International Journal of Science and Research (IJSR)
ISSN: 2319-7064
Impact Factor 2024: 7.101

Government-Citizen Interactive Communication through the ACACAE Model: A Comprehensive Discussion

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Abstract: ***The digital revolution has transformed governance, from hierarchical communication to interactive, participatory communication between governments and citizens. This research examines government-citizen interactive communication using the ACACAE model, which delineates six incremental stages Awareness, Communication/Consultation, Adoption, Collaboration, Advocacy, and Empowerment. Grounded in participatory communication and deliberative democracy, the model illustrates how citizens can evolve from passive receivers of information to active co-producers of governance. Though the architecture sets out a conceptual blueprint for enhancing citizen engagement and robust democratic accountability, strong challenges remain in reality, particularly in situations characterized by digital divides, bureaucratic resistance, and socio-cultural limitations. The research highlights the role of contextual factors like trust, inclusiveness, mechanisms of feedback, and availability of digital media in determining successful e-participation. It concludes that the application of the ACACAE model in the real world is less dependent upon technological advancement but rather institutional reforms, civic inclusivity, and participatory governance approaches.***

Keywords: E-governance, Citizen Participation, ACACAE Model, Interactive Communication, Empowerment

1.Introduction

The 21st-century digital revolution has heavily altered the environment of governance from the conventional channels of administrative unidirection to a more participatory, open, and interactive system (Shukla, 2025). This new approach, termed as e-governance, is the use of Information and Communication Technologies (ICT) to optimize the dissemination of government information,

optimize public delivery of services, and optimize responsiveness between government and citizens (Shukla, 2025). E-governance is a significant factor in new democracies like India because it provides the scope for filling service delivery gaps, enhanced digital inclusion, and more inclusive systems (Shukla, 2025).

Previous thoughts on e-governance were focused on achieving administrative efficiency and the technical capacity to provide computerized services (Shukla, 2025). The thinking has now extended to consider the vital role of citizen engagement in democratic governance (Shukla, 2025). Current thinking about e-governance centers on moving citizens from passive consumers of information to active participants in a collaborative two-way conversation with government (Shukla, 2025; Milakovich, 2010; Rumbul, 2019). This transformation aims to build trust and enable joint decision-making, moving beyond mere information provision to a more profound level of democratic dialogue and co-governance (Shukla, 2025).

To understand and facilitate this transformative process, a new model for interactive communication, the ACACAE Model, has been proposed (Shukla, 2025). The model outlines six progressive stages of government-citizen engagement: Awareness, Communication/Consultation, Adoption, Collaborative Involvement, Advocacy, and Empowerment (Shukla, 2025). This framework is founded on concepts of participatory communication, deliberative democracy, and networked governance which promote an alternative to top-down authority in favor of inclusionary and participatory systems (Shukla, 2025). Each step of the ACACAE model represents a different level of civic engagement, giving us direction on how various digital spaces can be utilized to facilitate citizen participation and shift from passive actors to active change agents (Shukla, 2025).

Awareness: The first step represents one-way communication whereby the government communicates to citizens about public services and schemes using a range of media platforms (television, radio, websites, social media) (Shukla, 2025). The explicit goal of this stage is to build public familiarity with digital services and digital literacy (Shukla, 2025). However, as indicated by research in rural India, the awareness generated is typically informal, unsystematic, and prescriptive, as it often relies on informal word-of-mouth and discussions rather than organized government initiatives (Shukla, 2025) - it is also particularly low amongst marginalized groups (Shukla, 2025).

Communication/Consultation: This stage represents the transition to two-way communication whereby governments will elicit public input in a range of ways, such as through online surveys, public hearings and comments, etc. (Shukla, 2025). This stage contributes to the process of governance moving from passive observation towards inclusivity and responsiveness (Shukla, 2025). Despite this potential, studies indicate that formal feedback loops are often weak or absent, and citizens' participation in this stage is limited (Shukla, 2025).

Adoption: This phase is characterized by a behavioral change in which citizens begin to use and trust e-governance services over traditional methods (Shukla, 2025). It reflects an increase in digital confidence and is crucial for bridging the digital divide (Shukla, 2025). However, adoption is frequently driven by necessity (e.g., for direct benefit

transfers) rather than empowerment, and is hindered by poor connectivity, unfriendly interfaces, and low digital literacy (Shukla, 2025), especially among older citizens and women (Joshi and Islam, 2018; Shukla, 2025).

