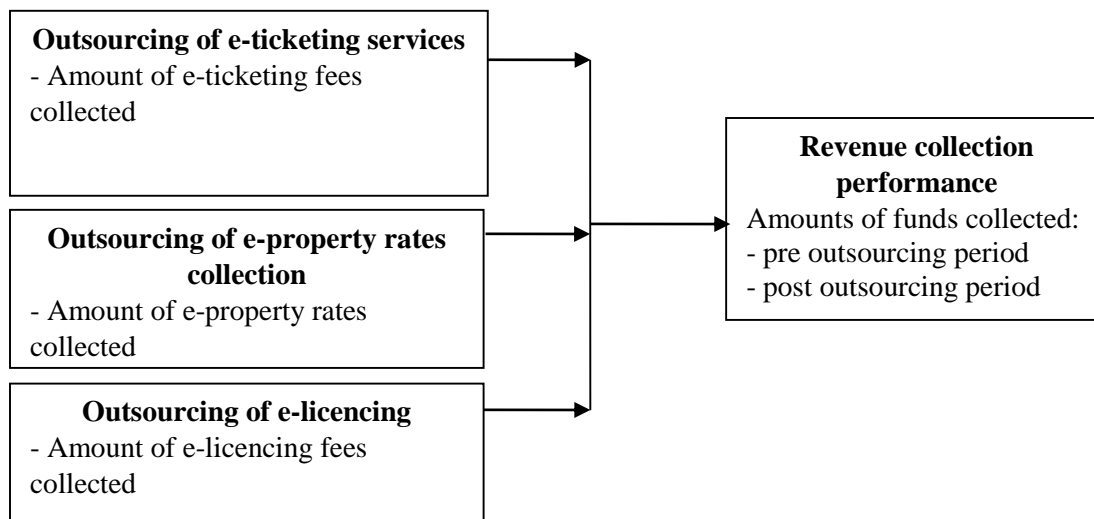
The agency theory with its roots in economic theory was expounded by Alchian and Demsetz in 1972 and further developed by Jensen and Meckling in 1976. The theory defines the relationship between the principals who are mainly the shareholders and agents who are mainly the company executives and managers. In this theory, the principals delegate the running of business to the directors or managers, who are the shareholder's agents (Namazi, 2013). According to Saltaji (2013) the theory reduces the corporation to two participants - managers and shareholders. Agency theory states that shareholders expect the agents to act and make decisions in the principal's interest. However, this is not always the case as the managers of organizations can be self-interested which makes them to make decisions that are not necessarily in the best interests of the principals (Mello, 2010). This theory was relevant to the current study given that agency related problems may arise out of the outsourcing contracts entered into between the Kiambu County Government and engaged third parties.

## **2.4 Conceptual Framework**

The conceptual framework is a visual overview of the study variables. It thus provides a quick glimpse of the study's key variables (Mugenda & Mugenda, 2009). The conceptual framework for this study was as follows;

**Independent Variables**

**Dependent Variable**



**3.0 Research Methodology**

This study adopted a descriptive research design. The object of descriptive research is to generate an accurate understanding of behaviours, events or situations (Kothari, 2004). Mugenda and Mugenda (2009) state that descriptive research design is a method which enables the researcher to summarize and organize data in an effective and meaningful way. The design was appropriate for this study as it helped the researcher to describe the state of affairs of the study subject as it existed without manipulation of variables.

According to Kothari (2004), a population is a well-defined set of people, services, elements, events, group of things or households that are being investigated. Mugenda and Mugenda (2009) explain that the target population should have some observable characteristics, to which the researcher intends to generalize the results of the study. This definition ensures that population of interest is homogeneous. The target population of this study was Sub County Revenue Collection Units of Kiambu County (Appendix IV). Currently, the Kiambu County Government has 12 Sub County revenue collection centres. This formed the study population. The choice of the sub counties of Kiambu County as the study units was based on the appreciation that the County’s revenue collection had been decentralized to its 12 sub counties. The study was a census survey.

For the purpose of this study, the researcher used secondary data which was collected using a Secondary Data Collection Sheet (Appendix I). The secondary data was obtained from the annual financial and management reports of Kiambu County Government for a period of 8 years between 2009 and 2016. The study period was divided into two parts; pre-outsourcing period [2009-2012] and the post-outsourcing period [2013-2016]. The data extraction involved obtaining details relating to the amounts collected from IT based ticketing, property rates and licencing services by Kiambu County Government over the 8-year period. This enabled the researcher to perform comparisons of the county’s revenue collection performance between the pre-outsourcing period and the post- outsourcing period so as to deduce whether IT outsourcing had any impact on Kiambu County Government’s revenue collection performance.

