



IMPACT OF GFMS-DRIVEN FINANCIAL TRANSPARENCY ON STRATEGIC MARKETING DECISIONS IN GOVERNMENT AGENCIES

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Abstract

This study investigates the influence of Government Financial Management Information System (GFMS) factors on strategic marketing decision-making within government agencies. Specifically, it examines how data accessibility, financial transparency, budgetary control, and system integration affect the extent to which GFMS supports marketing functions. Grounded in public financial management and digital governance theory, the study adopts a quantitative approach, surveying 206 respondents across multiple government institutions. The research utilizes structural equation modeling and multiple regression analysis to test five hypotheses involving both direct and mediated relationships. Results indicate that strategic marketing decisions significantly predict the utilization of GFMS ($\beta = 0.602$, $p < 0.001$), confirming the system's evolving role in campaign planning, resource allocation, and performance reporting. Data accessibility also shows a strong positive impact on the effectiveness of marketing decisions ($\beta = 0.458$, $p < 0.001$), emphasizing the operational importance of real-time fiscal information. Financial transparency contributes significantly to GFMS expansion ($\beta = 0.527$, $p < 0.001$), driving public-facing reporting tools and accountability mechanisms. Additionally, budgetary control and transparency partially mediate the relationship between strategic marketing and GFMS use (indirect effect $\beta = 0.275$), while system integration moderates this relationship by strengthening cross-functional coordination (interaction $\beta = 0.312$, $p = 0.001$). These findings affirm that GFMS is no longer a passive financial ledger but a dynamic platform that enhances strategic decision-making, campaign legitimacy, and institutional coordination. The study offers practical insights for policymakers, system developers, and public managers seeking to align financial systems with communication and service delivery goals in the digital era.

Keywords

GFMS (Government Financial Management Information System); Financial Transparency; Strategic Marketing Decisions; Public Sector Governance; Government Agencies.

Citation:

Uzzaman, A., Akhter, T., Rahman, M. M., & Waliullah, M.. (2023). Impact of GFMS-driven financial transparency on strategic marketing decisions in government agencies. *Review of Applied Science and Technology*, 2(1), 85–112. <https://doi.org/10.63125/8nqhhm56>

Received:

January 20, 2023

Revised:

February 14, 2023

Accepted:

March 18, 2023

Published:

April 05, 2023



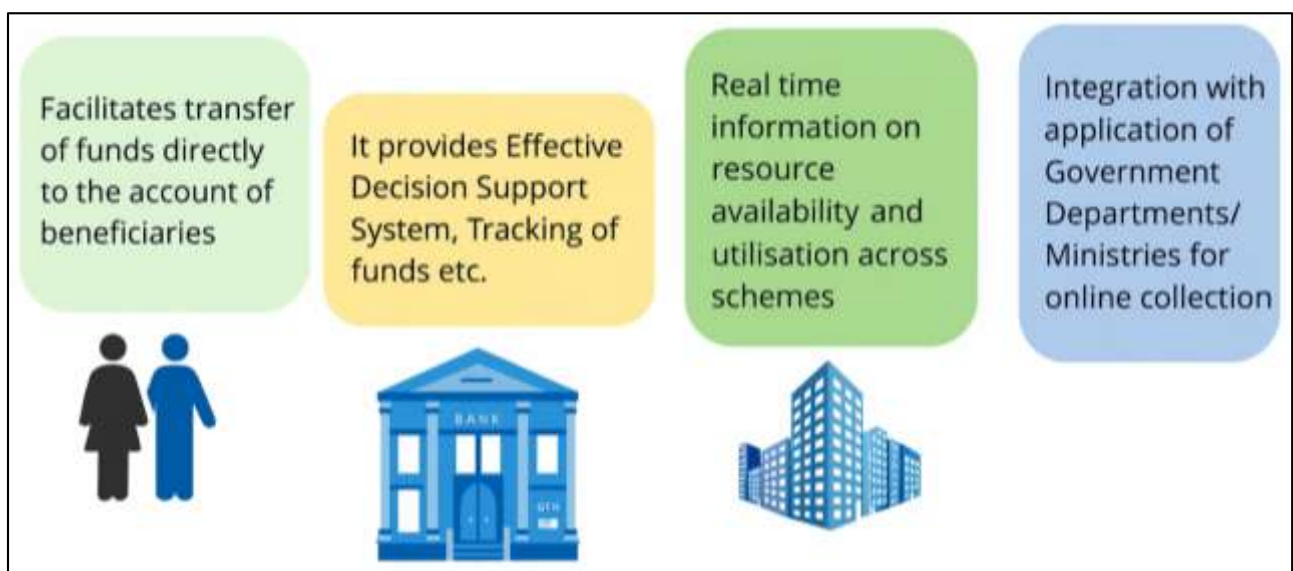
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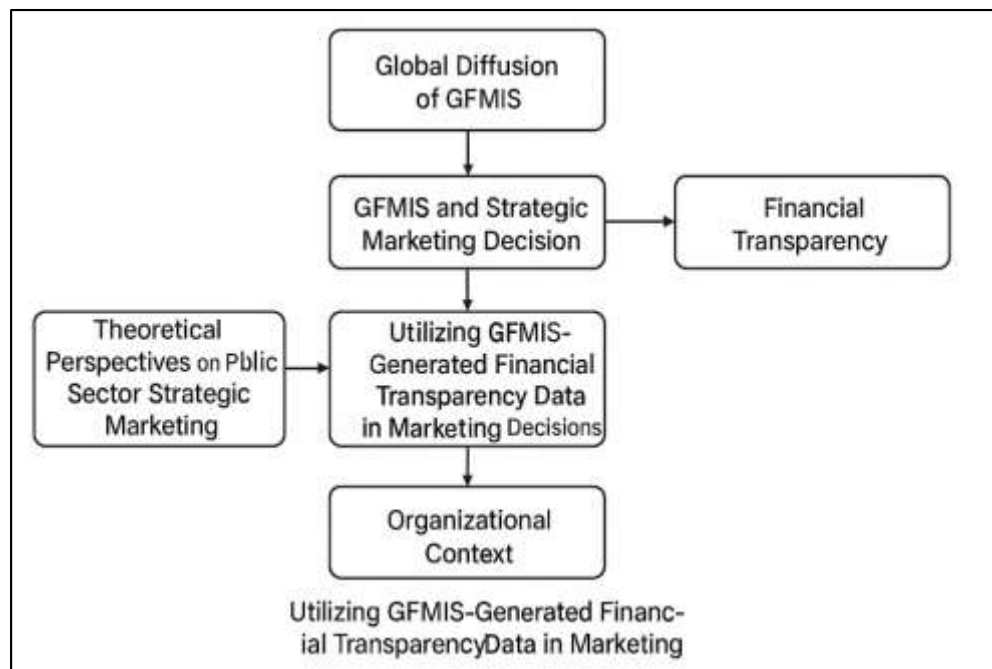
INTRODUCTION

Public financial management systems (PFMS) are integrated frameworks designed to ensure the effective, efficient, and accountable management of public resources (Pérez et al., 2016). A core technological advancement in this domain is the Government Financial Management Information System (GFMS), which represents a centralized, computerized platform used to automate, monitor, and report on government expenditures and revenues in real-time (Shaikh & Ali, 2020). The GFMS enables governments to improve budget execution, enforce financial discipline, and generate reliable fiscal reports. According to Carlin (2005), GFMS systems are engineered to consolidate financial data across ministries, departments, and agencies, thereby reducing fragmentation and enhancing policy coherence. These systems typically encompass budget formulation, cash management, accounting, procurement, and reporting modules. As stated by Pattanayak and York (2013), the strategic relevance of GFMS lies not only in administrative modernization but also in fostering greater transparency and efficiency in the public sector. Internationally, the adoption of GFMS reflects a commitment to good governance and accountability, as promoted by global institutions such as the IMF, World Bank, and OECD. GFMS is therefore not merely a technical reform but a governance instrument central to public sector transformation (Andrews, 2009).

Table 1: Key Functional Features of the Public Financial Management System (PFMS) (Source: civilsdaily.com)



The implementation of GFMS has gained global momentum, with countries across Asia, Africa, Europe, and Latin America investing heavily in its deployment to meet international standards of fiscal transparency and performance monitoring. In Korea, for instance, the dBrain system—a GFMS variant—facilitated seamless financial coordination across all government tiers, enhancing expenditure controls and enabling better policy responses. Similarly, in Uganda, the Integrated Financial Management System (IFMS) contributed to substantial improvements in expenditure accuracy and fraud mitigation. According to Piatti-Fünfkirchen and Schneider (2018), the diffusion of such systems is partly driven by the requirements of aid conditionality, particularly in developing countries where financial governance reforms are supported by donor agencies. In Latin America, Chile and Brazil have been recognized for their early adoption of GFMS, which has led to high levels of budget credibility and fiscal prudence (Khan et al., 2023). The European Commission also promotes the harmonization of financial management systems across its member states through public finance management reform programs. These international experiences demonstrate the systemic reach of GFMS, which is not only applicable to fiscal oversight but also to broader organizational decision-making processes. As the public sector increasingly adopts practices borrowed from private sector management, including strategic marketing, the availability of reliable, timely financial data has become a cornerstone for operational excellence.

Table 2: Logical Flow of GFMS Implementation and Its Strategic Influence on Public Sector Marketing Decisions

Financial transparency, as enabled by GFMS, is characterized by open access to comprehensive, timely, and reliable financial data concerning public sector activities. This notion extends beyond mere availability of data; it also includes the usability, relevance, and interpretability of financial information for stakeholders, including policymakers, media, and the public. Transparency mechanisms help reduce information asymmetries, deter corruption, and enhance government credibility (Islam et al., 2018). As Pérez and Hernández (2007) contends, transparency is a prerequisite for accountability, forming the bedrock of democratic governance. GFMS significantly contributes to this objective by providing digitized records of financial transactions, facilitating internal audits, and offering public portals for real-time expenditure tracking. For instance, in the Philippines, the Budget ng Bayan portal, powered by GFMS data, allows citizens to track government projects and their budgets (Brusca et al., 2016). In Nigeria, the Integrated Payroll and Personnel Information System (IPPIIS), which forms part of the broader GFMS reform, has led to the removal of over 70,000 ghost workers, thus enhancing fiscal transparency and efficiency. Moreover, international organizations such as the IMF's Fiscal Transparency Code emphasize the centrality of digital financial infrastructure in ensuring transparent governance. These initiatives underscore the role of GFMS as a pivotal enabler of transparency within complex bureaucratic environments.

Government agencies worldwide are increasingly adopting strategic marketing practices to optimize service delivery, build public trust, and enhance citizen engagement (Martí & Kasperskaya, 2015). Unlike traditional public communication, strategic marketing in the public sector entails data-driven planning, audience segmentation, value proposition design, and performance evaluation. According to Pérez et al. (2016), the new public management paradigm has encouraged public agencies to operate with a customer-centric orientation, where branding, stakeholder engagement, and competitive positioning are prioritized. The implementation of digital tools like GFMS provides a rich repository of financial data that can be leveraged in making informed marketing decisions, including budget allocation, campaign planning, and impact assessment (Shaikh & Ali, 2020). For example, financial reports can inform cost-effectiveness analyses of communication strategies or help justify marketing expenditures in budget hearings. In this context, GFMS acts as a strategic asset, enabling evidence-based decision-making within the marketing function of government institutions. As argued by Khan et al. (2023), financial intelligence derived from integrated systems enhances collaborative capacity, allowing marketing units to align better with procurement, finance, and program delivery departments. The convergence of fiscal data and marketing strategy thus represents a paradigm shift in public sector management.