Collaborative Involvement: This stage represents a deeper level of engagement where citizens and the government co-design policies, plan projects, and monitor their implementation (Shukla, 2025). Platforms like MyGov and civic technology tools are designed to facilitate this shared responsibility (Shukla, 2025). Empirically, this phase is found to be largely non-existent in many contexts, with citizens having little to no experience in co-creating services with government representatives (Shukla, 2025).

Advocacy: Characterized by active citizenship, this phase entails citizens who are digitally literate bringing up issues and engaging communities to pressurize governments for improved governance (Shukla, 2025). Although grassroots, youth-led movements may materialize, systematic government encouragement of citizen advocacy is usually missing, and social limitations restrict women from taking part (Shukla, 2025).

Empowerment: Being the last and strongest phase, empowerment is reached when people are able to shape policy-making and hold institutions responsible (Shukla, 2025). Empowerment is important for ensuring democratic and sustainable governance (Shukla, 2025). Yet, empowerment is more of an exception than a rule, as it gets stifled by structural barriers such as digital illiteracy, language gaps, and fear of authority (Shukla, 2025).

The ACACAE model is an interesting theoretical model, but practical pitfalls arise when implementing frameworks of this nature, particularly within contexts such as rural India (Shukla, 2025). The level of gap between the promising theoretical framework and the operational/institutional context is prominent, and therefore, it is important to suggest that for e-governance to be utilized as a true democratic instrument, it must articulate the institutional, infrastructural and socio-cultural context (Shukla, 2025). However, to truly engage the model in practice governments would need to invest in specific, targeted digital literacy programs, local-language digital interfaces, formal mechanisms of feedback on citizen engagement, engagement of civil societies in orientation/advocacy frameworks, with the real goal of transitioning citizens from passive consumers of digital governance to active agents and co-creators of governance (Shukla, 2025).

2.Literature Review

E-governance is a deep shift in the manner in which governments function and engage with their people, going beyond the existence of a website on the web (Yadav & Yadav, 2009). This is a paradigm shift characterized by the strategic use of information and communication technologies (ICTs) to make and improve governance for all three stakeholders—governments, citizens, and enterprises (Yadav & Yadav, 2009). The initial attention of e-governance programs was more on attaining administrative efficiencies, including cost savings and time savings (Yadav & Yadav, 2009; Mittal & Kaur, 2013). This initial period, since the 1970s, witnessed governments embracing computers for internal record management and data processing, a trend that became increasingly popular for its efficiency compared to conventional means (Mittal & Kaur, 2013; Munir et al., 2024).

Over time, e-governance has developed into a multi-level framework that increasingly emphasizes transparency, inclusiveness, and participatory governance (Shukla, 2025; Munir et al., 2024). This transition represents a shift in the relationship of the state and citizen from top-down to one that recognizes the citizen and state in partnership in a two-way service delivery model that includes the citizen as an active participant in democracy (Shukla, 2025; World Bank, 2025). The force of this transition is often driven by public demand for online information and information services that can increase democratic engagement, accountability, and the quality and speed of service delivery (Yadav & Yadav, 2009). Governments are now recognizing that active citizens can become a significant factor in making public institutions more efficient and transparent and bringing about innovative solutions to public problems (World Bank, 2025).

- **The ACACAE Model: A Conceptual Roadmap for E-Participation**

In this shifting context, the ACACAE model—an acronym for Awareness, Communication/Consultation, Adoption, Collaboration, Advocacy, and Empowerment—has been suggested as a comprehensive framework for interactive government–citizen communication (Shukla, 2025). The theoretical foundations of the model are rooted in participatory communication, deliberative democracy, and networked governance (Shukla, 2025; Fung, 2006; OECD, 2001). It reflects a conceptual shift from a top-down, to a more democratic, interactive approach that allows citizens to move from being passive consumers of services to co-creators of public policy (Shukla, 2025). The model specifies six stages of distinct and increasing citizen engagement, including increasing engagement and power-sharing.

