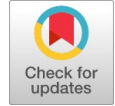# Contribution of Control Numbers System on Monitoring Revenue Collection at Kilimanjaro Christian Medical Centre, Tanzania

Elifamily P. Chambega, Nyanjige Mayala, Amembah A. Lamu Amos

Abstract: Effective management of revenue collections involves ensuring accuracy, accountability, and transparency in financial transactions, which are critical for maintaining public trust and organizational integrity. This paper sought to assess the contribution of the control number system in monitoring revenue collection at Kilimanjaro Christian Medical Center (KCMC) Hospital in Tanzania. The Diffusion of Innovation Theory was used to inform the study. The study adopted a concurrent research design with a mixed approach. The population of the study was 290 employees who are directly concerned with revenue collection at the Hospital. A sample of 153 respondents was obtained using a sample size calculator with a confidence level of 95%, a sampling error of 5%, and a population proportion of 30%. A semi-structured questionnaire was distributed to revenue collectors and administrators using a simple random sampling procedure. Content validity was used to ensure the validity of the instrument while a Cronbach alpha coefficient test was used to ensure the reliability of the instrument where a coefficient of 0.792 was obtained. Demographic data were analyzed using descriptive statistics presented in tables. Analysis of Variance (ANOVA) and a linear regression was used to test the significance of the variables. The findings revealed that most of the respondents admitted that the control number system influences the control of revenue collection by enabling the Hospital to increase revenue collection. It was further revealed that the control number system can provide an additional competitive edge in monitoring revenue sources and improving the quality of financial reporting. It is concluded that a control number system is important in monitoring revenue collection at KCMC Hospital. The study recommends that to improve the use of the control number system in control of revenue collection, it is crucial to conduct training for all revenue collectors and clients regularly so that the efficiency of the system is kept intact and to reduce associated risks.

Keywords: Control Number System, Monitoring, Revenue Collection, Debit Cards, Credit Cards, POS.

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I. INTRODUCTION

Revenue collection is a fundamental component of financial management for various organizations, including government agencies, businesses, and nonprofit entities. Effective management of revenue collections involves ensuring accuracy, accountability, and transparency in financial transactions, which are critical for maintaining public trust and organizational integrity [22]. Control numbers are unique identifiers assigned to transactions or financial documents to track and manage revenue collections. They are commonly used in financial systems to provide a means of identifying, recording, and reconciling revenue transactions [10].

The control number system has been implemented in various countries around the world, and its effectiveness in revenue collection has been a topic of discussion in the public finance literature. The use of control numbers is expected to enhance the accuracy of revenue collection by reducing errors and minimizing fraud [9]. The implementation of control numbers is also expected to improve the efficiency of revenue collection by reducing the time and resources required to process transactions [12].

In Africa, the use of control numbers in revenue collection started at different times in different countries [22]. For example, Kenya introduced the use of control numbers in 2004, while Uganda introduced it in 2014. In Tanzania, the use of control numbers in revenue collection was introduced in 2016. The Tanzania Revenue Authority (TRA) introduced electronic fiscal devices (EFDs) that generate control numbers for each transaction, which are used to track and monitor revenue collection.

Moreover, the implementation of control numbers is expected to reduce revenue leakages, and orderly practice on revenue collection efficiency in revenue collection. The use of control numbers is said to help identify taxpayers who are not complying with tax laws, and it can also help to track the movement of revenue through the tax system [5]. This, in turn, can increase transparency and accountability in revenue collection by reducing opportunities for corruption and other forms of malfeasance.

Control number plays a crucial role in accurately tracking and monitoring revenue transactions. As the major effect, it enhances transparency and accountability, reducing the risk of errors and revenue leakages [24].

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However, the implementation of control numbers is not without challenges. The use of control numbers requires a significant investment in technology and infrastructure, which can be a barrier to implementation in some countries [14]. The effectiveness of control numbers is also dependent on the quality of data management systems and the capacity of revenue collection agencies to manage and analyze large volumes of data.