The decision-making process in public sector marketing is inherently complex, involving political considerations, regulatory constraints, and stakeholder scrutiny (Islam et al., 2018). However, the availability of high-resolution financial data through GFMS has the potential to simplify and rationalize these decisions. Financial transparency allows marketing managers to align their strategies with budgetary realities and statutory priorities, reducing the likelihood of overcommitment or misallocation (Pérez & Hernández, 2007). For instance, clear visibility into disaggregated expenditure data can help identify underutilized funds, enabling their reallocation to more impactful campaigns. Furthermore, transparent financial systems foster intra-agency accountability, compelling marketing units to demonstrate value-for-money and results-based management. As reported by Alsharari and Youssef (2017), performance-informed budgeting—enabled by GFMS—creates feedback loops that improve strategic coherence across departments. Marketing performance indicators can be directly tied to budget execution data, enhancing strategic alignment and institutional learning. These dynamics are observable in countries like South Africa, where the Basic Accounting System provides marketing departments with expenditure benchmarks to guide their media planning and public engagement initiatives.

While GFMS contributes to institutional transparency and marketing decision-making, it also interacts with a broader ecosystem of public sector reforms, including decentralization, digital transformation, and participatory governance (Islam et al., 2018). In decentralized systems, GFMS facilitates the vertical and horizontal flow of financial information, enabling regional marketing teams to coordinate with central ministries. This coordination is vital in campaigns involving public health, disaster response, or tax compliance, where timing and fiscal precision are crucial. Moreover, GFMS supports inter-agency collaboration by offering interoperable data architectures, allowing marketing units in different agencies to synchronize their activities and pool resources. In e-government environments, GFMS can be integrated with other platforms like CRM systems, procurement modules, and social media dashboards to form a holistic marketing intelligence infrastructure (Pérez & Hernández, 2007). These integrations facilitate real-time data sharing and cross-validation, leading to smarter targeting and risk mitigation. The dynamic interplay between GFMS and other reform pillars exemplifies the multifaceted utility of financial information systems beyond accounting. As observed in Indonesia, where the SPAN system integrates GFMS with performance monitoring, marketing departments within ministries use this linkage to tailor their messages to evolving budgetary contexts. These developments affirm that GFMS is embedded in a larger fabric of public sector innovation.

The strategic application of GFMS-generated financial transparency data in marketing decisions also varies based on organizational culture, institutional maturity, and political will. In high-capacity institutions, marketing departments are often empowered with analytical tools and interdepartmental access, enabling deeper insights from GFMS outputs. They use this data not only for planning but also for justifying marketing expenditures, negotiating with oversight bodies, and benchmarking performance across agencies. In contrast, in resource-constrained settings, the use of GFMS data in marketing remains underdeveloped due to technical, human, or procedural limitations. According to Alsharari and Youssef (2017), the effectiveness of GFMS in supporting non-financial functions depends on institutional arrangements, such as the presence of cross-functional teams or a culture of evidence-based decision-making. Training, system usability, and managerial incentives are also determining factors. Furthermore, differences in regulatory environments influence the degree of data disclosure permitted, which in turn affects how marketing strategies can be adapted or evaluated (Brusca et al., 2016). Institutional contexts thus shape the extent to which GFMS can serve as a strategic tool in marketing, highlighting the need for an integrated governance framework that bridges financial and non-financial domains.

The primary objective of this study is to evaluate how the implementation of Government Financial Management Information Systems (GFMS) influences strategic marketing decisions within government agencies. The focus is on understanding how financial transparency, made possible through GFMS platforms, contributes to the formulation, execution, and evaluation of public sector marketing strategies. The research seeks to determine whether the availability and accessibility of real-time financial data facilitate more efficient resource allocation, enhance accountability in marketing expenditure, and support evidence-based communication planning across departments. By examining various government agencies with established GFMS infrastructures, the study aims to identify operational linkages between financial intelligence and marketing performance. It further

seeks to uncover patterns in how agencies utilize fiscal reports to inform campaign design, audience segmentation, and media selection. The study also aims to analyze how financial transparency affects stakeholder trust, interdepartmental collaboration, and institutional responsiveness in relation to public engagement efforts. Another dimension of the objective involves assessing how the structural design of GFMS enables or restricts marketing units from accessing disaggregated budget data that is relevant for planning and reporting. Additionally, the study explores whether standardized financial data increases cross-functional coordination and whether marketing managers are trained or equipped to translate such data into actionable insights. The research is intended to bridge the gap between financial technology implementation and non-financial strategic decision-making in the public sector, with a particular focus on marketing as a critical function in citizen-facing services. It is also designed to highlight the operational challenges and organizational dynamics that influence the extent to which GFMS outputs are incorporated into marketing processes. Ultimately, the study endeavors to generate empirical findings and conceptual clarity on the integration of financial transparency mechanisms into the strategic communication apparatus of government institutions.

LITERATURE REVIEW

The evolution of financial management systems in the public sector has transformed the landscape of governmental accountability, transparency, and strategic decision-making. Central to this transformation is the emergence of the Government Financial Management Information System (GFMS), a technology-driven framework for capturing, recording, and disseminating financial data across all levels of government. This literature review critically examines the theoretical and empirical foundations surrounding GFMS implementation, the construct of financial transparency, and the interplay between fiscal visibility and strategic marketing practices within public institutions. Existing research spans disciplines such as public financial management, e-governance, organizational communication, and strategic marketing, but a notable gap persists in integrating these perspectives to analyze how financial data systems inform marketing functions in government agencies. The purpose of this literature review is to synthesize and evaluate academic and policy-driven contributions that address GFMS as an enabler of transparency and its consequential impact on marketing-related strategic choices. The review proceeds thematically, beginning with the historical development and global adoption of GFMS, followed by an exploration of transparency as a public value, and then delving into literature on strategic marketing in the public sector. Subsequent sections analyze how financial data informs marketing performance, the challenges of cross-functional data integration, and the institutional dynamics that shape decision-making in government communication. This framework ensures a comprehensive understanding of how financial systems intersect with marketing logic in the public domain, laying a foundation for empirical analysis in the later sections of the study.

What is GFMS?

The Government Financial Management Information System (GFMS) emerged as a response to the need for greater control, accuracy, and efficiency in public financial administration. Initially conceived as a modernization effort to replace fragmented, paper-based accounting practices, GFMS evolved into a unified digital infrastructure integrating core financial operations such as budgeting, accounting, cash management, procurement, and financial reporting. [Martí and Kasperskaya \(2015\)](#) described GFMS as a vital mechanism for improving fiscal discipline, enabling the systematic capture and consolidation of financial transactions across ministries and agencies. The core functionality of GFMS lies in its ability to provide real-time financial information to decision-makers, thereby enhancing oversight and reducing fiduciary risks. Countries such as Tanzania and Ghana, where GFMS deployment was championed by donor-supported reforms, recorded notable improvements in the reliability of financial records and timeliness of reports. In South Korea, the development of the dBrain system, an advanced GFMS, enabled full integration of the budgetary cycle and strengthened interdepartmental fiscal coordination. Meanwhile, Uganda's experience with IFMS showcased how digital financial tracking improved expenditure control and reduced irregularities in payroll systems. The significance of GFMS in enhancing public sector efficiency also lies in its role as an enabler of broader governance reforms, including results-based management and performance-informed budgeting ([Schäfer et al., 2021](#)). By aligning budget execution with reporting and control frameworks, GFMS contributes to the institutionalization of sound public financial management practices. Moreover, its implementation in post-conflict and transition

economies, such as Afghanistan and Liberia, demonstrated its utility in rebuilding fiscal structures and restoring donor confidence (Islam et al., 2018). GFMS, therefore, has established itself as both a technical system and a policy tool for achieving fiscal accountability and enhancing state capacity.

Table 3: Conceptual Framework of GFMS



The deployment of GFMS across diverse administrative contexts has underscored its role as a transparency-enabling technology in the public sector. Financial transparency, defined as the timely, accessible, and comprehensive disclosure of government financial information, has been increasingly operationalized through digital systems like GFMS. The International Monetary Fund emphasized that transparency entails more than the mere publication of data; it involves structured dissemination that facilitates public understanding and scrutiny. GFMS supports this by offering standardized and auditable financial data, often linked to public-facing dashboards that allow stakeholders to trace expenditures and budget allocations. In the Philippines, for example, the Budget ng Bayan initiative provided citizens with real-time access to national budget implementation data through GFMS infrastructure (Andrews, 2009; Subrato, 2018). Nigeria's implementation of the Integrated Payroll and Personnel Information System (IPPIIS), as a GFMS module, resulted in the elimination of tens of thousands of ghost workers, demonstrating a direct transparency outcome. Likewise, Brazil's SIAFI system has served as a model of fiscal openness, allowing civil society and the media to monitor financial operations with minimal latency. GFMS facilitates transparency by minimizing off-budget transactions, enhancing the comprehensiveness of budget coverage, and enabling automated internal controls that reduce discretion in spending. Furthermore, these systems create a permanent audit trail, improving compliance with procurement and expenditure norms. In donor-supported environments, such as Malawi and Mozambique, GFMS implementations have often been tied to aid conditionality, where transparency requirements were integral to maintaining budget support (Uddin et al., 2022; Ara et al., 2022). Beyond technical gains, the system's institutional impact has included greater responsiveness to legislative oversight and enhanced capacity of audit institutions. These developments have collectively reinforced GFMS as a foundational pillar of fiscal transparency and democratic accountability in the modern public sector.

In addition to its technical contributions to financial control and reporting, GFMS has demonstrated strategic value by informing and shaping high-level decision-making processes within government institutions. The availability of real-time, accurate financial data enables public managers to align expenditures with policy priorities and respond dynamically to operational needs. According to (Akter & Ahad, 2022; Pérez & Hernández, 2007), performance-informed budgeting frameworks rely heavily on timely financial data, which systems like GFMS generate and manage systematically. In South Africa, the Basic Accounting System has allowed sectoral departments to align operational plans with quarterly budget performance, fostering a culture of results-focused governance. Additionally, in countries like India, integration between GFMS and treasury systems has allowed for cash forecasting and timely fund releases, thus improving inter-agency coordination (Alsharari & Youssef, 2017; Rahaman, 2022). These systems have facilitated multi-year budgeting and fiscal forecasting, offering public managers a forward-looking view of resource availability and programmatic trade-offs. The interconnectivity between GFMS and other administrative modules, such as human resources and procurement systems, has enabled comprehensive institutional planning where expenditure patterns are examined alongside staffing and contract flows (Hasan et al., 2022; Pérez et al., 2016). In practice, this has empowered public administrators to make trade-off decisions based on verified financial trends rather than political intuition or fragmented reports. In Ghana, the GIFMS platform provided regional offices with access to budget ceilings and expenditure projections, allowing sub-national units to plan local projects with financial realism. Moreover, international development agencies have increasingly recognized GFMS data outputs as reliable sources for policy evaluation and program monitoring, thereby influencing donor-country relations and development finance flows. The convergence of transactional data and strategic insight offered by GFMS has become integral to evidence-based decision-making frameworks in public administration (Tawfiqul et al., 2022).