The ACACAE model is not a new creation, it is merely a particular manifestation of an existing and established academic conversation regarding e-governance maturity models and ladders of citizen participation (Mittal & Kaur, 2013; Rumbul, 2019). Other similar scales also envision an evolution of e-government, beginning with information sharing, and concluding with transactions and political participation (Munir et al., 2024). The ACACAE framework is uniquely distinguished in its emphasis on Advocacy and Empowerment by advancing citizen-state relations to a more equitable distribution of power (Shukla, 2025).It serves as a prescriptive tool for what a truly transformed digital governance system could look like, even if its empirical operationalization remains a significant challenge (Shukla, 2025; Coursey & Norris, 2008).

- **The Evolutionary Stages of Citizen Engagement (ACACAE)**

Awareness: From One-Way Information to Public Familiarity

The Awareness stage is a process of one-way communication under which governments provide information to the people about public schemes and services through ICTs such as radio, television, websites, and social media (Shukla, 2025). The aim is to create public awareness and digital literacy (Shukla, 2025; Rumbul, 2019). Seoul OPEN system, for instance, is an example of this stage with the provision of transparency and decreasing corruption (Shukla, 2025). Government use of social media tends to prioritize "post reach" to disseminate news and answer questions, establishing confidence (Goncalves et al., 2015; Mittal & Kaur, 2013). Execution at this stage is fraught with serious challenges in developing nations. The "digital divide" is a key hindrance, including the absence of internet infrastructure access, low incomes, and a lack of digital competency (Coursey & Norris, 2008; Stoiciu, 2011). Low literacy rates and linguistic diversity, particularly where e-governance apps are mostly in English, also hinder success (Shukla, 2025; Mittal & Kaur, 2013). Such issues render awareness campaigns "informal and unsystematic" (Shukla, 2025).

Communication and Consultation: The Shift to Two-Way Dialogue

This phase signifies a key shift towards active, interactive conversation between citizens and government officials (Shukla, 2025; Stoiciu, 2011). Governments proactively solicit public views through mechanisms such as online surveys and web-based grievance portals (Shukla, 2025; World Bank, 2025). This communication is crucial for the establishment of citizen confidence, as it indicates a desire to hear (Shukla, 2025; Gupta et al., 2016; McNeal et al., 2008). The idea of "responsive government" is key here (Wang et al., 2025), with local governments tending to act quicker and more fully than national governments (Wang et al., 2025). Governments do not always take action on what comes back to them, though, with consultation mechanisms being "weak or absent" in reality (Shukla, 2025; Rumbul, 2019). Genuine engagement demands a pledge to "close the feedback loop," such that citizen feedback should culminate in meaningful action (Rumbul, 2019; Mittal & Kaur, 2013).

Adoption: From Knowledge to Actionable Behavior

The Adoption phase entails a significant behavioral shift, as people opt to access e-governance services (Shukla, 2025). Its success relies on a delicate combination of technical, social, and psychological parameters. Trust, in fact, is a "critical determinant" based on a combination of observed data privacy, security (Shahzad et al., 2020; Muhammad & Hromada, 2023), transparency (Bertot et al., 2012; Capistrano, 2020), and system reliability (Cho et al., 2019). The perceived usefulness and usability of a system also have a great impact on citizens' behavioral intentions to use the system (Bwalya, 2009; Lean et al., 2009; Gupta et al., 2016). A key discovery identifies that adoption is possible "out of necessity, not empowerment" (Shukla, 2025), contradicting the model's presumption of a natural, empowering path. When citizens are forced to employ a service, the aspiration of building confidence and empowerment is compromised, which points towards a possible "failure point" in the linearity of the model.

Collaboration Involvement: Co-Creating Governance with Citizens

In the Collaboration stage, citizens become active participants who work with the government to design policies, plan projects, and monitor implementations (Shukla, 2025). The concept of "co-production," where governments and the public jointly deliver services, is central (Goncalves et al., 2015; Barbera et al., 2025). Platforms like India's MyGov and participatory GIS enable this shared responsibility (Shukla, 2025). In practice, however, collaboration often "remains minimal" due to government resistance to change and the inability to break down organizational silos (Rumbul, 2019; Mittal & Kaur, 2013). Fragmented services and data silos make it difficult to establish a cohesive framework for joint collaboration, presenting a deep-seated obstacle to the model's progression (Mittal & Kaur, 2013; Samal, n.d.; Goncalves et al., 2015).