Regarding revenue collection systems, control numbers have been implemented as unique identifiers for transactions to improve efficiency, accuracy, and transparency. While control numbers are widely used, it is essential to investigate their actual effect on monitoring revenue collection processes and assess their impact on various aspects of the revenue management system. The implementation of the control number system has been regarded as a means of enhancing revenue collection monitoring and improving compliance [16]. However, the effectiveness of the system in monitoring revenue collection is dependent on several factors, including the quality of data management systems and the capacity of revenue collection agencies to manage and analyze large volumes of data [8]. In the case of Tanzania, the implementation of the control number system has been met with mixed results, with some reports suggesting that the system has been effective in monitoring revenue and enhancing revenue collection while others suggest otherwise [23].

The Kilimanjaro Christian Medical Center is a zonal referral hospital located in the Kilimanjaro Region, in the northern zone of The United Republic of Tanzania established in 1971 by the Good Samaritan Foundation (GSF). The Hospital attracts patients from within Tanzania while it also attracts patients from outside the country, especially from the East African community (Kenya, Uganda, Rwanda, Burundi, Southern Sudan, the Democratic Republic of Congo) but also from the Southern African countries like Zambia, Mozambique and Malawi (KCMC Annual Report, 2022). As the Hospital has become a complex of a lot of specialized Clinics, a good system for management and monitoring of revenue collection is important. For instance, the Annual report for KCMC (2023) indicated that between December 2019 and December 2020 alone, about 6,450 cancer patients were referred though only 600 patients were expected when the cancer unit was introduced in December 2016. Continuous improvement of the unit was made every year to accommodate more patients. A traumatic brain injury patient registry was established in 2013 and had data on more than 4000 patients in 2018. About half of the patients in the registry were injured in traffic crashes, and about half of those were motorcyclists, many being boda boda riders. The statistics highlight the magnitude of clients the Hospital serves which has a direct implication on revenue collection from which monitoring is crucial.

The increase in the number of patients has made it so complicated to monitor revenue collection from the different clinics that are expanding at an annual rate of more than 15% (KCMC Annual Report, 2021). As a result, the Hospital decided to put in place several monitoring measures. Some of the measures are internally designed by departments while others are adoptions from the government perspective like the adoption of the control number system. Thus, this study was designed to assess the contribution of the control number system on monitoring revenue collection at KCMC Hospital.

A. Statement of the Problem

The introduction of the control number system at the Kilimanjaro Christian Medical Center (KCMC) aims to improve efficiency, accuracy, and effectiveness. There is a lack of comprehensive and empirical studies that specifically examine its contribution to revenue collection processes, financial accuracy, and overall efficiency. While the theoretical benefits and potential advantages have been outlined, there is limited empirical evidence to support these claims. Furthermore, the specific nuances and contextual factors that influence the effectiveness of control number systems are diverse in control of revenue collection settings remain relatively unexplored. Therefore, further research and empirical studies are needed to bridge this knowledge gap and provide a more robust understanding of the actual contribution of control number systems to control revenue collection.

Generally, the use of control numbers in revenue collection is a complex issue that requires careful analysis of the potential benefits and drawbacks of implementation [11]. The proposed study aims to contribute to the existing literature on revenue collection by providing a comprehensive analysis of the effects of control numbers on monitoring revenue collection. By examining the available evidence, this study will provide insights into the potential benefits and challenges of implementing control number systems, as well as recommendations for improving the effectiveness of control number systems in monitoring revenue collection at Kilimanjaro Christian Medical Centre (KCMC). Thus, the objective of the current study is to assess the contribution of the control numbers system on monitoring revenue collection at Kilimanjaro Christian Medical Centre Hospital.

B. Research Hypotheses

It was hypothesized that:

H_0 – The control number system has no significant contribution to monitoring revenue collection

H_1 – Control number systems have a significant contribution to monitoring revenue collection

II. LITERATURE REVIEW

A. Diffusion of Innovation Theory (DIT)

The study is informed by the Diffusion of Innovation (DOI) Theory which was developed by Rogers in 1962 and is also one of the oldest social science theories. It originated in communication to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. The result of this diffusion is that people, as part of a social system, adopt a new idea, behavior, or product. Adoption means that a person does something differently than what they had previously (i.e., purchase or use a new product, acquire and perform a new behavior, etc.). The key to adoption is that the person must perceive the idea, behavior, or product as new or innovative.