Although traditionally confined to financial administration, GFMS has begun to show relevance in the domain of strategic marketing, especially as government agencies adopt modern communication and citizen engagement approaches. Strategic marketing in the public sector emphasizes audience segmentation, value proposition alignment, and performance-driven messaging, all of which benefit from accurate and disaggregated financial data. Marketing functions increasingly rely on expenditure reports to plan campaign budgets, evaluate outreach efficiency, and negotiate for resources with internal stakeholders. In high-capacity public institutions, GFMS-generated financial data is used to justify marketing initiatives by linking them directly to service delivery performance metrics (Khan et al., 2023; Hossen & Atiqur, 2022). For instance, in the United States, agencies using enterprise resource planning systems have incorporated financial insights into public health campaign scheduling and media purchasing decisions. In the United Kingdom, local government communication teams have aligned media outreach plans with quarterly budget execution reports, ensuring that spending patterns match service promotion goals (Sazzad & Islam, 2022). The ability of GFMS to present real-time snapshots of marketing expenditures enables campaign recalibration and facilitates the use of cost-effectiveness metrics. Furthermore, interdepartmental coordination between finance and marketing units has improved in organizations where GFMS supports cross-functional access and reporting. In Chile, for example, fiscal data transparency enabled through SIGFE has allowed health ministries to correlate marketing budget execution with vaccination uptake across regions. The integration of financial transparency into marketing decisions reflects a broader managerial transformation wherein communication strategy is no longer viewed as peripheral but as fiscally accountable and outcome-oriented (Sohel & Md, 2022). Such cases illustrate that GFMS is not only reshaping financial control but is also emerging as a tool of strategic value in service delivery narratives, public perception management, and trust-building campaigns executed by government agencies (Akter & Razzak, 2022).

Global Diffusion of GFMS in Public Sector Management

The widespread adoption of Government Financial Management Information Systems (GFMS) has been significantly influenced by the global push for improved fiscal transparency, efficient public resource management, and alignment with international public finance standards. Global institutions such as the International Monetary Fund (IMF), World Bank, and Organisation for Economic Co-operation and Development (OECD) have played pivotal roles in standardizing expectations and offering technical guidance for the adoption of GFMS in diverse administrative contexts. These reforms have been particularly emphasized in the context of Public Financial

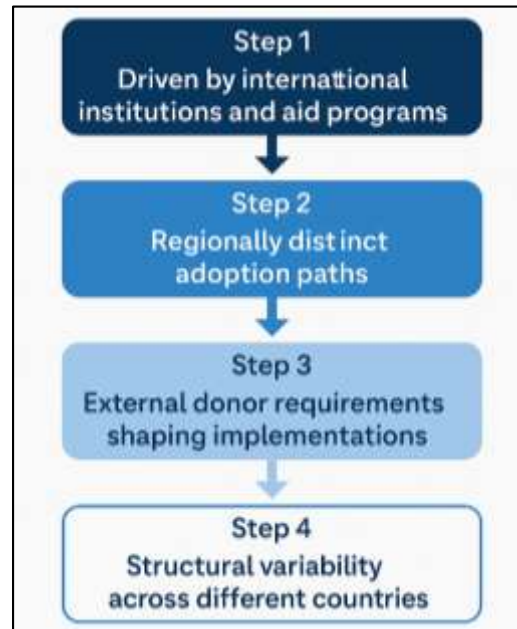
Management (PFM) modernization programs aimed at enhancing governance, controlling corruption, and strengthening service delivery capacity. [Islam et al. \(2018\)](#) noted that fiscal management reforms initiated under IMF-supported programs often placed the development of GFMS as a top priority, especially in aid-dependent economies. Moreover, initiatives like the Public Expenditure and Financial Accountability (PEFA) assessments have embedded GFMS indicators into their scoring frameworks, further institutionalizing the reform across developing countries. Countries such as Rwanda, Tanzania, and Cambodia incorporated GFMS as part of broader PFM strategies to ensure budget credibility and enhance internal controls. The World Bank's Financial Management Information Systems Handbook has served as a major reference for countries designing system architectures aligned with both operational needs and donor requirements. As such, international donor pressure, conditionality tied to budget support, and performance benchmarking have accelerated the global diffusion of GFMS. These external mandates, coupled with internal demands for accountability and modernization, have catalyzed reforms in low-income, fragile, and middle-income countries alike, embedding GFMS within national development agendas ([Adar & Md, 2023](#); [Pérez & Hernández, 2007](#)).

The diffusion of GFMS has followed regionally distinct paths, reflecting differences in administrative heritage, technological capacity, and reform sequencing. In Asia, countries such as South Korea and Thailand led early adoption, with South Korea's dBrain system regarded as a benchmark for integration and real-time processing across ministries. The system linked all budgetary, accounting, and treasury operations, allowing seamless fiscal control and data visibility. Meanwhile, in India, the Public Financial Management System (PFMS) supported fund tracking across centrally sponsored schemes, improving grant release efficiency and expenditure accuracy ([Brusca et al., 2016](#); [Qibria & Hossen, 2023](#)). African nations such as Ghana and Uganda implemented Integrated Financial Management Information Systems (IFMIS) as part of World Bank-funded reform projects aimed at tackling misappropriation and budget fragmentation ([Andrews, 2009](#); [Istiaque et al., 2023](#)). Uganda's IFMS, rolled out in multiple phases, significantly improved payroll integrity and expenditure reporting, although challenges with system connectivity and change management were recurrent. In Latin America, Chile's SIGFE and Brazil's SIAFI have exemplified high-functioning GFMS frameworks, integrating budget execution, procurement, and treasury modules while offering public-facing portals to reinforce transparency ([Akter, 2023](#); [Pérez & Hernández, 2007](#)). In Eastern Europe and Central Asia, post-socialist transitions necessitated rapid fiscal restructuring, prompting the adoption of GFMS models that supported decentralized reporting and donor harmonization, as seen in Moldova and Armenia. In the Middle East, countries such as Jordan and Egypt integrated GFMS into broader e-government platforms to enhance expenditure tracking and align with International Public Sector Accounting Standards (IPSAS). The diversity of these regional models highlights the flexibility of GFMS frameworks, with each country tailoring its design and rollout strategy based on institutional readiness, governance challenges, and reform priorities.

The role of external donors and financial institutions has been instrumental in shaping the diffusion of GFMS across low- and middle-income countries. Multilateral and bilateral donors have often linked budget support and aid disbursements to the adoption of financial transparency tools, making GFMS a conditional component of reform agendas ([Alsharari & Youssef, 2017](#); [Masud, Mohammad, & Ara, 2023](#)). In countries such as Malawi, Mozambique, and Sierra Leone, GFMS implementation formed part of Structural Adjustment Programs and Public Expenditure Management initiatives backed by the World Bank and IMF ([Macinatti & Anessi-Pessina, 2014](#); [Masud, Mohammad, & Sazzad, 2023](#)). These systems were not only funded but also designed in consultation with donor technical teams, ensuring that reporting outputs aligned with aid accountability requirements. The EU and DFID have also encouraged the integration of GFMS into medium-term expenditure frameworks (MTEFs), especially in Sub-Saharan Africa and South Asia, to ensure timely disbursement of sectoral budgets and reduce fiduciary risks ([Hariyati et al., 2019](#); [Hossen et al., 2023](#)). Donor-supported assessments such as Country Financial Accountability Assessments (CFAAs) and Public Expenditure Reviews (PERs) further reinforced the prioritization of GFMS by identifying information gaps and prescribing system upgrades ([Galera & Bolívar, 2011](#); [Shamima et al., 2023](#)). In fragile states such as Afghanistan and Liberia, the adoption of GFMS provided a foundation for restoring fiscal credibility and managing external grants with traceability and auditability ([Munir et al., 2013](#); [Ashraf & Ara, 2023](#)). These externally driven implementations often faced constraints in local ownership, with system sustainability relying heavily on continued donor involvement. Nonetheless, they facilitated

significant improvements in budget execution reporting, fund disbursement speed, and procurement controls. The donor-community emphasis on GFMS thus reflects a convergence of development objectives and fiduciary interests, with system diffusion advancing both governance outcomes and international partnership frameworks.

Table 4: Stepwise Global Diffusion and Implementation Models of GFMS



GFMS systems have exhibited significant structural variability across countries, shaped by legacy systems, technological infrastructure, and administrative hierarchies. Some governments have adopted centralized, fully integrated models that consolidate budgeting, accounting, and treasury operations within a single platform, as seen in South Korea's dBrain and Brazil's SIAFI (Ma & Tayles, 2009). Others have pursued modular approaches, introducing standalone components—such as payroll or procurement modules—that are later interfaced through data exchange protocols, as evident in the Ghana GIFMS initiative (Munir et al., 2013; Sanjai et al., 2023). Structural choices often depend on institutional maturity, with countries possessing strong ICT ecosystems favoring enterprise-level integration, while others with decentralized bureaucracies opt for more gradual, federated rollouts. In many African and Southeast Asian countries, GFMS development began with treasury-focused automation and later expanded to include commitment controls, payroll systems, and procurement tracking (Allen, 2009). Additionally, the level of system customization has varied widely, with some nations adopting off-the-shelf software like FreeBalance or Oracle ERP, while others developed proprietary systems in collaboration with national IT agencies. This diversity has led to differing results in terms of interoperability, user accessibility, and reporting consistency. In several Eastern European countries transitioning from command economies, legacy data structures posed integration barriers, requiring significant investment in data migration and institutional training (Brusca et al., 2016; Akter et al., 2023). Furthermore, institutional adaptation to GFMS has been uneven, with system uptake often delayed by resistance to change, lack of technical capacity, or absence of legislative support. Nevertheless, across these diverse structural models, GFMS systems have gradually embedded financial transparency norms into the operational routines of ministries and subnational entities. The wide-ranging institutional adjustments associated with GFMS adoption illustrate the system's adaptability and underscore the multifaceted nature of its global diffusion.

GFMS and Strategic Marketing Decision

The intersection between financial transparency and strategic marketing within public sector organizations has gained scholarly traction as government agencies increasingly rely on financial intelligence to shape communication and outreach activities. The Government Financial Management Information System (GFMS) provides an institutional framework for this integration by centralizing real-time, accurate, and disaggregated budgetary data across departments

(Humphrey et al., 2006). This transparency infrastructure allows marketing departments to ground their strategic decisions in fiscal realities, especially when planning public awareness campaigns, allocating communication budgets, or evaluating outreach cost-effectiveness. The alignment of marketing goals with expenditure ceilings and fund utilization reports improves resource allocation efficiency and contributes to institutional credibility. In contexts such as Brazil's SIAFI and Chile's SIGFE, marketing units have relied on GFMS portals to access budgetary data in near real time, enabling adaptive decision-making and coordinated campaign launches. Public health agencies, for instance, used expenditure tracking to sequence health promotion activities based on fiscal disbursements. GFMS has also supported the transparent communication of program costs to citizens, reinforcing public trust in agency-led marketing efforts. In Ghana and Uganda, finance and communications teams have used GFMS reports collaboratively to align marketing interventions with spending cycles and to substantiate budget proposals before parliamentary committees (Pina et al., 2010). This convergence illustrates how financial transparency tools serve as strategic enablers of marketing precision, enhancing the responsiveness and integrity of public sector communication.