Advocacy: Amplifying Citizen Voice and Accountability

In the Advocacy stage, happy citizens promote e-governance services to their local networks (Shukla, 2025). This level of active citizenship encourages individuals and civil society groups to raise issues and advocate for accountability using digital platforms (Shukla, 2025). The internet enables new forms of two-way communication and gives a voice to marginalized citizens (Jaeger, 2005; Milakovich, 2010). Civil society in Honduras has utilized ICT platforms to hold governments accountable (Shukla, 2025) and social media can speed up progress for anti-corruption efforts in Nigeria (Macarthur Foundation, 2024). However, advocacy may have limitations, often emerging through informal, youth-led advocacy initiatives (Shukla, 2025,) as it is not effective in environments where the government monitors public information, or if there is weak civil societies and memory (Ramjit, 2025).

2.6 Empowerment: The Apex of Participatory Governance

Empowerment is the pinnacle of the ACACAE model, where citizens become active partners in governance (Shukla, 2025). This psychological process instills confidence and a sense of "stake in government" (Macarthur Foundation, 2024). The power relationship transforms into one of shared responsibility, enabling citizens to directly influence policies (Shukla, 2025). The Brazilian Participative Budget, where citizens discuss and outline proposals, is a prime example of this model (Maciel & Garcia, n.d.). However, "full empowerment remains an exception" and is not a widespread reality (Shukla, 2025). While the digital revolution offers new opportunities, it also introduces challenges to privacy, security, and democratic integrity (Tokovska et al., 2023).

3.Critiques, Limitations, and Empirical Challenges of the ACACAE Framework

The Gap Between Theory and Reality

While the ACACAE model offers an intriguing theoretical roadmap, there are significant real-world constraints to empirical operationalization (Shukla, 2025). Evaluations of other e-government models with a similar structure have found them to be "purely speculative," conceptualized without firmly rooting their creation in the realities of technology and government evolution (Coursey & Norris, 2008; McNeal et al., 2008). Empirical evidence from e-government projects at the local level in the U.S. demonstrated that systems are "overwhelmingly informational," and the theoretical models barely reflected any of the higher-level actions a model would describe (Coursey & Norris, 2008). This suggests the constraints to progressing toward the higher levels of the model are due to institutional and political inertia and not just based on technological barriers. As a result, the ACACAE model represents a prescriptive roadmap about future changes for e-government rather than a reflection of the current state of e-government practice.

Socio-Cultural and Institutional Barriers to Implementation

There are many socio-cultural and institutional barriers to implementing the ACACAE model. One of the primary barriers remains to be the digital divide, which encompasses a lack of access to digital infrastructure, low income, and a lack of technical skills (Coursey & Norris, 2008; Stoiciu, 2011; Mittal & Kaur, 2013). Low literacy and language gaps, particularly when services are in English, render them inaccessible to a large portion of the population (Shukla, 2025; Mittal & Kaur, 2013). Political and institutional inertia, including a "limited motivation" to share information and a general "resistance to change," also pose a major challenge (Ramjit, 2025; Stoiciu, 2011). The fragmentation of e-governance services and the presence of "data silos within government agencies" create further impediments, as citizens still experience fragmented services, which negates potential efficiency gains (Mittal & Kaur, 2013; Rumbul, 2019; Manish et al., 2015).

The Sustainability and Effectiveness Gap

One of the major gaps in research is the long-term "effectiveness and sustainability" of citizen e-participation (Mittal & Kaur, 2013). While studies provide information on challenges, an in-depth study of the economic, socio-cultural, and political barriers hindering citizen participation worldwide is required (Mittal & Kaur, 2013). The disjointed character of e-governance and absence of institutional dedication to substantive participation threaten the very sustenance of such initiatives at their core. The inability to close the loop of feedback and deliver services across government agencies hinders the creation of an effectively citizen-focused governance platform (Rumbul, 2019; Mittal & Kaur, 2013).