It is through this that diffusion is possible. The Diffusion of Innovation Theory is a robust framework for understanding how new ideas spread. It has been appraised on its strengths to systematically explain adoption stages, identification of key adoption factors, predictive ability, segmentation of adopter groups, wide applicability, practical guidance, adaptability, and research foundation [3]. The shortcomings of the theory have been explained to be its oversimplification of complex social and cultural factors.

The theory might not cover all complexities of adoption and might not fully address power dynamics and cultural influences [1]. The assumption of homogeneous adopter groups, neglect of resistance factors, exaggerated focus on rational decision-making, limited attention to post-adoption phases, lack of exploration of failures, potential promotion of technological determinism, a static view of communication, and difficulties in precise prediction of adoption rates are being regarded as the weaknesses of the theory. The strength of the theory however is that; it explores how innovations spread through social systems can happen. In the context of a control number system, it can help understand the stages of adoption, the characteristics of early adopters, and the factors influencing adoption rates. More importantly, relevance is the contribution to the monitoring of revenue collection at KCMC Hospital where adoption of the system to both workers of the hospital (revenue collectors) and users (clients) may improve the monitoring process of revenue collection if the adoption is effective.

B. Empirical Literature Review

The literature on control numbers and monitoring of revenue collection is abundant in many countries and scholars. Their study investigated the contribution of the control number system on revenue control through tax evasion in Pakistan [21]. The authors analyze the data from the Pakistan Revenue Automation Limited system, which introduced control numbers to improve tax administration. The findings revealed that the implementation of control numbers significantly reduces tax evasion and contributes to revenue control for the tax authority. The empirical study demonstrates that the use of control numbers in tax administration can effectively control revenue collection by reducing tax evasion. It highlights the importance of implementing control number systems as a measure to enhance revenue collection and promote compliance with tax regulations. Even though the study by [21] offers important insights into the impact of the control number on reducing revenue collection, it has some limitations, such as the fact that it was conducted in Pakistan, meaning that the results may not be generalizable to other nations, and the fact that the study methodology was not disclosed. Therefore, by looking into how the control number system controls revenue collection, the current study and the findings obtained fill the gap left by [21].

Examined the impact of control numbers on revenue collection in Pakistan [13]. The study used a quantitative research approach where collected primary data through surveys and interviews with key stakeholders in the telecommunication industry was used. The surveys were designed to assess the implementation of control numbers and their impact on revenue collection. The researchers utilized a

purposive sampling technique to select a sample of 150 companies from the population. The sample size was determined based on considerations of feasibility and representativeness. The data collected was analyzed using statistical techniques to draw meaningful conclusions. The findings revealed that the implementation of control numbers in the telecommunication industry resulted in significant revenue collection reduced leakages and enhanced tracking and monitoring mechanisms allowing better identification and prevention of fraudulent activities. The study has the limitation whereby the study relied on self-reported data from the surveys, which may be subject to response bias or inaccuracies. The sample size, although representative, was relatively small, which may affect the statistical power and generalizability of the findings. The current study was conducted to address this limitation where the sample size was big and data was collected through interviews and Questionnaires.

A study on Control numbers and revenue collection in the banking sector in India employed a mixed-methods research approach [6]. The study collected both quantitative and qualitative data from the banking sector. Quantitative data was obtained through surveys distributed to banking professionals, focusing on the implementation of control numbers and their impact on revenue collection. Qualitative data was gathered through in-depth interviews with bank officials and experts to gain deeper insights into the effectiveness of control numbers. The study used a random sampling technique and selected a sample of 200 banks from the population. The sample size was determined based on the feasibility and representativeness of the study. Findings The study revealed that banks that implemented control numbers reported enhanced tracking mechanisms, leading to a reduction in revenue losses due to theft and inefficient processes. Control numbers improved audit trails, enabling better identification of irregularities and ensuring greater transparency in financial transactions. The study however focused on a specific country's banking sector, limiting the generalizability of the findings to other regions or sectors. The qualitative findings may be influenced by the subjective interpretation of interviewees and researchers. The current study covered KCMC Hospital which is in the health institution sector and is in another country.

Investigated the control number system in revenue collection in Nigeria, River State for social internal control mechanisms [2]. The study used a mixed approach where qualitative and quantitative data were used. The study findings indicated that the control number system was well used to regulate and monitor revenue collection in River State which is a government local authority. Further findings indicated that, with the system being able to assign numbers to each transaction such as tax payments, licenses, permits, or fees, the mechanism ensured that every transaction is uniquely identified and accounted for in the system. These systems are crucial in ensuring that all financial transactions are recorded accurately and that the revenue collected aligns with the organization's financial goals.