Data collected was coded and classified into different components to facilitate a better and efficient analysis. The study data was analyzed through descriptive statistics and presented through percentages, frequencies, mean and standard deviation. In addition, the study applied the ANOVA test and F ratio at a significance level of 5% to test the study’s null hypothesis that there was no difference between pre and post IT outsourcing

revenue collection performance in Kiambu County Government. According to Kothari (2004) an independent variable has a significant effect if the F-test statistic is greater than + or – 1.96 or if the p value is less than 0.05. The statistical analysis was performed using the Statistical Package for Social Science (SPSS version 23.0).

The study model specification was as follows;

$$\text{Revenue After} = \beta_0 + \text{Revenue Before}$$

## 4.0 Results and Discussions

### 4.1 Revenue Collection Performance of Kiambu County Government

The study evaluated the aggregate revenue collection performance of Kiambu County Government over the 8 year period between 2009 and 2016. The results are as illustrated in Table 4.1.

**Table 4.1 Revenue collection performance of Kiambu County Government**

Pre-outsourcing period		Post-outsourcing period	
Year	Amount collected in Kshs. Billions	Year	Amount collected in Kshs. Billions
2009	0.65	2013	1.2
2010	0.71	2014	2.11
2011	0.79	2015	2.45
2012	0.86	2016	2.47

**Source: Kiambu County Finance Office**

Table 4.1 indicates that, in the pre-outsourcing period, the aggregate amount of revenues collected in Kiambu County increased from Kshs. 0.65 billion in year 2009 to Kshs. 0.86 billion in year 2012. This represented an overall positive change in the aggregate amount of revenues collected of 32.3% over the 4 year period. Similarly, the post-outsourcing period saw the aggregate amount of revenues collected in Kiambu County increase from Kshs. 1.2 billion in year 2013 to Kshs. 2.47 billion in year 2016. This represented an overall positive change in the aggregate amount of revenues collected of 105.8% over the 4 year period. This showed that the revenue collection performance of Kiambu County was on a positive trajectory over the 8-year period. This agreed with Okiro (2015) and Ngugi (2016) who also noted that the Kiambu County Government had been able to increase its revenue collections and more so in the post-devolution period.

### 4.2 Outsourcing of E-Ticketing Services and Revenue Collection Performance

The first objective of the study sought to establish the impact of outsourcing of e-ticketing services on revenue collection performance of Kiambu County Government. The study evaluated the revenue collections in Kiambu County from E-Ticketing services in the pre-outsourcing period [2009-2012] and the post-outsourcing period [2013-2016]. The findings are as illustrated in Table 4.2 next page.

**Table 4.2 Pre and post-outsourcing e-ticketing services revenue collections in Kiambu County**

Pre-outsourcing period e-ticketing services revenues (Kshs. Millions)				Post-outsourcing period e-ticketing services revenues (Kshs. Millions)			
Year	N	Mean	Std. Dev.	Year	N	Mean	Std. Dev.
2009	12	4.536	2.720	2013	12	6.543	3.563
2010	12	4.870	2.863	2014	12	7.717	4.183
2011	12	5.098	2.922	2015	12	9.957	5.195
2012	12	5.527	3.156	2016	12	12.425	6.219

**Source: Kiambu County Finance Office**

Table 4.2 indicates that, in the pre-outsourcing period, the mean values of e-ticketing services revenues collected in Kiambu County increased from Kshs. 4.536 million in year 2009 to Kshs. 5.527 million in year 2012. This represented an overall positive change in the e-ticketing services revenues mean values of 21.8% over the 4 year period. Similarly, the post-outsourcing period saw the mean values of e-ticketing services revenues collected in Kiambu County increase from Kshs. 6.543 million in year 2013 to Kshs. 12.425 million in year 2016. This represented an overall positive change in the e-ticketing services revenues mean values of 89.9% over the 4 year period. The high standard deviation values for the e-ticketing services revenues in both the pre- and post-outsourcing periods imply that there were large variations in the amounts of e-ticketing services revenues collected among the 12 sub counties of Kiambu County over the 8-year period. However, it is clear from the results that the variations were larger in the post-outsourcing period than in the pre-outsourcing period.