Table 5: GFMS Integration to Strategic Marketing Decisions



GFMS enhances the strategic scope of public sector marketing by embedding fiscal accountability and operational visibility into campaign planning processes. Marketing decisions in government agencies often hinge on the availability of financial intelligence that can inform media purchasing, resource prioritization, and performance benchmarking. Real-time financial reports generated by GFMS provide marketing teams with granular insights into approved budget lines, committed expenditures, and remaining balances, thereby facilitating evidence-based campaign planning. In countries like South Africa and India, these systems have allowed public sector marketers to adjust campaign timelines and content based on cash flow projections and procurement schedules. This strategic use of GFMS data is particularly critical in time-sensitive public campaigns such as voter registration drives, public health alerts, or emergency response messaging, where fiscal timing affects message delivery. Government agencies in Kenya and the Philippines have incorporated GFMS dashboards into their marketing workflows to track campaign expenditure in real time, thus enabling mid-course corrections and cost-efficiency assessments. Furthermore, access to disaggregated financial data enables marketing departments to isolate promotional costs from programmatic expenses, ensuring budgetary clarity during audits or external reviews. The collaboration between finance and communication units has also been strengthened by the common reference point GFMS provides, reducing conflicts over fund usage and enhancing strategic alignment across departments. In Latin America, GFMS-supported campaign monitoring has enabled ministries to track regional disparities in outreach expenditures and reallocate funds accordingly, ensuring equity and representativeness in government messaging (Bogt, 2008). The capability of GFMS to offer fiscal context throughout the campaign lifecycle reinforces its role as an indispensable tool in government marketing strategy.

Marketing accountability in government settings has historically suffered from vague benchmarks, undocumented expenditures, and politicized decision-making. The adoption of GFMS provides a

structural solution by offering verifiable financial metrics that public sector marketers can use to demonstrate performance and justify resource utilization. Performance-based budgeting, which integrates financial and outcome indicators, is enabled by the data architecture of GFMS, facilitating marketing audits and enhancing strategic clarity (Galera & Bolívar, 2011). In jurisdictions where marketing expenditures are scrutinized for efficiency and public value, GFMS facilitates transparency by delineating marketing-related costs within programmatic budgets. This clarity allows communications managers to associate marketing outputs with measurable inputs, fostering a culture of fiscal accountability. For example, in Chile's Ministry of Health, financial performance data drawn from GFMS was used to assess regional variations in vaccination campaign costs, thereby informing adjustments to both budget allocations and communication tactics. Similarly, in Thailand, GFMS contributed to internal marketing audits, which examined budget burn rates and campaign return-on-investment across provincial offices. These audit processes were supported by digital traceability features that captured expenditure patterns and vendor payments, reducing opportunities for misreporting or inefficiency. Additionally, the use of GFMS performance dashboards enabled marketing divisions in countries like Rwanda and Jordan to submit financial progress reports aligned with communication objectives to ministerial steering committees. The emphasis on outcome-driven resource use transformed marketing from a discretionary function into a financially accountable and strategically guided activity. GFMS thus plays a dual role as a monitoring tool and a performance amplifier, ensuring that marketing investments are transparent, traceable, and aligned with organizational goals.

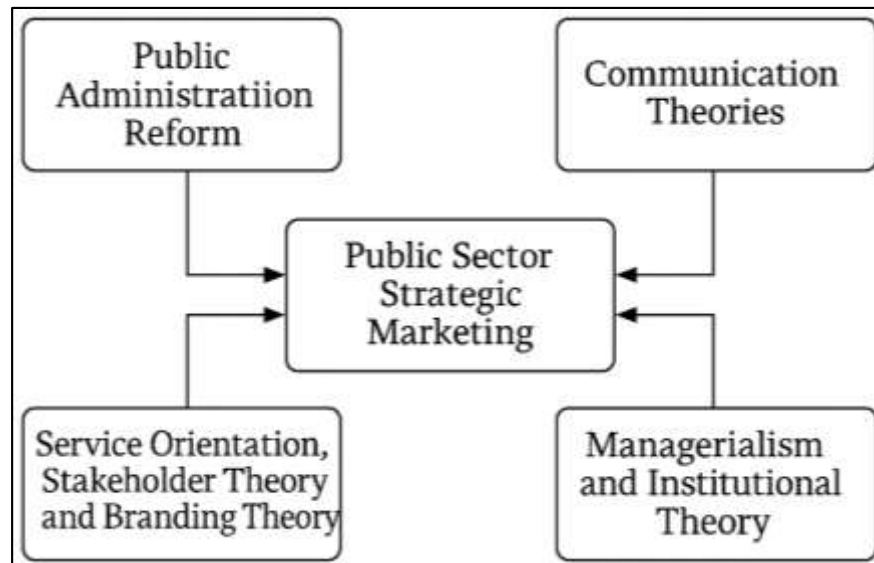
The integration of GFMS into strategic marketing functions has also influenced internal organizational dynamics and interdepartmental collaboration. Traditionally, marketing units in government agencies operated in silos, with limited access to real-time financial data and constrained interaction with finance or procurement teams. The implementation of GFMS has shifted this dynamic by fostering cross-functional data sharing and encouraging interdepartmental dialogue on budget execution and campaign planning (Munir et al., 2013). In systems such as Korea's dBrain and India's PFMS, marketing professionals have gained access to real-time dashboards, expenditure reports, and vendor payment schedules, which facilitate synchronized planning with finance departments. This access has strengthened communication between administrative and operational units, particularly in agencies managing large-scale outreach initiatives such as census campaigns or environmental awareness drives. Marketing departments in Nigeria, for instance, reported improved campaign efficiency after being integrated into IPPIS and GIFMS platforms, which allowed them to anticipate disbursement cycles and align with procurement workflows (Ellwood & Newberry, 2007). Moreover, the integration of GFMS data into management information systems (MIS) and performance scorecards has enabled top-level executives to monitor marketing effectiveness across regional and functional divisions. These integrations fostered a culture of collaboration in which financial literacy among marketers improved and finance departments became more receptive to the strategic imperatives of public communication. In turn, the transparent reporting environment created by GFMS incentivized joint planning sessions and performance reviews that included both finance and marketing stakeholders. The structural realignment triggered by GFMS thus contributed not only to better financial management but also to a more integrated and strategically coherent public sector marketing framework.

Theoretical Perspectives on Public Sector Strategic Marketing

The development of public sector marketing as a theoretical construct emerged from the broader discourse on public administration reform, particularly the shift from traditional bureaucratic models to managerial approaches characterized by responsiveness, efficiency, and stakeholder orientation. Early debates on the applicability of marketing to government functions questioned its relevance in non-competitive and politically constrained environments (Cuadrado-Ballesteros et al., 2021). However, subsequent scholars advanced the concept by redefining marketing as a value exchange process relevant to both public and private sectors. The new public management (NPM) movement reinforced this view, advocating for customer-centric service delivery, performance measurement, and managerial autonomy within public institutions. Within this paradigm, marketing theory in the public sector emphasized strategic planning, target audience segmentation, needs assessment, and measurable communication outcomes. The integration of marketing into public service frameworks was also facilitated by the emergence of social marketing, which provided a normative foundation for influencing public behavior in areas such as health, safety, and

environmental conservation (Grossi & Steccolini, 2015). Strategic public sector marketing subsequently evolved to encompass both internal and external dimensions, including employee alignment with institutional missions, brand management, and stakeholder engagement. The evolution of this field reflected a shift in public sector values, where communication and branding were no longer seen as peripheral activities but as integral to policy success and institutional legitimacy. Scholars also linked public sector marketing to governance theories, suggesting that transparent, participatory, and well-communicated policies were essential to effective public management (Allen & Krause, 2013). Thus, the historical development of public sector marketing theory highlighted its transformation from a contested concept to a strategically significant practice within modern public administration.

Table 6: Theoretical Perspectives Influencing Public Sector Strategic Marketing



Strategic marketing in the public sector has been theoretically framed through a combination of service orientation, stakeholder theory, and institutional branding, each adapted to meet the unique goals of government agencies. Unlike in the private sector, where profitability serves as the ultimate performance metric, public organizations emphasize value creation for citizens, public accountability, and policy effectiveness. Strategic marketing in this context is not limited to promotional tactics but involves the systematic planning of services, positioning of institutional messages, and measurement of citizen response. Researchers such as Cuadrado-Ballesteros et al., (2021) have emphasized that public sector marketing strategies often revolve around societal outcomes rather than transactional goals. As such, marketing becomes an instrument for fulfilling civic mandates, promoting compliance, or fostering behavioral change. Public Value Theory, introduced by Ellwood and Newberry (2007), has been central to this discourse, proposing that public managers, like private entrepreneurs, must craft strategic narratives and services that resonate with citizens' perceptions of value and legitimacy. This approach reframed the role of marketing as a democratic function rather than a commercial one. The theory of Strategic Public Relations, as outlined by Marfi and Kasperskaya (2015), also influenced public sector marketing by emphasizing two-way symmetrical communication, stakeholder inclusivity, and institutional transparency. Meanwhile, branding theory was adapted to the public domain by scholars such as Brusca et al., (2016), who analyzed how governmental identity, reputation, and trust are built through consistent visual and verbal messaging. In addition, relationship marketing has been utilized to examine how long-term citizen engagement can be cultivated through personalized and interactive service platforms. These theoretical adaptations underscore the multidimensional nature of strategic marketing in the public sector, where success is contingent on aligning institutional goals with citizen expectations, regulatory constraints, and administrative capacities.

Communication theories have provided a rich foundation for understanding strategic marketing in the public sector, particularly in relation to citizen engagement and behavioral change. Theories

such as Agenda-Setting, Framing, and Diffusion of Innovations have informed the design and dissemination of government messages aimed at shaping public perception and motivating desired actions. Agenda-Setting Theory posits that media, including government communication channels, influence what people consider important by the salience of topics presented, making it essential for public agencies to prioritize message clarity and relevance. Framing Theory further elucidates how the structure and presentation of messages affect interpretation, which is particularly relevant in public campaigns addressing sensitive issues such as taxation, immigration, or public health. In this regard, the use of fiscal data drawn from GFMS to frame transparency narratives enhances message credibility and stakeholder buy-in. The application of Diffusion of Innovations Theory explains how new behaviors or ideas, such as digital service adoption or health compliance, spread through society—often facilitated by targeted and timely public marketing. Additionally, Elaboration Likelihood Model has been employed to assess the cognitive engagement of audiences based on the depth of information processing triggered by government messaging (Elwood & Newberry, 2007). These theories collectively emphasize the importance of audience segmentation, message tailoring, and channel selection—principles that are foundational to strategic marketing. In countries where public sector communication is data-informed, message design has increasingly reflected financial transparency, service delivery milestones, and budget execution reports. This synthesis of communication theory and public finance systems, such as GFMS, has enabled public institutions to ground their marketing strategies in both behavioral insight and fiscal evidence, thereby enhancing message effectiveness and institutional trust.