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This study was done in a government local authority where operations are different from a health facility like KCMC.

A study on the role of internal control systems in the management of revenue in Nyeri County in Kenya using descriptive and inferential statistics [15]. The study found that control numbers help deter fraudulent activities. Since each transaction is assigned a unique identifier, it becomes difficult for individuals to create fake transactions or manipulate financial records. This discourages embezzlement and other forms of financial fraud. Further findings indicated that control numbers were used to verify the authenticity of financial documents or receipts. By cross-referencing the control number with the organization's records, it was possible to determine whether a document was genuine. This study was focused on internal control for the County's operations which may be subjected to many transactions covering different industries and government spending. The current study assessed the contribution of the control number system at KCMC Hospital in Tanzania which is a single organization located in only one region among many in the country.

III. METHODOLOGY

The study used a convergent research design with a mixed approach where both qualitative and quantitative data were collected. A more comprehensive grasp of the study subject can be achieved by combining qualitative and quantitative research methodologies. While quantitative approaches provide statistical analyses and results that may be applied to a larger population, qualitative methods offer more nuanced understandings of people's experiences, beliefs, and viewpoints. The population of the study included all 290 staff who are directly related to revenue collection including the ICT, finance personnel in different departments, revenue collectors, accountants, and procurement department. Thus, the sampling frame (the population from which the sample was drawn) is 290 (KCMC Annual Report, 2023). A sample size Calculator was used to obtain a sample size of 153 with a margin of error of 5%, a 95% confidence level, and a population proportion of 30%.

A proportional sampling was used in selecting a participant from the mentioned categories, followed by a random sampling to choose the participants from specific areas. This disparity in personnel counts among departments and units is the reason used to explain the variation. The approach described is the most direct among all probability sampling methods, as it just entails a single random selection and necessitates minimal prior knowledge about the population.

Primary data collected from respondents was collected using a questionnaire where respondents were visited and asked to fill in their responses. Secondary data was collected from audited reports of KCMC Hospital using a documentary review guide. The study used panel data for revenue collection covering the period 2021 to 2023 on the monitoring practices of revenue collection through the use of a control number system. Content validity ensured through the literature was used to assess whether the items included in the measurement tool represent the entire range of behaviors, skills, or attributes relevant to the concept being measured. The reliability of the instrument was ensured through test-retest measures. Collected data were analyzed by descriptive statistics, ANOVA, and regression analysis with the help of SPSS version 22. The outcome of the tested data/differentiated variables assisted the researcher in validating the study under investigation. The study used panel data modeling because they have more variability and allow to exploration of more issues than cross-sectional or time-series data alone [7]. These data have observations on the same units in several different periods, panel data give more informative data, more variability, less collinearity among the variables, more degrees of freedom, and more efficiency. Descriptive statistics, ANOVA, and regression analysis were used to analyze data to present the findings of the study.

IV. FINDINGS AND DISCUSSION

A. Profile of Respondents

The profile of the respondents is divided into four items: gender, age, education level, and level of experience. These characteristics were considered to be important because it is argued that the demographic characteristics of individuals tend to reveal the rate of acceptance of a particular innovation [20]. Results are presented in Table 1.

Table 1 with regards to gender, results indicated that male respondents were 54.25%, and female respondents were 45.75%. This indicates that males were more dominant among respondents who participated in the research. The results further show that 19.61% of the respondents were within the age group of 21-30 years, 28.10% were aged between 31-40 years, and 30.71% of the respondents were in the age group of 41 – 50 years of age while those above 55 years were 21.57%. The distribution of the age groups implies that the workforce is within the age category that can handle and monitor revenue collection for the Hospital.

