

Dissecting the Interplay Between Elected Members and Officials in Board Level Technology Decisions: the case of a local authority in England

Short Paper

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Abstract

Digital investment and the successful selection and implementation of technology is crucial to local government success and yet there is a dearth of research evaluating how these decisions are made. And yet there is a dearth of research evaluating how Boards and executives of all kinds make these decisions and the role they play in influencing asset deployment in the digital space. In this regard, government, and especially local government is not only sparsely investigated as part of the existing body of knowledge but does not function neatly when compared to commercial organizations and the profit motive. This paper addresses the shortfall by investigating the interplay between elected members and Boards of local government in terms of complex decision-making processes surrounding technology investment. Empirically, this research adopts a case study approach and qualitative questioning of key elected and appointed actors allowing us to dissect the phenomenon.

Keywords: e-Government, technology, decision-making, local government

Introduction

The importance of asset deployment in digital technology is widely acknowledged (Brynjolfsson & McAfee, 2014). It can be seen as a crucial element in organizational success and is all the more important given today's rapid changes in digital capability (Manyika et al., 2013). It is perhaps surprising then how little we know about how Boards and executives make decisions in terms of technology and to acknowledge the limited strategic processes in operation (Legner et al., 2017). Here, local government is an overlooked area in what is an under-researched field (Gil-Garcia et al., 2016). And yet the deployment of services, increasingly reliant on digital technology, is crucial to the wellbeing of millions of citizens, including the most vulnerable (Mergel, 2016). Furthermore, led by 'amateur' elected members, local government is increasingly taking greater responsibility for high-risk investment decisions.

Public administrations have undergone significant managerial transformation since the 1980s with the advent of New Public Management which sought to bring efficient private sector approaches to public bureaucracies (Hood, 1991), modernizing it and approximating it to how the corporate sector is managed. This shift has added to the accumulated pressures associated with decisions relating to technology decisions

since it necessarily requires an ‘outsourcing’ of expertise to external commercial actors. Despite this, the public sector generally, and local government more acutely, remains different from commercial organizations (Dunleavy, 1994; Liddle, 2011). Its incentives and stakeholders are both complex and ‘messy’ (Meijer, 2015). Furthermore, organizational leadership comprises both (specialist) appointed officials and (inexpert) elected members (Kearns & Myers, 2016). Decisions relating to the acquisition, development, or cancellation of digital technologies are not uniform and do not fall into neat linear processes (Scholl & AlAwadhi, 2016). Moreover, as governments have increasingly expanded its e-government and open data offerings, it has opened itself up to heightened levels of scrutiny, as institutions strive to become more transparent and accountable (Norris, 2002; Gallego-Alvarez et al., 2010). Combined with the messiness of necessary democratic structural arrangements, it is markedly different from how the private sector operates. In the case of local governments specifically, there are further legislative rules and constraints, dictated by its central counterpart.

Most of the research to date regarding decision-making processes concerning technology investments remains constricted to the private corporate environment (Schneiderjans et al., 2010). In the case of public institutions, studies concerning technology investments have mainly focused on adoption, implementation, usability, and impact (Fichmann, 1992; Berghout and Tan, 2013), ignoring the dynamics of the decision-making process itself (see Kamal et al., 2015). Thus, there is insufficient clarity about how decisions are made and how the competing priorities of officials and members are navigated (Nagel, 2018). This research begins to address this significant shortfall in knowledge by answering the question: how does local government make technology investment decisions? In exploring this question, this study dissects the interplay between elected members and officials and non-elected Boards of Executives of local governments in terms of complex decision-making processes surrounding technology investments, exploring the factors that underscore this process. As such, this study proposes the adoption of a case study which focuses on a local authority (council area) in England, seeking to elucidate how technology is both governed and decisions concerning investments. Data was collected via interviews with those directly involved in such decision-making processes and the analysis of relevant documentation. As will be reviewed, governments can be characterized as complex organizations, and technology investments as the result of complex decision-making processes. Preliminary findings underscore this level of complexity, shedding light on the many competing factors that bear an impact on how investments are decided on, and the many competing interests to which such decisions are subject to.