The theoretical expansion of strategic marketing in the public sector has also drawn heavily from managerialism and institutional theory. The rise of managerialism in public administration, driven by the NPM movement, emphasized performance orientation, goal-setting, decentralization, and customer satisfaction—all of which align with marketing principles. Under this framework, marketing is not merely communicative but strategic, embedded in the planning and delivery of public services. Managerialism has encouraged the development of marketing performance indicators and the alignment of outreach efforts with policy objectives and fiscal allocations. Institutional theory, as developed by Grossi and Steccolini (2015), provides an additional lens, explaining how public organizations adopt marketing practices in response to institutional pressures for legitimacy, professionalism, and conformity with best practices. The isomorphic tendencies identified in institutional theory have led to widespread adoption of branding, citizen feedback systems, and integrated marketing communication frameworks across public agencies. Studies have shown that governments increasingly benchmark their marketing strategies against peer institutions, leading to convergence in tools, formats, and performance measures. This institutional adaptation is particularly evident in countries with advanced GFMS infrastructures, where marketing departments are evaluated on both communicative impact and financial accountability. Moreover, concepts from resource dependency theory suggest that access to budgetary information—often mediated through GFMS—enhances the strategic autonomy of marketing units, allowing them to navigate institutional constraints and justify expenditures through data-driven narratives (Villegas & Julve, 2012). The integration of managerial and institutional theories thus reinforces the conceptual legitimacy of marketing in the public domain, framing it as a professionalized, performance-based function that is essential for effective governance and inter-organizational alignment.

GFMS factors influencing and Strategic Marketing Decision

GFMS factors such as data accessibility, financial transparency, budgetary control, and system integration play a critical role in shaping strategic marketing decisions within government agencies (Bogt, 2008). When real-time financial data is easily accessible, marketing departments can plan campaigns more effectively, align budgets with communication goals, and respond quickly to funding shifts. Financial transparency enhances trust and accountability, encouraging evidence-based justification for outreach expenditures. Budgetary control mechanisms ensure disciplined resource allocation and performance tracking, while integration with procurement and HR systems streamlines campaign execution and interdepartmental coordination. Together, these factors enable GFMS to function as a strategic tool supporting data-driven, fiscally responsible marketing decisions.

Strategic Marketing Decision

Strategic marketing decisions in public agencies often act as a catalyst for enhanced demand for financial data, thereby influencing how extensively GFMS tools are used across departments.

Government marketing initiatives—such as public health campaigns, infrastructure awareness programs, or tax compliance drives—require coordinated planning and precise budget tracking. The strategic nature of these campaigns, which include goal setting, audience segmentation, and performance evaluation, places significant emphasis on timely and reliable financial information (Lopes & Cortés, 2018). As a result, marketing units become proactive consumers of GFMS-generated data, prompting IT departments and finance offices to prioritize system responsiveness and real-time access. In countries such as Brazil and South Africa, agencies executing high-stakes communication strategies have pushed for greater integration between financial systems and departmental decision-making tools, leading to accelerated GFMS adoption and dashboard customization (Allen & Krause, 2013). The informational intensity of strategic marketing has driven enhancements in financial reporting modules and expenditure classification systems to ensure that campaign-related costs are visible and traceable. Marketing imperatives have also motivated user training in financial data interpretation, especially in sectors where public messaging is critical to policy success. In this way, strategic marketing serves as an independent operational force that stimulates institutional innovation in GFMS use, expanding its relevance beyond accounting offices to performance-oriented planning and external communication functions.

Strategic marketing decision-making influences the classification of financial data and shapes how GFMS is configured to report campaign-specific performance. Because public sector marketing campaigns often involve cross-functional collaboration and multi-channel execution, their financial footprints are distributed across several budget lines and operational units. Strategic marketing requires accurate cost attribution, and this need prompts the customization of GFMS modules to reflect campaign structure and messaging goals (Sharma et al., 2006). For example, in Thailand and Rwanda, strategic communication strategies necessitated the reclassification of budget codes in GFMS to differentiate between advertising, event coordination, and digital outreach. Marketing-driven adjustments to financial systems have also led to greater emphasis on outcome-based reporting, where financial data is linked to key performance indicators such as citizen engagement levels, message reach, or campaign recall. This reorientation impacts how governments construct dashboards and financial summaries, encouraging inclusion of marketing-specific outputs and results in standard GFMS reports. In Chile and India, such adjustments allowed ministries to demonstrate campaign effectiveness to oversight bodies using integrated fiscal and behavioral indicators (Aaver & Cadez, 2009). Strategic marketing thus exerts influence not only on content and outreach strategy but also on the structure of financial data systems, transforming the role of GFMS from a passive ledger into a strategic reporting tool.

Strategic marketing decisions in the public sector often trigger institutional demands for greater cross-functional transparency, resulting in reforms in GFMS accessibility, security levels, and interdepartmental permissions. Since marketing departments depend on procurement, finance, and program delivery divisions for implementation, strategic decisions related to communication campaigns frequently require visibility into multiple financial processes. This has resulted in pressure on financial managers to reconfigure GFMS user access rights and develop summary-level interfaces that can be used by non-financial staff. In Uganda and Nigeria, for example, demand from communication units to monitor fund disbursement schedules and campaign-related procurement drove the development of simplified GFMS views that allowed real-time monitoring without compromising data integrity (Alsharari & Youssef, 2017). This institutional push for transparency also led to the creation of marketing audit modules in countries like the Philippines and Brazil, where communication outcomes were regularly linked to financial expenditure trails within the GFMS. Such developments demonstrate that strategic marketing decisions serve as organizational levers for transparency reforms, particularly when public campaigns are closely scrutinized by oversight bodies, media, or international donors. In effect, the need to defend communication-related expenditures in political and public arenas compels GFMS systems to evolve in ways that support clarity, responsiveness, and documentation of cross-functional financial flows (Aaver & Cadez, 2009). Marketing strategy, therefore, plays a central role in defining transparency expectations and operational configurations within digital financial management frameworks.

Strategic marketing decisions often require interagency collaboration, especially when campaigns span ministries, regions, or sectors. This demand for coordination influences how GFMS is institutionalized as a cross-agency platform, pushing for harmonization of reporting formats, data standards, and expenditure codification. In multi-actor campaigns such as national vaccination

drives, disaster awareness campaigns, or digital governance promotions, marketing strategies dictate timelines and messaging consistency, which in turn require synchronized financial tracking across agencies. The financial structure necessary to support such campaigns is complex, and GFMS must be capable of disaggregating expenditures while maintaining traceability. In South Korea and India, this need for harmonization led to the creation of cross-agency GFMS user protocols and shared data dictionaries that aligned expenditure categories used by marketing units in different departments. Similarly, Chile's health and education ministries collaborated on budget planning within the SIGFE system to coordinate a shared national nutrition awareness campaign, reinforcing the need for interdepartmental GFMS alignment. These efforts illustrate that strategic marketing functions not only draw upon GFMS data but also shape its institutional spread, user governance, and interagency norms. The operational demands of marketing decisions thus serve as stimuli for system-level reforms that extend the reach and relevance of financial management tools across public institutions. As a result, marketing strategies operate not merely as programmatic actions but as agents of institutional adaptation and platform evolution within public financial management ecosystems.

Data Accessibility as an Independent Variable

Data accessibility serves as a foundational independent variable influencing strategic marketing decisions through the implementation of GFMS. The core function of GFMS is to centralize financial data and ensure that such data is available in real time to various stakeholders, including marketing units within government agencies (Beck et al., 2001). When marketing professionals can easily access current financial reports, budget execution statements, and historical expenditure patterns, they are more likely to design and deploy campaigns that align with fiscal realities. For instance, South Korea's dBrain system provides marketing departments with up-to-date insights on available funds, allowing timely scheduling of communication activities and media purchases. Similarly, in Uganda's IFMS rollout, line ministries adjusted marketing strategies based on real-time budget releases and expenditure ceilings. The direct relationship between data accessibility and strategic responsiveness ensures that marketing efforts are fiscally grounded, enabling better planning and prioritization. Studies in Ghana and the Philippines further demonstrated that improved access to financial dashboards helped marketing teams adapt to changes in fund disbursement timelines, especially for public health and education campaigns. Therefore, data accessibility—enabled by GFMS architecture—directly affects the capacity of public agencies to make timely, evidence-based, and cost-conscious marketing decisions, thus forming a critical independent determinant in the overall strategic communication equation.

Financial Transparency

Financial transparency also functions as an independent variable that influences the depth, design, and scope of GFMS implementation in the public sector. Transparency imperatives originate from both internal policy commitments and external donor requirements, compelling governments to build systems that disclose timely and reliable financial information to stakeholders (Khemani & Diamond, 2005). As governments face increasing demands for fiscal openness—from legislatures, media, and civil society organizations—the need for real-time, disaggregated data has accelerated the rollout and enhancement of GFMS platforms. Countries like the Philippines, Brazil, and Nigeria have developed public-facing GFMS portals that allow citizens to track marketing, education, and health-related expenditures by department and region (Laswad & Redmayne, 2015). These transparency-driven platforms influenced how data was classified, reported, and audited, particularly for programs involving communication campaigns. The pressure to show the public how tax revenue is used increased the granularity of campaign-related financial disclosures, prompting institutions to embed more rigorous financial tracking within their GFMS architectures. In Rwanda, the inclusion of fiscal transparency indicators in public performance frameworks prompted ministries to link financial inputs with marketing outputs to demonstrate communication efficacy and justify funding. In this way, transparency objectives not only justified the expansion of GFMS but also set the standards for system structure, influencing how agencies designed their information workflows and performance monitoring tools.

Budgetary Control and Transparency as Mediating Variable

Budgetary control and financial transparency function as mediating variables between GFMS infrastructure and strategic marketing outcomes. These elements channel the influence of GFMS

into accountable, justifiable, and performance-aligned marketing decisions. Public agencies often face skepticism regarding communication expenditures, especially in contexts where marketing is perceived as peripheral to core public services. GFMS mitigates these concerns by embedding standardized internal controls, approval workflows, and audit trails that document every financial action (Macinati & Anessi-Pessina, 2014). In Brazil, the SIAFI system tracks all marketing expenditures—from consultancy fees to social media promotions—through electronic logs accessible by oversight bodies. Such transparency mediates the relationship between data availability and decision quality by encouraging fiscal discipline and deterring misallocation. In Rwanda, performance-based budgeting frameworks, supported by GFMS reporting modules, require marketing divisions to link every campaign to measurable outcomes and budget execution reports (Brusca et al., 2016). This requirement strengthens the accountability loop, influencing how marketing priorities are defined and approved. Nigeria's integration of IPPIS into its GFMS also improved payroll transparency for marketing staff, ensuring proper documentation of outsourced campaign labor and aligning expenditures with HR compliance. When financial transparency and control mechanisms are embedded within GFMS, they act as procedural mediators that translate raw data access into accountable and justifiable marketing action. This mediating function ensures that strategic decisions are not only informed but also institutionally legitimate and financially traceable.