These mean e-ticketing services revenue values indicate that, in general, the revenue collections from e-ticketing services in Kiambu County improved in the post-outsourcing period compared to the pre-outsourcing period implying that outsourcing of e-ticketing services had led to increased revenue collection performance from the e-ticketing services portfolio in Kiambu County. This agreed with Onaolupe (2016) who in a study of the impact of IT outsourcing on the performance of Ghanaian banks found that outsourcing of E-payment services positively influenced revenue generation in the selected Ghanaian banks. However, the findings were in contrast with those of Fjeldstad et al., (2014), Amaechi (2017) and Madzibuko (2016) who established that outsourcing of e-payment services had no significant impact on revenue collection among the selected Local Authorities in Tanzania, Nigeria and South Africa respectively.

### 4.3 Outsourcing of E-Property Rates Collection and Revenue Collection Performance

The second objective of the study sought to determine the impact of outsourcing of e-property rates collection on revenue collection performance of Kiambu County Government. The study evaluated the revenue collections in Kiambu County from E-Property rates in the pre-outsourcing period [2009-2012] and the post-outsourcing period [2013-2016]. The findings are as shown in Table 4.3.

**Table 4.3 Pre and post-outsourcing e-property rates revenue collections in Kiambu County**

Pre-outsourcing period e-property rates revenues (Kshs. Millions)				Post-outsourcing period e-property rates revenues (Kshs. Millions)			
Year	N	Mean	Std. Dev.	Year	N	Mean	Std. Dev.
2009	12	6.407	5.241	2013	12	14.964	12.242
2010	12	7.417	6.068	2014	12	20.646	16.890
2011	12	9.263	7.578	2015	12	28.640	23.429
2012	12	11.355	9.289	2016	12	37.194	30.427

**Source: Kiambu County Finance Office**

Table 4.3 indicates that, in the pre-outsourcing period, the mean values of e-property rates revenues collected in Kiambu County increased from Kshs. 6.407 million in year 2009 to Kshs. 11.355 million in year 2012. This represented an overall positive change in the e-property rates revenues mean values of 77.2% over the 4 year period. Similarly, the post-outsourcing period saw the mean values of e-property rates revenues collected in Kiambu County increase from Kshs. 14.964 million in year 2013 to Kshs. 37.194 million in year 2016. This represented an overall positive change in the e-property rates revenues mean values of 148.6% over the 4 year period. The high standard deviation values for the e-property rates revenues in both the pre- and post-outsourcing periods imply that there were large variations in the amounts of e-property rates revenues collected among the 12 sub counties of Kiambu County over the 8-year period. However, it is clear from the results that the variations were larger in the post-outsourcing period than in the pre-outsourcing period.

These mean e-property rates revenue values indicate that, in general, the revenue collections from e-property rates in Kiambu County improved in the post-outsourcing period compared to the pre-outsourcing period implying that outsourcing of e-property rates collection had led to increased revenue collection performance from the e-property rates portfolio in Kiambu County. This was consistent with Garcia (2014) who in an investigation of the effect of information technology investment outsourcing on firm-level performance in the construction industry in Philippines asserted that to remain competitive and profitable, construction firms in Philippines should continue leveraging on information technology investment outsourcing as a mechanism of enhancing their firm-level performance. The findings were also in line with those of Naresh (2017) whose study results indicated that in general ICT service outsourcing had a positive effect on revenue generation among the selected local authorities in India. However, Mrutu (2016) observed that experience from some of the local government authorities in Tanzania, which had outsourced their revenue collection function, showed that the whole process of outsourcing had not yielded the expected outcome especially on enabling the local authorities to have fiscal autonomy but instead it had turned to benefit the private agents who were contracted to collect fees on behalf of the local authorities.

**4.4 Outsourcing of E-Licencing and Revenue Collection Performance**

The last objective of the study sought to explore the impact of outsourcing of e-licencing on revenue collection performance of Kiambu County Government. The study evaluated the revenue collections in Kiambu County from E-Licencing in the pre-outsourcing period [2009-2012] and the post-outsourcing period [2013-2016]. The findings are as depicted in Table 4.4.