Table 1: Profile of Respondents (N=153)

Variable	Description	Frequency	Percentage
Age	21 – 30 years	30	19.61
	31 – 40 years	43	28.10
	41 – 50 years	47	30.71
	51 and above years	33	21.57
Gender	Male	83	54.25
	Female	70	45.75
Education level	Certificate	7	04.57
	Diploma	23	15.03
	Advanced Diploma	37	24.18
	University Degree	46	30.07
	Master Degree	38	23.92
	PhD	03	01.96
Work Experience	3 – 5 years	18	11.76
	6 – 10 years	72	47.06
	Above 10 years	63	41.18

Source: Field Data, (2024)

Furthermore, the results indicate that employees who have attained a first degree were (30.07%), followed by those who have attained a Master's Degree who were 23.92% while those with advanced diploma education were 24.18%. Those with Certificates were 4.57%. Those with PhDs were only 3(1.96%) the distribution of education levels indicated that there is a mixture of all levels which implies that the Hospital has a good revenue collector who can understand the controls in the process.

Regarding the experience of control of revenue collection, 72(47.06%) had experience of 6 -10 years while those with experience of above 10 years were 63(41.18%) and those with experience of 3 – 5 years were 18(11.76%). The experience of the personnel at the hospital implies good experienced number of staff who can control revenue collection at the study area and be able to control the process due to their experience.

B. Control Numbers Systems on Monitoring of Revenue Collection

As mentioned earlier, the main objective of this paper is to examine the effects of the control number system on the monitoring of revenue collection. As monitoring of revenue collection was the dependent variable, the independent variables were: Point of Sale (PoS), mobile money, credit or debit card risks, online banking, and mobile money. In this regard, the objective of the study assess the relationship between the control number system and the control of revenue collection. Here, the independent variables were credit card risk, PoS fund diversion, and PoS fake receipts assessment. Table 2 illustrates the nature and strength of the relationship between the control number system and the monitoring of revenue sources.

Table 2: Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	.553ᵃ	.430	.112	3.21

· Source: Field Data, (2024)

a. Predictors: (constant), credit card risk, online banking, mobile money, PoS fake receipts, PoS fund diversion.

As per Table 2, 43% of the variability in monitoring of revenue sources is explained by control number variables, whereas the remaining 57% is explained by other factors that were not addressed in the regression model (R Square = 0.43). On the other hand, the fitted model was statistically significant at 5% ($p = 0.000$; $p < 0.05$), indicating that the combination of the mentioned variables significantly influences the monitoring of revenue sources; hence, the model fits the data used.

Table 3: ANOVA for Control Number System and Monitoring Revenue Sources

	Sum of Squires	Df	Mean Squares	F	Sig.
Regression	6.4431	4	1.99344	12.456	.000ᵇ
Residual	8.7763	54	1.35562		
Total	1.4662	57			

Source: Field Data, (2024)

b. Dependent variable: revenue sources monitoring.

Results in Table 3 indicate that the predictors have a statistically significant impact on the monitoring revenue sources. The low significance value (Sig.) of 0.000 indicates that the regression model is statistically significant, leading to the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_1). These results suggest that there is a significant contribution of the control number system monitoring on the revenue sources at KCMC Hospital.

The coefficients of the control number system on monitoring revenue sources presented in Table 4 were all significant. The results in the table show that PoS in fake assessment had a $\beta = .118$ at $p = 0.014$, while PoS fund diversion had a $\beta = .023$ at $p = 0.003$. These results indicate that both PoS fake assessment and PoS fund diversion had significant positive relationships with monitoring revenue sources. In addition, the findings of other variables were debit card risk ($\beta = .018$ at $p = 0.002$); online banking ($\beta = .105$ at $p = 0.000$); and mobile money ($\beta = .028$ at $p = 0.001$). Like the results on tax compliance, all values of βs indicate a positive and significant relationship between e-payment and monitoring of revenue sources.

Table 4: Coefficients for Control Number System and Monitoring Revenue Sources

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig. (a)
		B	Std. Error	Beta		
1	(Constant)	2.041	.557		2.6673	.000
	PoS Fake Receipts	.106	.122	.137	1.5522	0.013
	Assessment				1.6674	0.002
	PoS fund diversion	.012	.104	.018	1.2265	0.001
	Debit card risk	.017	.105	.016	1.1156	.000
	Online banking	.099	.107	.113	.101	0.001
	Mobile Money	.018	.103	.026	1.9987	.000

a. Dependent Variable: Monitoring Revenue Sources

The results also show that every unit increase of each control number variable led to an increase in the monitoring of revenue resources by a value equivalent to the beta coefficient. Therefore, it can be concluded that the control number system has a positive relationship with revenue collection in terms of monitoring the process of revenue. Having information on revenue sources via the control number system reduced data manipulation, monitoring and enforcement costs, and other outlays, which in turn increased revenue collection.