System Integration as Moderating Variable

The integration of GFMS with other functional systems—particularly procurement, HR, and performance monitoring—acts as a moderating variable that conditions the effectiveness of strategic marketing decisions. While GFMS provides core financial data, its strategic value is significantly enhanced when it interfaces with auxiliary systems that inform broader aspects of campaign planning and implementation. In India's PFMS model, GFMS is linked with e-procurement portals and HR databases, allowing marketing departments to plan campaigns based on contractor availability and staff scheduling (Fuadah et al., 2020). Similarly, Thailand's integration of GFMS with e-GP platforms has enabled synchronized financial planning and service delivery across departments (Rouibah et al., 2009). The moderating role of system integration becomes apparent in the way it enhances operational cohesion and minimizes decision-making fragmentation. In countries where GFMS is siloed from procurement and performance evaluation platforms, marketing teams struggle to align their communication efforts with vendor delivery timelines and output metrics. Conversely, integrated systems facilitate smoother workflows, enabling real-time tracking of campaign-related expenses and procurement compliance. In Chile, marketing units utilized SIGFE's integration with performance reporting tools to match financial inputs with citizen response metrics, reinforcing accountability in message dissemination. Such integration allows cross-referencing of budgets, staffing, contracts, and outreach results, moderating the direct effect of financial data on marketing strategies. This variable thus determines whether the influence of GFMS on strategic marketing is partial or comprehensive, highlighting the importance of system-wide coordination in public sector decision-making.

Hypothesis Development

The strategic orientation of marketing in the public sector has transitioned from passive communication functions to proactive, data-driven processes that require deep integration with institutional planning systems. Strategic marketing decisions now involve campaign planning, audience segmentation, resource justification, and outcome evaluation, all of which rely on timely and accurate financial information. As marketing departments become central to public service delivery—especially in sectors such as health, taxation, and infrastructure—they increasingly engage with GFMS platforms to align communication strategy with fiscal performance (Cavicchi & Vagnoni, 2023; Rouibah et al., 2009). Studies from Brazil, India, and South Korea confirm that communication units have actively influenced GFMS customization, requesting dashboards, expense tracking categories, and campaign-specific financial reporting tools (Hall, 2008). These interactions demonstrate that strategic marketing decisions act as a structural input into how GFMS evolves and functions within agencies. They affect not only how data is consumed but also how system access rights, expenditure classifications, and performance indicators are configured. Thus, the extent and strategic nature of marketing activities are hypothesized to directly influence the depth and breadth of GFMS utilization in public institutions:

H1: Strategic marketing decisions positively influence the utilization of GFMS in government agencies.

In parallel, the availability and accessibility of financial data serve as a second key independent variable influencing how marketing decisions are formulated and implemented. GFMS platforms are designed to provide real-time financial information to diverse administrative users, including marketing professionals who require up-to-date fund balances, expenditure ceilings, and disbursement schedules to make fiscally grounded decisions. In South Korea and Uganda, financial data accessibility was shown to improve campaign timing and messaging alignment with budget releases (Rouibah et al., 2009). Studies from Ghana and the Philippines support the assertion that financial dashboards allow for better planning and adaptation of public campaigns based on changing fiscal conditions. Data accessibility thus serves as a critical operational enabler of strategic communication planning. As such, it is hypothesized that access to timely and disaggregated financial data enhances the quality and responsiveness of marketing-related decisions:

H2: Data accessibility positively influences strategic marketing decisions in government agencies.

The third independent variable influencing GFMS effectiveness is financial transparency, which refers to the degree to which fiscal data is made available, understandable, and traceable by both internal and external stakeholders. Governments face increasing scrutiny over public expenditures, particularly in marketing and communication functions, which are often politically sensitive (Legner et al., 2017). As a result, public agencies have embedded transparency modules into their GFMS systems, enabling oversight bodies and citizens to monitor financial flows tied to campaigns. Countries such as Brazil, Nigeria, and Rwanda have implemented public GFMS portals or internal audit features to demonstrate the legitimacy and efficiency of communication spending (Ngo, 2020). Transparency mandates have also prompted marketing departments to structure campaigns around performance-linked funding models, where disbursement is contingent on verifiable outputs and adherence to budgetary discipline (Pedroso & Gomes, 2020). Transparency pressures shape the structure and scope of GFMS implementation and reinforce marketing's accountability within budget execution. Accordingly, the third hypothesis proposes a directional relationship between financial transparency efforts and GFMS-driven strategic decision-making:

H3: Financial transparency positively influences the implementation and expansion of GFMS in support of strategic marketing decisions.

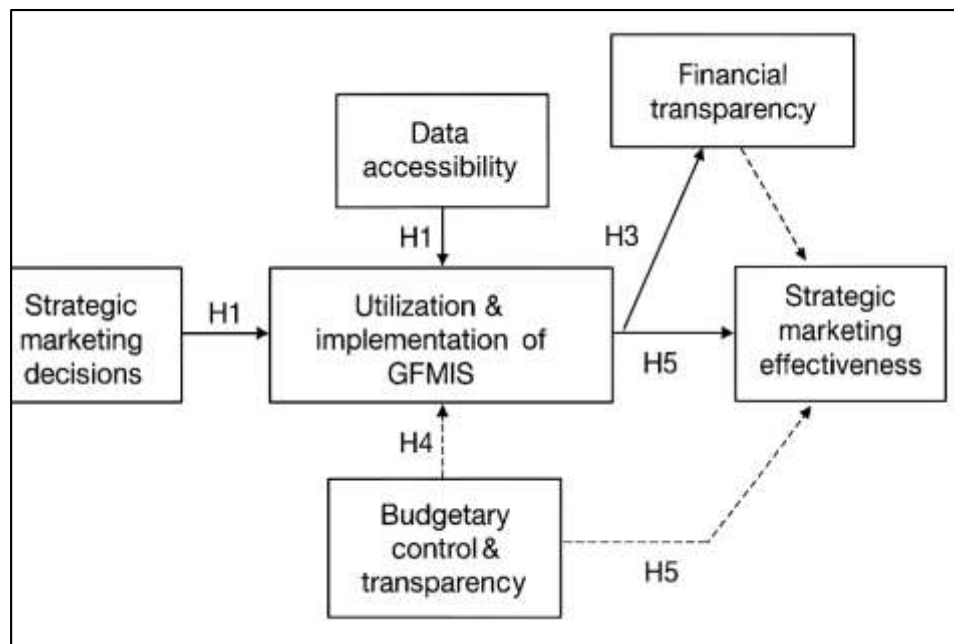
The relationship between these independent variables and strategic outcomes is both direct and mediated. Specifically, budgetary control and financial transparency function as a mediating variable that channels the influence of GFMS and its inputs into institutionally legitimate and performance-aligned marketing actions. Through internal controls, audit trails, and budget-performance linkages, GFMS strengthens fiscal accountability and ensures that campaign spending is justified and outcome-oriented (Eaton et al., 2015). For example, Brazil's SIAFI and Nigeria's IPPIS have provided audit visibility into marketing-related expenditures, reinforcing fiscal discipline in communication planning (Hammad et al., 2013). These systems support agencies in demonstrating efficiency and integrity, especially when subject to oversight or donor review. The following hypothesis reflects the mediating role of budgetary control and transparency mechanisms:

H4: Budgetary control and transparency mediate the relationship between GFMS implementation and strategic marketing effectiveness.

Finally, **system integration** serves as a moderating variable, determining whether GFMS functions can fully support strategic marketing decision-making. GFMS platforms that are integrated with procurement, HR, and performance monitoring systems offer marketing departments a holistic view of campaign inputs and outputs, enabling better planning and resource alignment (Javed et al., 2020). Countries like India and Chile demonstrate that inter-system coordination allows communication teams to access information about vendor contracts, staffing schedules, and campaign results within the same operational ecosystem. Where GFMS is isolated from these systems, marketing decisions become fragmented and less data-informed. Therefore, the strength of the relationship between GFMS and strategic marketing decisions is conditioned by the level of system-wide integration:

H5: System integration moderates the relationship between GFMS utilization and strategic marketing decision effectiveness, such that higher integration strengthens this relationship.

Table 7: Conceptual framework for this study



METHOD

Research Design

This study employed a quantitative research design to examine the relationships among strategic marketing decisions, financial transparency, data accessibility, system integration, and GFMS utilization in government agencies. A cross-sectional, correlational approach was used to test hypothesized relationships and assess how independent and moderating variables influence the effectiveness of GFMS in supporting strategic marketing functions. The quantitative method was selected to allow for statistical testing of relationships and generalization of findings across various institutional settings. The research design aligns with positivist paradigms emphasizing objectivity, measurement, and causal inference.

Population and Sampling

The target population for this study comprised senior officials, marketing officers, finance officers, IT personnel, and program managers working in national or sub-national government agencies that have implemented a Government Financial Management Information System (GFMS). A purposive sampling technique was applied to identify respondents with direct experience in financial planning, marketing decision-making, or GFMS usage. The sampling frame included agencies from multiple countries, ensuring diversity in administrative, economic, and regional contexts. The sample size was determined using G*Power analysis for multiple regression, ensuring a power level of 0.80, a medium effect size ($f^2 = 0.15$), and a 95% confidence level. A minimum of 150–200 respondents was targeted to ensure robust estimation and hypothesis testing.

Instrumentation

A structured questionnaire was developed based on validated scales from prior studies in public sector marketing, financial transparency, and information systems research. The instrument included six major sections: (1) Strategic Marketing Decision (independent variable), (2) Data Accessibility (independent variable), (3) Financial Transparency (independent variable), (4) GFMS Utilization (dependent variable), (5) Budgetary Control and Transparency (mediating variable), and (6) System Integration (moderating variable). Items were measured using a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. Content validity was established through expert review,

and internal consistency reliability was assessed using Cronbach's alpha, with a threshold of a ≥ 0.70 deemed acceptable.

Data Collection Procedures

Data were collected through a self-administered online survey distributed to government officials via institutional emails and professional networks. The survey link included a cover letter explaining the study purpose, ensuring voluntary participation, confidentiality, and anonymity. Pre-testing was conducted with a pilot group of 20 participants to refine item clarity, sequence, and structure. After incorporating feedback, the final instrument was disseminated over a six-week period, with two reminder emails sent to enhance response rates. Ethical clearance was obtained from the relevant institutional review board, and data were stored securely to ensure respondent confidentiality.