**Table 4.4 Pre and post-outsourcing e-licencing revenue collections in Kiambu County**

Pre-outsourcing period e-licencing revenues (Kshs. Millions)				Post-outsourcing period e-licencing revenues (Kshs. Millions)			
Year	N	Mean	Std. Dev.	Year	N	Mean	Std. Dev.
2009	12	23.965	14.368	2013	12	31.946	17.395
2010	12	25.175	14.802	2014	12	36.340	19.699
2011	12	26.389	15.126	2015	12	41.268	21.532
2012	12	28.451	16.254	2016	12	48.165	24.107

**Source: Kiambu County Finance Office**

Table 4.4 indicates that, in the pre-outsourcing period, the mean values of e-licencing revenues collected in Kiambu County increased from Kshs. 23.965 million in year 2009 to Kshs. 28.451 million in year 2012. This



represented an overall positive change in the e-licencing revenues mean values of 18.7% over the 4 year period. Similarly, the post-outsourcing period saw the mean values of e-licencing revenues collected in Kiambu County increase from Kshs. 31.946 million in year 2013 to Kshs. 48.165 million in year 2016. This represented an overall positive change in the e-licencing revenues mean values of 50.8% over the 4 year period. The high standard deviation values for the e-licencing revenues in both the pre- and post-outsourcing periods imply that there were large variations in the amounts of e-licencing revenues collected among the 12 sub counties of Kiambu County over the 8-year period.

These mean e-licencing revenue values indicate that, in general, the revenue collections from e-licencing in Kiambu County improved in the post-outsourcing period compared to the pre-outsourcing period implying that outsourcing of e-licencing had led to increased revenue collection performance from the e-licencing portfolio in Kiambu County. This agreed with Ishabailu (2013) and Geys and Sorensen (2016), who found a significant positive relationship between outsourcing of licencing activities and revenue generation among local authorities in Tanzania and Norway, respectively. However, the findings contrasted with those of Amaechi (2017) who found no significant difference in licencing revenues collected between pre-and post-outsourcing periods among local governments in Enugu State of Nigeria.

#### 4.5 Inferential Statistics

The study applied the ANOVA test and F ratio at a significance level of 5% to test the null hypothesis that there was no difference between pre and post IT outsourcing revenue collection performance in Kiambu County Government. The results are as shown in Table 4.5.

**Table 4.5 ANOVA (Analysis of Variance)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Between groups	41.806	2	20.903	57.410	.0000
	Within groups	103.769	285	.3641		
	Total	145.575	287			

Analysis of Variance (ANOVA) consists of calculations that provide information about levels of variability within a model and forms a basis for tests of significance. The "F" column provides a statistic for testing the hypothesis that  $\beta \neq 0$  against the null hypothesis that  $\beta = 0$  (Weisberg, 2005). For the purpose of this study, the one-way ANOVA was used to compare the means between the pre- and post-outsourcing revenue collections from e-ticketing services, e-property rates and e-licencing and determine whether any of those means were statistically significantly different from each other. From the findings in Table 4.5, the significance value is 0.0000 which is less than 0.05, implying that the pre- and post outsourcing revenue collection performance means of the three study variables were statistically significantly different from each other. The F statistic was significant (as was = 57.410 which is > F critical value of 3.03) and this showed that the model had a good fit. Based on these findings, the study rejected the null hypothesis that there was no difference between pre and posts IT outsourcing revenue collection performance in Kiambu County Government and hence accepted the alternate hypothesis that there was a difference between pre and post IT outsourcing revenue collection performance in Kiambu County Government. This agreed with Mabhuye (2013) and Geys and Sorensen (2016) who asserted that there exist a strong link between government outsourcing practices and the need to enhance revenue collection performance and hence outsourcing of revenue collection is one of the mechanisms that governments world over use when faced with revenue scarcity challenges. Similarly, Mungai (2015) established that IT outsourcing had a positive and significant effect on the financial performance of banks in Kenya as evidenced by growth in their revenue generation in the post-outsourcing period.

## 5.0 Conclusions

Given the significant differences between the pre and post-outsourcing of e-ticketing services revenue collections, the study concludes that outsourcing of e-ticketing services had a significant impact on the revenue collection performance of Kiambu County Government.

Given the significant differences between the pre and post-outsourcing of e-property rates revenue collections, the study concludes that outsourcing of e-property rates collection had a significant impact on the revenue collection performance of Kiambu County Government.