Framing the Study

Governments, including local authorities, have increasingly invested in technology. Since the early 2000s, driven primarily by the desire to be more efficient, effective, accessible, and transparent, governments across the world have expanded their e-government offerings (Irani et al., 2008; Luna-Reyes et al., 2014). Advances in innovation have spurred a further wave of investments in technologies such as artificial intelligence (AI) and Internet of Things (IoT), with, for example, the British government pledging in March 2023 to allocate £3.5 billion in investments in this area (UK Government, 2023). Areas of application include smart cities, and the use of AI to monitor and aid in decision-making (Valle-Cruz et al., 2022). As Pang (2014) observes, the public sector is a major investor in technology, yet how decisions are made and what applications to invest in is however an aspect that remains largely under-explored.

Governments can be characterized as complex organizations and comprise a range of different stakeholders, both internal and external (Bingham et al., 2005) and the diversity of stakeholders should be taken into account. In the case of local authorities, there are further constraints, such as laws, rules and practice that govern it (Lynn et al., 2000). Moreover, internal stakeholders comprise both elected and non-elected officials, who may have competing interests, adding an additional layer of complexity. This complexity has the potential to shape future investments and which areas are prioritized. In the case of technology specifically, this means which applications are invested in. This is an opportune moment for studying technology investment decision making. There is both a ‘pull’ in terms of the rapidly emerging technology and digital capability and, perhaps more importantly, a ‘push’ when it comes to financial and service pressures. According to the Institute for Government (2021), local authority ‘spending power’ in England (which they calculate from government grants, council tax and business rates) fell by 17.5% in the decade 2019/20, before partially recovering during Covid. For the 2021/22 period, it remained 10.2% below 2009/10 levels. For the Local Government Association (LGA) these “financial pressures have accelerated a

trend already visible for many years ... the move from monolithic, council-dominated provision towards a much more varied landscape involving private, voluntary sector and mutual suppliers, innovative joint ventures and partnerships and even resident-run operations, with councils increasingly focusing less on direct provision and more on commissioning and collaborating with partners” (LGA, 2022). This is reflective of the competitive, market orientated, practices associated with the New Public Management (NPM) which have shaped the nature of local government since the 1980s. However, NPM has drawn criticism for being too focused on managerial practices, overlooking outcomes and values generated. In this regard, Connolly and van der Zwet (2021) for a shift in focus, to Public Value Management (PVM), which can be linked to processes that shape decision-making. For international observers, what is happening in English local authorities and how complex decisions are being taken will be instructive. When compared to other developed countries, the revenue raising powers of local government in England is limited. The Institute for Government (2021) reflect that in 2018, every other G7 country collected more tax at a local or regional level. The UK’s overall 7% compared to 12% in Italy, 32% in Germany, and almost 50% in Canada. The pressures to innovate and adopt digital solutions might therefore be said to be more intense in England meaning broader lessons learned for the deployment of technology locally in other countries which contributes to the significance of this research.

This section serves the purpose of reviewing literature that highlights factors that may impact the decision-making process in local governments. Rollinson (2008) affirms that the decision-making process is complex and influenced by context, operated at different layers: organizational, individual, and nature of decision. Factors that can influence each of these layers will be reviewed.

Organizational Complexity

Organizational complexity refers to the number of differentiated entities present, such as the number of levels in the hierarchical structure (vertical differentiation), and horizontal structures, such as organizational units and the division of tasks. The greater the differentiation, which includes the degrees of interdependency and interaction, the more complex the organizational structure (Baccarini, 1996; Dooley, 2002). Dooley (2002: 4) affirms that complexity is equivalent to variety. Schein (1980) complements this notion by also pointing out the individual human complexities, referring to aspects such as age and gender, but also beliefs and differentiated perceptions.

Traditional organizational theories, such as structural contingency theory, place huge emphasis on the external environment as a factor of organizational complexity (Donaldson, 2001). That is, the more complex the external environment, the more complex the internal organizational structure. Whilst that certainly holds true in a governmental context (specially at a local level), how systems are internally arranged may or may not be the result of external complexity. However, internal complexity can also be attributed to historical dynamics that have resulted in existing political arrangements such as, in the case of the United Kingdom, the fact that the constitution is verbal and based on tradition, as opposed to a written formal documents that regulates the functioning of government. Arrangements steeped in tradition and formalized over time dictate how processes are organized, such as the size of bureaucracy, and how public servants interact and work with one another (Bicket et al., 2021).