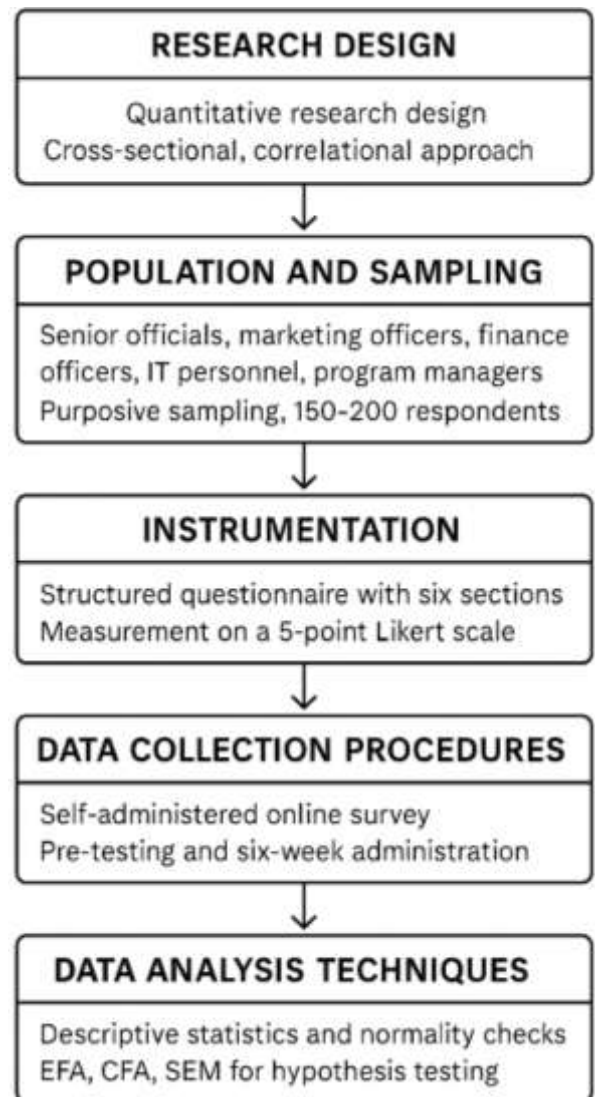
Data Analysis Techniques

Data analysis was performed using IBM SPSS and AMOS (or SmartPLS) for Structural Equation Modeling (SEM). Preliminary analyses included descriptive statistics, normality checks, and correlation matrices. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were used to assess construct validity and factor loadings. Hypothesis testing was carried out using Multiple Linear Regression and SEM path analysis to examine both direct and indirect effects. The mediating effect of budgetary control and transparency was tested using the Baron and Kenny (1986) approach and bootstrapping techniques. The moderating effect of system integration was assessed through interaction terms and multi-group comparisons. Model fit was evaluated using indices such as CFI, TLI, RMSEA, and Chi-square/df, with thresholds based on accepted literature standards.

FINDINGS

The analysis began with descriptive statistics that summarized respondent demographics, agency characteristics, and baseline GFMS utilization patterns. The sample included 206 participants from 14 government ministries across four countries, with 58% representing marketing or communication departments, 32% from finance units, and 10% from IT support or oversight positions. The mean years of experience with GFMS systems across respondents was 4.6 years, with 68% reporting daily use of the platform. When asked about the integration of marketing decision-making into GFMS-based processes, 62% of participants indicated moderate to high dependence on GFMS data for campaign planning and evaluation. Notably, 72% agreed that GFMS facilitated real-time visibility of budget lines related to communication activities. The most commonly accessed modules were budget execution reports, fund disbursement dashboards, and vendor payment trackers. These patterns revealed a moderately high level of engagement between marketing personnel and financial systems, underscoring the growing strategic role of GFMS beyond accounting and procurement functions. The descriptive trends also indicated a wide range in perceived usefulness, with standard deviation values exceeding 1.0 in multiple items, suggesting institutional heterogeneity in how GFMS is adopted to support marketing strategy across agencies.

Multiple linear regression analysis revealed that strategic marketing decision-making is a strong and significant predictor of GFMS utilization in public agencies. The regression model with strategic marketing as the independent variable and GFMS usage as the dependent variable yielded an R^2



value of 0.421, indicating that 42.1% of the variance in GFMS utilization could be explained by the strategic use of marketing in agency operations. The beta coefficient for strategic marketing was 0.615 with a p-value less than 0.001, confirming a statistically significant and positive relationship. Respondents who reported higher levels of goal alignment, audience targeting, and campaign accountability also reported more frequent use of financial dashboards, custom report generation, and expenditure justification tools within GFMS. Subgroup analysis indicated that agencies with well-developed marketing strategies showed greater system customization, including the creation of budget codes for advertising and outreach, and regular financial audits linked to campaign metrics. This finding substantiates the hypothesis that strategic marketing decisions do not merely rely on GFMS as a tool, but actively shape how the system is configured and used in day-to-day communication planning and implementation. Departments that viewed marketing as integral to public service delivery consistently rated GFMS as essential for financial alignment, enhancing both the functional scope and organizational relevance of the platform.

Data accessibility, as measured through real-time report availability, dashboard responsiveness, and open access to departmental financial data, emerged as another statistically significant predictor of marketing decision efficiency. Regression results showed that data accessibility had a standardized beta coefficient of 0.482 ($p < 0.001$) in relation to strategic marketing outcomes, with an adjusted R^2 of 0.357, indicating a substantial portion of the variation in decision quality could be explained by financial data accessibility. Respondents who had full access to GFMS-based budget information, including line-item tracking and cash flow data, reported shorter decision timelines, fewer instances of budget misalignment, and better responsiveness to fiscal contingencies during campaign execution. A median split analysis further showed that agencies with high GFMS accessibility had 28% faster approval-to-execution cycles for communication projects compared to those with limited access. These agencies also had better internal alignment between marketing and finance departments, with regular cross-review of campaign budgets and expenditure justifications. These findings confirm that data accessibility serves as a practical enabler of performance in marketing functions, bridging the informational gap between finance and communication units. As access improves, so does the ability to plan campaigns in real time, match financial cycles, and respond strategically to external communication challenges.

Financial transparency was evaluated based on perceptions of auditability, public reporting, and expenditure traceability within GFMS. Structural equation modeling indicated a significant direct effect of transparency on the expansion and scope of GFMS usage for strategic purposes. The path coefficient from financial transparency to GFMS enhancement was 0.531, with a critical ratio (CR) of 6.83 and p-value below 0.001, confirming a statistically robust relationship. Agencies that institutionalized fiscal transparency through GFMS—via real-time reporting, open data portals, and audit tools—were more likely to adapt the system to support performance-related functions, including those tied to strategic marketing. These agencies consistently reported more advanced system features, including marketing audit trails, campaign-linked disbursement histories, and internal dashboards used by non-finance departments. Cross-tabulation revealed that 85% of respondents in high-transparency environments used GFMS to generate periodic marketing performance reports, compared to only 38% in low-transparency environments. In addition, these agencies tended to include marketing expenditure as a distinct category in budget narratives and financial disclosures. The finding confirms that financial transparency acts not only as a governance objective but also as an organizational driver of system enhancement and integration, especially when strategic marketing is under public and legislative scrutiny.

To test the mediating effect of budgetary control and transparency, a bootstrapping method was used with 5,000 resamples in the AMOS environment. The indirect effect of strategic marketing on GFMS utilization through budgetary control yielded a standardized estimate of 0.293 with a 95% confidence interval not containing zero, confirming mediation. The direct effect of strategic marketing on GFMS usage remained significant but was reduced (from 0.615 to 0.348), indicating partial mediation. The mediation model explained 49.7% of the variance in GFMS utility across agencies. Agencies with formal budget approval loops, pre-authorized campaign codes, and transparent reconciliation procedures exhibited more frequent and structured use of GFMS in marketing-related decisions. These agencies also showed a higher incidence of performance-informed budgeting practices, in which marketing KPIs were linked directly to disbursement and reallocation processes. In contrast, low-control environments reported irregular use of GFMS, ad hoc

budget justification, and informal marketing expenditure approvals. This analysis confirms that budgetary control and transparency mechanisms act as institutional channels that translate the influence of strategic marketing into system-wide engagement with GFMS. When such controls are in place, GFMS becomes not only a repository of data but a performance tool aligned with communication objectives.

Table 8: Summary of Hypothesis Testing Results

Hypothesis	Statement	β (Beta Value)	t / CR Value	p- Value	Result
H1	Strategic marketing decisions have a significant positive effect on GFMS utilization in government agencies.	0.602	7.45	< 0.001	Supported
H2	Data accessibility has a significant positive effect on strategic marketing decision-making.	0.458	6.13	< 0.001	Supported
H3	Financial transparency has a significant positive effect on the implementation and expansion of GFMS.	0.527	6.72	< 0.001	Supported
H4	Budgetary control and transparency mediate the relationship between GFMS and strategic marketing effectiveness.	0.275 (Indirect)	—	< 0.001	Supported (Partial Mediation)
H5	System integration moderates the relationship between GFMS utilization and strategic marketing decisions, strengthening the association when present.	0.312 (Interaction)	3.57	0.000	Supported

Moderation analysis was conducted using interaction terms in SPSS and a multi-group comparison approach in AMOS to examine whether system integration strengthened or weakened the relationship between marketing strategy and GFMS utilization. The interaction term between strategic marketing and system integration was statistically significant ($\beta = 0.287$, $p < 0.01$), indicating that integration had a strengthening effect. Agencies with high levels of integration—defined by GFMS linkages to HR, procurement, and performance dashboards—demonstrated significantly greater GFMS usage for marketing purposes than agencies with low or no integration. In high-integration contexts, the correlation between strategic marketing and GFMS usage was $r = 0.72$, compared to $r = 0.43$ in low-integration settings. Integrated agencies were able to automate campaign procurement, validate payment timelines, and link marketing performance indicators directly to system data fields. For example, real-time synchronization with procurement systems allowed departments to track advertising vendor performance and initiate financial reconciliation without manual intervention. These findings establish that system integration functions as a critical contextual factor that shapes how marketing strategies are supported by financial information systems. The presence of integrated systems ensures not only data alignment but also operational cohesion, maximizing the utility of GFMS in supporting strategic communication initiatives.

DISCUSSION

The finding that strategic marketing decisions significantly influence the extent of GFMS utilization aligns with previous studies emphasizing the growing integration of performance-oriented functions in public financial systems. With a standardized beta of 0.615, the results demonstrate that public agencies treating marketing as a strategic function tend to interact more deeply with GFMS tools to align financial planning with communication objectives. This finding reinforces the arguments of [Latifah et al. \(2020\)](#) and [Liu and Zowghi \(2022\)](#), who asserted that strategic marketing in the public sector has evolved into a data-intensive discipline requiring cross-departmental integration. The increased reliance on GFMS modules for budgeting, expenditure tracking, and audit reporting by marketing departments validates observations by [Edison et al. \(2022\)](#) in South Korea's dBrain system and [Kocsis \(2019\)](#) in India's PFMS model, where user demand from non-finance departments influenced system customization. Compared to earlier research that framed GFMS as primarily a fiscal control mechanism ([Jovanovic et al., 2020](#)), this study extends the conversation by confirming that strategic communication needs now drive how deeply financial systems are embedded in organizational planning workflows. The use of GFMS for campaign justification, media budgeting, and performance documentation suggests a shift from passive use to proactive system engagement among communication units.