4.The Future Trajectory: Emerging Technologies and the ACACAE Model

The next wave of e-governance, "GovTech," promises to move beyond simple modernization to a fundamental redesign of government operations and interactions (Zimmermann, 2025). This paradigm, which frames "government as software," leverages advanced technologies like artificial intelligence (AI) and Blockchain to improve public service delivery (World Economic Forum, 2025). The objective is to make government more responsive, inclusive, and transparent, much like a scalable tech company (Zimmermann, 2025). This involves investing in modern, scalable cloud infrastructure and establishing interoperability between departments to support end-to-end automation (Zimmermann, 2025).

The advent of GovTech has profound implications for the ACACAE model. AI-powered platforms could streamline the citizen experience and accelerate the Adoption and Collaboration stages by providing real-time, accurate, and comprehensible responses to citizen queries (Zimmermann, 2025; Yun et al., 2024). Technologies like Blockchain could bolster public trust by enhancing transparency and security (Capistrano, 2020; World Economic Forum, 2025). However, GovTech also introduces new ethical and political tensions. The rise of algorithmic decision-making can raise profound questions about fairness and justice (Ramjit, 2025; Yun et al., 2024), as an efficient but non-democratic system could contradict the ultimate goal of the Empowerment stage.

The ACACAE model provides a sound conceptual model of how government–citizen interactive communication is developing in the digital era. The model rightly delineates the key phases of involvement, from mere awareness to the final destination of empowering citizens. But this review shows that empirical operationalization of the model is not an easy, linear process but is replete with major socio-cultural, institutional, and technical hurdles. The analysis discloses a persistent disconnect between the model's idealized phases and the actual situation of splintered services, political immobility, and an ongoing digital divide. To break free from this theoretical blueprint, policymakers need to take a comprehensive approach. This entails institutional and political will to eliminate organizational silos, a dedication to crossing the digital divide through programs aimed at literacy, and expenditure on accessible infrastructure. The future of government–citizen interaction will be shaped by the GovTech paradigm and emerging technologies, which hold the potential to accelerate the stages of the ACACAE model while also introducing new ethical complexities. Ultimately, the success of digital governance will depend not on the sophistication of its technology, but on the capacity of institutions to institutionalize every phase of the ACACAE model, thereby transforming citizens from passive recipients into active co-creators of their own governance.

5.Objective of the study

The aim of this research is to study Government Citizen interactive communication via the ACACAE model, which

describes six phases "Awareness, Communication, Consultation, Adoption, Advocacy and Empowerment". The research is intended to explore how these phases together change citizens from passive consumers to active stakeholders in governance. The research also assesses the model's ability to enhance citizen participation, inclusivity, and trust in digital governance projects. Its value is in giving a systematic model for conceptualizing participatory communication, enriching theoretical literature and giving applied knowledge for policy makers. Through the synthesis of theory and practice, this study helps enhance transparency, responsiveness, empowerment in democratic governments through ICT-based frameworks.

6.Discussion and Result

The **ACACAE model** presents a systematic framework to understand government–citizen interactive communication in the new media era, where the journey of citizen participation extends from awareness to empowerment (Shukla, 2025). While the framework outlines a pathway for transforming citizens from passive recipients to active co-creators, its practical implementation—especially in contexts like rural India—faces significant challenges. Although the six stages—Awareness, Communication/Consultation, Adoption, Collaboration, Advocacy, and Empowerment—represent a transformative process, in practice a considerable gap remains between theory and reality (Coursey & Norris, 2008; McNeal et al., 2008).

Importantly, this model should not be seen merely as a linear ladder but as a cumulative and layered process, where each stage builds upon and deepens the previous one. For instance, awareness is not just about providing information but also strengthens communication. Communication becomes meaningful only when it leads to adoption, and adoption in turn enables collaboration. Collaboration gradually transforms into advocacy, and eventually advocacy culminates in empowerment. Thus, empowerment encompasses all preceding stages, resulting in a multidimensional form of citizen engagement.

Awareness stage essentially involves the government sharing information about service management, including service availability, via mass media, digital campaigns, community meetings and personal channels with citizens. At the operational level, the extent of this stage is often very limited due to insufficient digital literacy and limited access to infrastructure and technology particularly for marginalized communities (Shukla, 2025; Mittal & Kaur, 2013).