Complex Individual Decision-Making

According to Parayitam and Dooley (2009: 790), decision-making processes involve “exchange of information between the members” of the organization. The result of this is that how information is exchanged and processed will directly influence how decisions are made. The higher the degree of complexity in the decision-making process, the more information will be need to exchanged and processed. In this regard, Galbraith’s (1973) information processing theory establishes that decisions are made and implemented when individuals exchange and act upon information received from each other. This may result in competing ideas, viewpoints, and interpretations. Parayitam and Dooley (2009) thus conclude that trust becomes a necessary component in this dynamic.

Another factor is the presence of affective conflict which refers to personal grievances and animosity (Jehn, 1995) and has been found to be counter-productive since the focus shifts from the decisions themselves to the people involved. Parayitam and Dooley (2009: 790) affirm that “extreme affective conflict also may trigger members to sabotage decisions and engage in political gamesmanship”. In political environments,

this factor seems relevant. As Pliskin and Halperin (2021) observe, political spheres are emotionally charged environments, due to, amongst others, divergent ideological views, which can result in a competitive environment. Boxell et al. (2020) also observe an increased affective polarization which has led to increased levels of hostility. When it comes to technology investments, there are additional factors such as budget constraints and fiscal pressures (Solar, 2020). These will be reviewed in the next section.

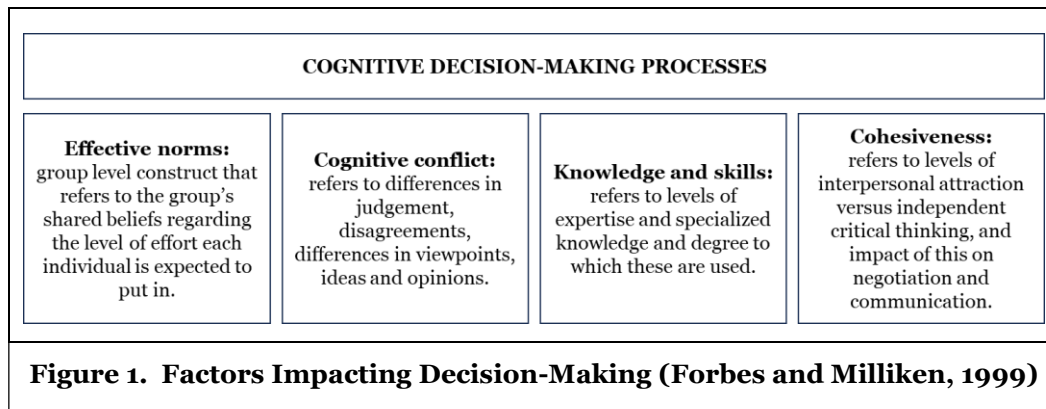
Nature of Decision: Technology

Technology investments can be characterized as “all of the components that make up management information systems” (Schniederjans et al., 2010: 8). There are many drivers for such investments: efficiency, cost-reduction, modernization, improvement of service delivery, and reducing bureaucracy. However, significant challenges also underscore such investments. Lucas (1999) established the “productivity paradox”, stating that productivity gains arising from technology investments are difficult to ascertain due to a lack of established metrics to track this. In a public administration environment, this becomes more relevant as budget allocation not only needs to be internally negotiated, but also demonstrated to the external stakeholders, the civil society. The reality is that most technology investments made by governments fail to translate into significant gains (Heeks, 2006). Some of the barriers include the lack of specialized personnel, lack of a collaborative and organization-wide technology infrastructure framework, and attitude towards technology (Kamal et al., 2010; Wu, 2007). External pressure regarding budget execution can also be perceived as a factor (Solar, 2020), as other areas of public interest, such as infrastructure and health may be deemed more important by external stakeholders (a factor which may be of concern to elected officials who are directly accountable to this group).

Towards a Conceptual Framework

As reviewed, governments are complex organizations, with decision-making processes also characterized as complex, due to the different layers of influence that may bear an impact on this process. Susan (2013) highlights that “inadequate attention and resources have been applied in specifically investigating and understanding the individual (e.g. focusing on attitudes and behaviors), decision (e.g. focusing on nature of decisions taken) and organizational (e.g. focusing on culture and politics) context factors influencing . . . decision-making processes for adopting [technologies]”. When theorizing decision-making processes, two bodies of work start to emerge: the first, anchored on rational-choice theories, posits that individuals make decisions on the basis of costs and benefit analyses; the second, anchored on cognitive theories, illustrate decision-making processes as complex, subject to different dynamics and interpretations. Most studies concerning technology investments are of a rational-choice vein (Pang, 2014). Moreover, with few exceptions, they have focused on the private sector, often focusing on the impact of such decision processes, as opposed to focusing on the dynamics of the decision-making process itself.