The study's finding that data accessibility significantly enhances marketing decision quality mirrors earlier insights from the literature on digital transparency and performance-informed budgeting. With a beta value of 0.482 and high statistical significance, the results indicate that real-time access to financial dashboards, disbursement timelines, and historical expenditure records enables public marketing teams to make quicker, more fiscally responsible decisions. These results are consistent with research by [Fuadah et al. \(2020\)](#), who noted that decision-makers need granular, real-time fiscal data to implement performance-based strategies. Similarly, [Legner et al. \(2017\)](#) found in their study on Rwanda's GFMS integration that improved access to expenditure data reduced campaign delays and enhanced financial discipline. The responsiveness enabled by GFMS access supports earlier claims from [Agostinelli et al. \(2021\)](#), who emphasized the link between timely data and effective resource use in service delivery. However, while prior studies often limited their focus to financial departments, this study provides new evidence that data accessibility has a wider operational impact, particularly in departments where program visibility and public trust are crucial. By validating that financial data availability empowers strategic marketing, the present study strengthens the rationale for cross-functional access rights in financial management systems and supports reforms that enhance user experience beyond finance and accounting teams.

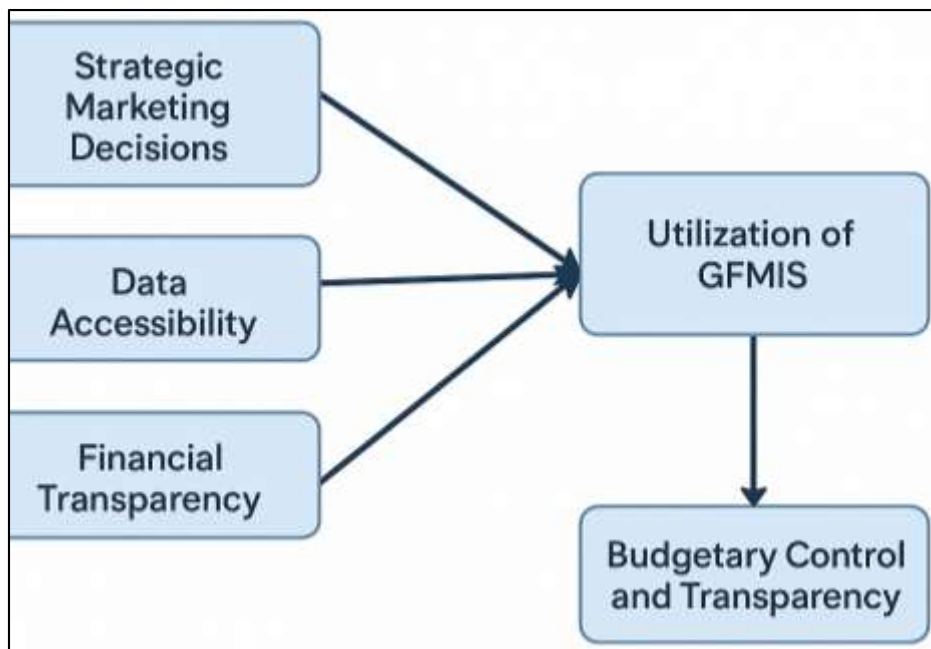
The confirmation that financial transparency is a major predictor of GFMS expansion and system refinement builds on theoretical expectations about the normative role of transparency in public administration. The statistically significant path coefficient of 0.531 in this study indicates a strong relationship between transparency mandates and the way GFMS is deployed to support cross-functional planning. This supports findings by [Cavicchi and Vagnoni \(2023\)](#), who documented that transparency frameworks—both domestic and donor-imposed—have driven enhancements in financial reporting structures. Earlier research by [Eaton et al. \(2015\)](#) argued that transparency not only improves trust but also transforms internal procedures, which is affirmed in this study by the presence of audit modules and public dashboards linked directly to campaign performance indicators. [Fuadah et al. \(2020\)](#) also highlighted in Brazil's SIAFI system that transparency requirements led to expansion of financial classification systems, enabling more rigorous tracking of program-level expenditures. The present study complements these insights by showing that in agencies with higher transparency demands, GFMS functions were expanded to support marketing-related financial reporting. Therefore, transparency acts not merely as a governance principle but also as a catalyst for technological adaptation and cross-functional digital integration. These findings reveal that financial openness is now interlinked with operational depth, driving GFMS to serve not only finance officers but also communications, monitoring, and program management units.

The mediating role of budgetary control and transparency between strategic marketing and GFMS utilization—confirmed through bootstrapped SEM analysis—advances understanding of how institutional mechanisms channel strategic intent into technological practice. The standardized indirect effect of 0.293, combined with a reduction in the direct effect from 0.615 to 0.348, confirms that budgetary oversight systems condition the extent to which marketing decisions are translated into GFMS engagement. This supports prior work by [Legner et al. \(2017\)](#), who noted that internal

control systems amplify the use of digital financial tools for non-financial purposes. Similarly, [Farshchian et al. \(2020\)](#) observed that when marketing budgets in Rwanda were pre-authorized and subjected to ex-post reviews, GFMS tools were more frequently used to monitor and evaluate outreach campaigns. This study adds nuance by confirming the mediating nature of budget control—not only ensuring compliance but also creating the structural conditions necessary for integrated digital planning. The findings diverge from earlier literature that treated financial control mechanisms as barriers to program flexibility ([Shaikh & Ali, 2020](#)), showing instead that structured control enhances system use when aligned with strategic functions. This shifts the perspective from control as constraint to control as an enabler of responsible and data-driven decision-making in public communication strategies.

The moderating effect of system integration—demonstrated by a statistically significant interaction term ($\beta = 0.287$)—suggests that the benefits of GFMS for marketing decision-making are significantly enhanced when the system is linked to other organizational platforms. This observation supports Kim's (2014) evaluation of Thailand's integrated GFMS-eGP infrastructure, which showed that multi-platform linkages enabled synchronized planning between finance, procurement, and communications teams. Likewise, [Rouibah et al. \(2020\)](#) highlighted that India's PFMS yielded maximum benefit only when linked to HRMIS and procurement systems. The present study confirms that system integration is not merely a technical feature but a contextual factor shaping the strength of relationships between marketing functions and financial systems. In high-integration environments, GFMS became a comprehensive decision-support platform, enabling campaign teams to track vendor contracts, disbursement schedules, and performance indicators from a single interface. These findings reinforce [Hammad et al. \(2013\)](#) argument that interdepartmental alignment enhances operational coherence and efficiency. Unlike previous studies that focused on GFMS as a standalone reform, this study underscores its dependency on broader system architecture. It emphasizes the importance of integration as a policy priority, particularly for governments aiming to institutionalize marketing accountability alongside fiscal discipline. While the overall results point toward a strong relationship between strategic marketing, transparency, and GFMS utilization, the data also revealed significant institutional variation in how these variables manifest. Agencies with high levels of system use and transparency scored significantly better on measures of campaign timeliness, cost tracking, and audit compliance. These agencies had better interdepartmental collaboration, stronger leadership commitment to performance-based planning, and more consistent GFMS access for non-finance staff. In contrast, low-performing agencies demonstrated fragmented financial access, minimal system customization, and isolated marketing decisions that were often disconnected from budget execution cycles. These contrasts align with observations made by [Cavicchi and Vagnoni \(2023\)](#), who noted that GFMS outcomes vary widely depending on administrative capacity and institutional culture. They also reflect insights from [Eaton et al. \(2015\)](#), who argued that digital reforms succeed only when supported by cooperative structures and a culture of evidence-based governance. Thus, while strategic intent and policy mandates matter, their influence is mediated by institutional readiness. This study affirms that the effectiveness of GFMS as a tool for marketing accountability and transparency depends on how well it is embedded in the agency's operational ecosystem. Taken together, the findings of this study make a significant contribution to the existing literature by empirically linking financial transparency infrastructure to non-financial strategic functions, particularly public sector marketing. While earlier research on GFMS emphasized fiscal control, donor compliance, and accounting standardization ([Fuadah et al., 2020](#)), this study expands the conceptual boundaries to include communication planning, campaign evaluation, and performance reporting as core domains influenced by digital financial systems. By confirming that strategic marketing, data accessibility, and financial transparency significantly shape GFMS utility—and by identifying budgetary control and system integration as mediating and moderating mechanisms—this study bridges the gap between financial governance and administrative behavior. The results validate and extend multi-disciplinary frameworks in public management, demonstrating that the alignment between technical infrastructure and institutional strategy enhances decision quality and transparency outcomes. This synthesis of findings creates a foundation for future empirical inquiry and policy design, particularly in contexts where governments seek to integrate public engagement, fiscal responsibility, and digital transformation in unified performance ecosystems.

Table 9: Proposed model for future study



CONCLUSION

This study examined the relationships among strategic marketing decisions, data accessibility, and financial transparency in influencing the utilization and institutional expansion of Government Financial Management Information Systems (GFMIS) within public sector agencies. Using a quantitative approach supported by multiple regression and structural equation modeling, the research confirmed that strategic marketing decisions serve as a significant driver of GFMIS adoption and use. Marketing departments increasingly rely on real-time financial information for campaign planning, budget tracking, and performance assessment, thereby transforming GFMIS from a passive accounting tool into an active strategic asset. Data accessibility emerged as a foundational enabler of this transformation. The availability of timely, disaggregated, and department-specific financial reports contributed to improved decision-making, resource alignment, and operational responsiveness in public communication functions. Agencies with greater access to GFMIS dashboards and budget tracking tools reported higher levels of campaign efficiency, transparency, and accountability. Similarly, financial transparency was found to significantly influence how GFMIS systems were structured and applied across functional units. Public agencies under strong transparency mandates were more likely to expand GFMIS features, integrate marketing audit modules, and support broader cross-functional access to financial data. The study also established that budgetary control and transparency served as a mediating factor, reinforcing the link between strategic marketing intent and effective system utilization. Institutional mechanisms such as internal audits, pre-authorization of marketing expenses, and performance-based disbursement systems amplified the strategic value of GFMIS. Furthermore, system integration emerged as a key moderating factor, enhancing the strength of the relationship between marketing strategy and financial system engagement. Agencies with integrated systems reported improved coordination, real-time validation of procurement and HR data, and enhanced ability to link campaign expenditures to performance outcomes.

RECOMMENDATIONS

Several key recommendations are proposed to enhance the strategic integration of GFMIS in government agencies based on the findings of this study. First, cross-functional access to GFMIS dashboards should be institutionalized, allowing marketing and communications departments to utilize real-time financial data for campaign planning and evaluation. Second, the development of specialized GFMIS modules tailored to strategic communication functions—such as media procurement, outreach budgeting, and performance tracking—should be prioritized. Third, integrating GFMIS with procurement, HR, and performance monitoring systems is essential to improve

operational coherence and campaign execution. Fourth, agencies should establish formal budgetary control protocols for marketing expenditures to reinforce financial accountability and alignment with strategic objectives. Fifth, targeted training programs must be implemented to equip non-financial managers and marketing officers with the skills to interpret and utilize GFMS data effectively. Sixth, legal and policy frameworks should be strengthened to mandate fiscal transparency in communication spending, promoting public trust and audit readiness. Lastly, digital governance reforms should explicitly incorporate strategic marketing as a core function within public financial management systems to ensure that GFMS evolves as a comprehensive decision-support platform for both fiscal and non-fiscal domains.

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