Given the significant differences between the pre and post-outsourcing of e-licencing revenue collections, the study concludes that outsourcing of e-licencing had a significant impact on the revenue collection performance of Kiambu County Government.

## 5.1 Recommendations

To continually improve its revenue collection performance, the study recommends that the administration of Kiambu County Government should consider outsourcing revenue collections from sources that are not yet outsourced.

The Kiambu County Government should continually review its outsourced revenue collection functions in order to ensure that they are meeting the intended objective of helping the county maximize its revenue collection performance.

To further enhance its revenue collection performance from the outsourced e-ticketing, e-property rates and e-licencing functions, the study recommends that the Kiambu County Government should continually update its records relating to the three functions in light of any new developments that may occur from time to time in order to ensure the revenue collection is based on the current status of the said functions.

## References

- Amaechi, O.C. (2017). *Revenue Generation in Enugu State Local Governments, Nigeria: An Assessment of Tax Contractors*. *International Journal of Social Science and Humanities Research*, 5(1), 236-247.
- Anderson, J.E. (2013). *Financial Controls and Revenue Collection in Copenhagen, Denmark*. *Public Finance Review*, 10(2), 45-62.
- Bers, J.S. (2012). *ICT outsourcing and the level of revenue collection in Copenhagen*. *Facilities Design & Management*, 11(3), 54-7.
- Garcia, A. (2014). *Effect of information technology investment outsourcing on firm-level performance in the construction industry in Philippines*. *International Journal of Emerging Technology and Advanced Engineering*, 2(1), 42-56.
- Gemmell, N., Kneller, R., & Sanz, I. (2013). *Fiscal decentralization and economic growth: spending versus revenue decentralization*. *Economic Inquiry*, 51(4), 1915-1931.
- Geys, B., & Sorensen, J. (2016). *Revenue scarcity and government outsourcing: Causal evidence from Norwegian local governments*. *International Journal of Management & Organizational Studies*, 8(2), 22-33.
- Khakia, A.R., & Rashidib, S. (2012). *Outsourcing and its impact on operational objectives and performance: A study of Iranian Telecommunication Industries*. *Management Science Letters*, 2(1), 235-244.

- Kothari, C.R. (2004). *Research methodology: methods and techniques*, (2<sup>nd</sup>ed.). New Delhi: New Age International (P) Limited.
- Mabhuye, P. (2013). *The performance of outsourced revenue collection system in Local Government Authorities: Case study of Kasulu District Council*. Unpublished MSc. In Finance Thesis, Mzumbe University.
- Madzibuko, D. (2016). *The impact of outsourcing of municipal billing system on revenue collection in South Africa: A case of selected Municipal Authorities*. Unpublished MPA Thesis, University of Pretoria.
- Mugenda, O., & Mugenda, A. (2003). *Research methodology: qualitative and quantitative techniques*. Nairobi: Acts Press.
- Mungai, V.W. (2015). *Effect of Information Technology Outsourcing on the Performance of Banks in Kenya: Application of the Balanced Scorecard*. *IOSR Journal of Business and Management*, 17(3), 83-89.
- Naresh, M. (2017). *Role of ICT service outsourcing in revenue generation among local authorities in India*. *International Journey of Business and Commerce*, 3(1), 87-102.
- Ochieng, J.A. (2012). *An analysis of effects of outsourcing strategies on organizational performance: A case of the Kenya Revenue Authority*. Unpublished MBA Thesis, Kenyatta University.
- Onaolupe, A. (2016). *Impact of IT outsourcing on the performance of commercial banks in Ghana*. *International Journal of Business and Management*, 3(4), 29-38.
- Pedersen, R., Kerly, C., & Humphrey, S. (2014). *The Technology Acceptance Model: An overview*. *Journal of Commerce and Management*, 11(3), 54-59.
- Saltaji, I.M. (2013). *Corporate governance and agency theory: How to control agency costs*. *Internal Auditing & Risk Management*, 32(1), 51-64.
- Tahiru, F., Agbesi, S., & Osei-Owusu, A. (2014). *Investigating the Challenges in Revenue Collection Process: The case study of Ghana AMA property rate collection*. *International Journal of Innovation and Scientific Research*, 11(2), 566-576.
- Wachira, W. (2016). *Viewing the impact of outsourcing from a Kenyan Perspective*. *Asian Journal of Management Science and Economics*, 3(1), 24-43.