The complexity present in the public sector, outlined in previous sections, stands in stark contrast to theories such as bounded rationality (Simon, 1976) which suggests that individuals simplify mental processes when tackling complex problems. It thus seems plausible to instead posit that decision-making in an environment as complex as a government institution is not as straightforward. Forbes and Milliken (1999), when discussing decision-making processes at a board level, introduce the concept of cognition. Though they focus on the private sector in the United States, constructs delineated in their model are applicable here. For them, boards are theorized as groups “likely to be influenced by social-psychological factors” (Forbes and Milliken, 1999: 493). These factors include effort norms, cognitive conflict, presence of knowledge and skills, and cohesiveness (see Figure 1). These will be explored in the course of study, expanding on it to take into account contextual factors such as legal and financial aspects, as suggested by the authors when discussing the limitations of their model.



Methodology

Addressing the question, how does local government make technology investment decisions? this research aims to understand the decision-making dynamics in local government pertaining to technology investments. In order to study this phenomenon, a case study of a 'typical' English local council (or council) was conducted. Yin (1994: 1) states that case studies are typically "the preferred strategy when 'how' or 'why' questions are being posed . . . and when the focus is on a contemporary phenomenon within some real-life-context". Merriam's (2002: 8) complements this notion by affirming that the purpose of a case study should be: "an intensive description and analysis of a phenomenon or social unit such as an individual, group, institution, or community. The case is a bounded, integrated system. By concentrating upon a single phenomenon or entity (the case), this approach seeks to describe the phenomenon in depth". Thus, by adopting a case study approach, we seek to understand the intricacies pertaining to this phenomenon, seeking to understand it and describe in an in-depth manner. According to Yin (1994), cases can range from events, decisions, programs, to implementation processes. For the purposes of this study, the unit of analysis are the people conscribed to this organization and which are involved in the decision-making process of technology acquisitions. The chosen local authority is a relatively small organization, with fewer than 300 employees (by comparison, the largest local authority in England, the council of Kent, employs over 1,100 people) and is responsible for governing over several wards. It must be acknowledged, therefore, that the findings may not be directly applicable to other contexts. Nevertheless, the selected local authority is characteristically typical in terms of this study. Like the wider country, this local authority is home to suitably diverse socio-economic experiences with relatively affluent parts. This means that, despite being a wealthier than average local authority, there are areas that exist with specific challenges around income, employment, health, education, housing, environment, crime. All this suggests that the in the deployment of services and the adoption of technology, the chosen local authority represents a useful case through which to explore the research problem.

Data collection consisted of both semi-structured interviews and documents. A first round of interviews was conducted between January and February, 2023, and then a second round in July 2023. Participants both rounds comprised both elected members, including the Leader of the Council, and appointed Board level officials, including the Chief Technology Officer. A total of six interviews were conducted, with those interviewed having direct knowledge of acquisition processes of technology, having been either directly or indirectly involved in these. Interviews lasted between an hour and two hours and were conducted individually. Subsequent rounds of interviews and observation sessions have been scheduled and will be undertaken in future.

In attempting to understand the interplay between these two key constituent decision makers, interviews were designed to explore participants' experiences and perspectives on the adoption of technologies. Documents analyzed included organizational charts, financial statements, and procurement strategy, and served to map processes in terms of steps and decisions made. In this regard, Langley (2009: 1) affirms that combining different data sources ensures that all dimensions are captured. Documents thus served the purpose of complementing data collected through interviews and to further elucidate procurement processes, which underscore the rules for all acquisitions, amongst which technological artefacts, at this

local council authority. Thematic analysis was used to analyze data collected. Due to its flexible nature, thematic analysis can be applied to many different types of qualitative data, which seems particularly suited for this piece of research. According to Boyatziz (1998: 31), this form of analysis is most appropriate for “theory development”, which seems appropriate in this instance due to the novelty of the phenomenon that is being explored.