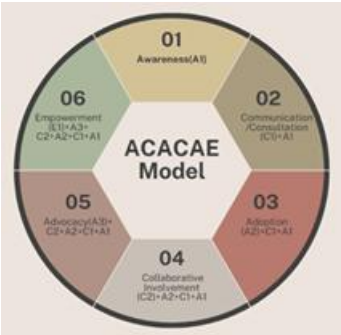
Communication and Consultation stage involves a two-way conversation between citizens and the government, where citizens are able to ask questions and seek clarity about procedures. Ideally, service providers should be responsive to citizen's concerns to cultivate trust. However, in most situations this conversation becomes merely ceremonial due to poor feedback mechanisms (Rumbul, 2019; World Bank, 2025; Gupta et al., 2016). At this level, awareness remains embedded as it continues to expand its scope.

Adoption stage is where citizens start properly utilizing e-services such as digital certificates, grievances redresses, or utility payments. However, adoption is force rather than an enabling sense. Complicated interfaces, technosocial barriers, and sociocultural barriers especially for females and seniors—are a barrier to voluntary adoption (Joshi & Islam, 2018; Lean et al., 2009). Thus, often the transition to collaboration falters somewhere between adoption (Coursey & Norris, 2008). In this stage awareness and communication are embedded as their scope continues to expand.

Collaboration stage involves citizens actively contributing to co-creation of services through feedback, suggestions, and complaints. India's *MyGov* platform and participatory GIS are examples of such efforts. Yet, bureaucratic inertia and organizational silos often restrict genuine collaboration (Shukla, 2025; Goncalves et al., 2015; Mittal & Kaur, 2013). At this stage, awareness, communication, and adoption remain embedded, with their scope and depth further expanding.

The advocacy level involves citizens, motivated by the use of e-services based on positive experiences, ushering in a new era of e-services and encouraging others to use them, enhancing trust in and social acceptance of e-government. However, in reality, it is patchy, as advocacy seems heavily driven by young people, civil society organizations, or urban-based groups, with women, minorities, and marginalized communities often excluded (Ramjit, 2025; Shukla, 2025). The levels of awareness, communication, adoption, and collaboration are embedded at this level, and advocacy extends to a broader scope of society.

The empowerment level of the model represents the highest stage, whereby citizens are no longer viewed as a passive receiving service, but as active co-partners in decision-making, as they demand accountability and co-create policy (Shukla, 2025; MacArthur Foundation, 2024). In one example, if a citizen files an online grievance and finds a timely resolution—and if this grievance process is successful once again—the user's competence in the e-service and accountability will be established. However, in an actual context, the digital divide, language differences, or fear of authority will prevent the majority of citizens from reaching this stage (Stoiciu, 2011; Mittal & Kaur, 2013). Embedding awareness, communication, adoption, collaboration, advocacy collectively combine to create a form of empowerment at this stage of the model.



"A1+C1+A2+C2+A3+E"

The ACACAE model can be strengthened by adding contextual coefficients that shape real-world outcomes. **Trust (+T)** deepens citizen confidence across stages, while **Inclusiveness (+I)** ensures marginalized groups are represented. **Feedback effectiveness (+F)** makes communication and collaboration meaningful, whereas **Barriers (-B)** like digital divides or bureaucracy hinder progress. Finally, the **Medium effect (+M)**—through mass media or digital platforms—shapes how participation unfolds. Together, these factors make the model more practical and context-sensitive.

In the future, GovTech innovation, including blockchain and artificial intelligence may advance implementation and collaboration along with trust, access, and accountability conundrums (Zimmermann, 2025; Capistrano, 2020). However, GovTech innovations also raise some ethical, justice, and democratic integrity considerations (Yun et al, 2024; Tokovska et al., 2023). Thus, the efficacy of the ACACAE model relies less on technological innovations and more on institutional commitment, participants' inclusion, and participatory design (World Economic Forum, 2025). The ACACAE model should be viewed not as a rigid linear turn-taking process, but as dynamic and interdependent. It points to the gradual and escalating nature of citizen participation and shows how each step could become a collectivity that empowers citizens as partners. Conversely, its limited implementation suggests a problem for institutional innovation and a call for institutional reforms through inclusive, citizen-centered strategies, to realize the dichotomy between theory and practice.

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