The study findings further imply that the control number system enhances the revenue sources' monitoring revenue by reducing monitoring and enforcement, manipulating information on revenue sources, and updating the number of revenue sources, increasing the amount of revenue collection. This finding concurs with the findings, which showed that using ICT in revenue collection enabled keeping records safe, low labor and administrative capacity, and promoted effective revenue and data processing [17]. Similarly, studies by [4] and [18] revealed that using ICT to cut down administrative costs eases access and retrieval of records, and simplifies monitoring, evaluation, and accuracy of information in the whole process of revenue collection including the monitoring part.

Using control numbers for the transactions, revenue agencies can track and monitor transactions more efficiently [17][25][26][27]. This tracking helps ensure that all transactions are properly recorded and that no revenue is lost due to oversight or errors. The study also indicated that control numbers served as a deterrent to fraud because they create a traceable record of transactions. If any discrepancies or irregularities are detected, revenue agencies can use control numbers to investigate further and identify potentially fraudulent activities. Thus, during audits, control numbers provide a systematic way to review transactions. Auditors can easily trace transactions back to their source using control numbers, which streamlines the auditing process and ensures greater accuracy in assessing revenue collection. Hence, control numbers to transactions increase accountability among government agencies that were under the study. It provided a clear record of each transaction, making it easier to hold parties accountable for their financial activities.

However, the findings of this study are in contrast with those of [19] who disagree that a cashless economy enables to reduction of cash-related fraud and promotes transparency and accountability in financial matters particularly in the revenue collection process. In addition, the findings corroborate the control theory which advocates that control number systems should be monitored to avoid divergences. This is achieved by removing uncertainties and errors to obtain accurate financial records. A control number system enables one to compare, compute, and correct errors, disclose omissions, and perform other related aspects of financial reporting as far as control of revenue collection is concerned.

V. CONCLUSION AND IMPLICATIONS

A. Conclusions

The introduction of the control number system in control of revenue collection for KCMC has transformed the collection system from a manual system that involved physical cash to a cashless system known as e-payment. Moreover, the usage of e-payment in revenue collection is rooted in the desire to promote standardization of bills by ensuring that all similar and same bills are treated equally and pay the same amount.

In this case, the usage of the control number system has a significant contribution to revenue collection and ultimately financial reporting of the funds collected. The study concludes that the use of control numbers at KCMC has managed to reduce financial irregularities and manipulation, promoted accuracy and transparency in financial information and enabled real-time updates of financial information that has benefitted the Hospital and the revenue collectors in the whole process as found in the study. It is further concluded that the use of control numbers in revenue collection has enhanced revenue collection, monitoring revenue sources, and enhancing the quality of financial reporting as in the risk areas in the collection process. Moreover, it is concluded that the presence of PoS, credit/debit cards, mobile money, and online banking have made revenue collection services more plausible compared to the period before the system was introduced at KCMC according to the findings of this study.

B. Recommendations

From the preceding conclusions, the study proposes the following recommendations to improve the efficiency and effectiveness of the control number system in monitoring revenue collection in the study area:

There is a need for TRA to train revenue collectors and clients on the use of control number systems in the process of monitoring revenue collection. This is important because the control number system is a crucial tool in achieving better revenue collection performance at KCMC Hospital.

Intention to use a control number system is influenced by experience and knowledge of the system. Thus, it is essential to create awareness of the existence of the system, how it works, and its benefits among clients of the Hospital to enhance its use and raise revenue collection.

Technical assistance should be available when defaults occur, particularly in the control number system and software debugs. Also, regular maintenance of computers, software, and other resources and system audits should be performed to ensure that there are no technical failures or manipulations.

DECLARATION STATEMENT

After aggregating input from all authors, I must verify the accuracy of the following information as the article's author.

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- **Funding Support:** This article has not been sponsored or funded by any organization or agency. The independence of this research is a crucial factor in affirming its impartiality, as it has been conducted without any external sway.
- **Ethical Approval and Consent to Participate:** The data provided in this article is exempt from the requirement for ethical approval or participant consent.
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- **Authors Contributions:** The authorship of this article is contributed equally to all participating individuals.

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