Contextualizing the Case

The local government upon which this study focuses on is a democratically elected non-metropolitan local authority serving around 100,000 citizens. The council is responsible for a range of services including planning, building control, housing, roads, leisure services, parks and tourism, refuse collection and recycling, cemeteries and crematoriums. There are 39 elected councilors, each representing an area in the Borough, called a ward, normally for a period of 4 years. Elections to the council are held in three out of every four years, with one third of the seats on the council being elected at each election. It uses a ‘first past the post electoral system’, meaning single party control is commonplace. The council also operates a Cabinet system, appointed by the Council Leader and comprising members of the controlling group with allocated portfolios. The council has responsibility for electing the Leader of the Council, appointing committees, confirming the (appointed non-political) roles of Chief Executive and Chief Financial Officer, Monitoring Officer and agreeing the overall budget. This council’s business functions are organized across different departments, amongst which IT (which is responsible for managing this council’s technology infrastructure, and headed by a Chief Technology Officer). Councils across the UK are funded by a combination of central government grants and local taxes.

Preliminary Results and Findings

The council's chief executive and senior management team oversee the implementation of the budget, working closely with department heads and other staff members to monitor progress and ensure that resources are being used as planned. Throughout the financial year, the council is required to provide regular updates on budget execution, detailing the actual expenditure against the planned budget. In addition to these regular updates, the council also conducts periodic audits and reviews to evaluate the effectiveness of its budget execution process. Regarding expenditure of technology specifically, most of the initiatives are born within the IT department, led by the CTO. When a need is identified, they are required to make a business case, which is to be evaluated by the internal cabinet and then potentially voted on by executive leadership team and cabinet. The decision-making process is therefore complex, touching upon a range of different actors. Through the analysis of the data collected to date, a few themes have started to emerge, each of which will be reviewed below, grouped by level of decision-making (organizational, individual, nature of process).

Organizational

Several themes have emerged from the analysis of the preliminary data gathered. The first one which warrants being discussed refers to the *communication layers*. Typically processes transit through a range of different sectors (department, portfolio holder, cabinet, executive leadership team). The head of the IT department (the CTO) is not part of the internal cabinet; the portfolio holder is. This means that needs of the department and required projects are communicated to one group, who then communicates to another, who in turn will then present it to the executive leadership team. That means that certain key aspects may not be properly communicated, ultimately impacting how well received a project may be and whether it will be invested in or not. As reported in interview by the CTO: *“I rely on others to have my projects approved. I don’t always have the opportunity to communicate the requirements myself. My main point of contact is the portfolio holder”*.

Another theme that emerged at this layer refers to the *channels of communication*. As gathered from the data, these consist of both formal and informal channels. The formal channels refer to actual scheduled meetings, which are formally registered, subject to external scrutiny. A second channel however exists, an informal one, which is not registered anywhere. Officials (both elected and non-elected) can often meet to informally discuss expenditures and other matters, quickly negotiating the merits, and then presenting a united and pre-negotiated position at the official meetings. As reported by one of the interviewees, *“this is*

where business actually gets done”. Another interviewee described this process as “*democratic theater*”. The *external environment* and its influence also became evident through the process of gathering data. Factors cited here refer to the legislative framework that dictate protocols and standards for certain technology standards (e.g. cybersecurity).

Individual

At the individual layer, the main theme that emerged referred to *competition of perceived interests*. Though interviews, it became apparent that elected and non-elected officials often compete in terms of interests and agendas they push. One interviewee, an elected official, claimed that “*civil servants hide behind elected officials*” and that there is a “*choreographed dance*” that exists which the public will never be privy to. This competition of interests has meant that elected and non-elected officials often vote in blocks, protecting their own groups, versus on the merit of the projects discussed. Words used in interviews to classify these conflicts include “*fight*” and “*blockers*” (in reference to the opposing group). This was reported in interviews on both sides, amongst elected and non-elected officials. The result is what elected officials refer to as a “*soft power mandate*” whereby non-elected officials work to dilute the power of their elected counterparts. Non-elected officials, on the other hand, claim they act in the best interests of the local authority, instead of catering to the electorate. Conflict here appears to be more affective than cognitive, serving only to hinder how decisions are arrived at. Moreover, it means that motivation for technology investments differ. For elected officials, this is mainly political; for non-elected officials, this is mainly operational and procedural.

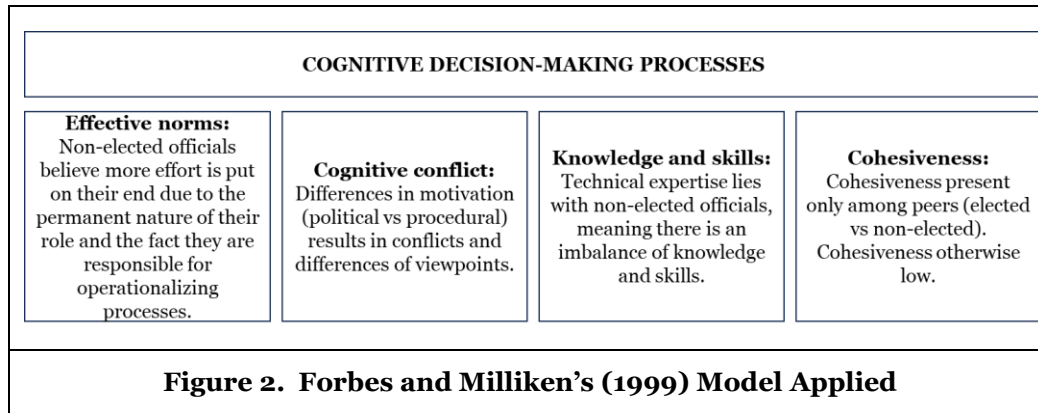
Another theme that emerged at this level refers to the *lack of technical expertise* by most of those involved in the decision-making process of technology investments. This has been attributed by those in the IT department as due to many different factors, such as complexity of solutions and a “*generational*” issue. This means that when technology solutions are introduced to be discussed, they have to be presented in a non-technical way. This was referred to as “*dumbing down*” and “*frustrating*”. As the CTO reported in interviews, “*I spend more time trying re-writing briefs so they can be understood, versus managing the technology infrastructure*”.

Nature of Process

Technology investments can be made to either support internal processes or external-facing ones (i.e. the council’s website). Pace of change regarding technology innovation is increasingly accelerated. As a result of this scenario, two main themes emerged at this layer. The first refers to the *complexity of solutions*. Solutions may prove to be complex in nature, meaning that the perceived benefits are difficult to be communicated and bear a direct impact on the decision-making process. Moreover, benefits may only be realized or perceived in a mid- to long-term timeframe. This, when coupled with the lack of technical expertise, reported at the individual layer, means that projects invested in may not necessarily benefit the local authority in the long-term, but result in an immediate perceived benefit. The second theme that was evident here refers to *change of pace*, meaning technology changes at pace which the procurement process is not able to accompany. As discussed the organizational layer, the legislative framework dictates the procurement process. The many steps to it may mean that by the time a solution is finally approved, the technology has already evolved. An example of this is the website which this local authority invested in.

Conclusion

The preliminary results confirm that the environment in question is complex in nature. Themes that have emerged point to a completed, and sometimes contentious, dynamic between elected and non-elected officials. The dynamic here differs from that of the private corporate environment due to this. Referring back to Forbes and Milliken’s (1999) model for decision-making (Figure 1), a picture starts to emerge regarding the dynamics of this interplay (see Figure 2). However, though the model is valid in terms of identifying cognitive processes, it needs to be expanded on in order to account for the complexities of public institutions. In this regard, additional constraints impact the decision-making process concerning investments, such as the different layers of communication and the wider legislative framework imposed by the central government. The nature of the investment also serves as a factor of complexity due to the organizational make-up in terms of technical expertise and the speed with which decisions should be made.



As discussed, this study aims to fill a clear gap in the literature which has overlooked how such complex decision-making processes may impact how technology is invested in (and indeed which technologies are prioritized). Since investments made in this area can influence civil society (such as its ability to communicate with government), this is dynamic is of particular interest, especially in light of increased budget allocations in this regard aimed at emerging technologies (announced by the British central government). This study, which is still ongoing, will now proceed with further collection of data. The final stage in this piece of research will be to move towards establishing a conceptual framework which can then be applied across other settings. Results thus far are promising and are expected to have an impact in shaping future policy-making. Specific recommendations will be made at the conclusion of this research.

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