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GOVERNANCE AND STRATEGIC PLANNING OF ICT PROJECTS FOR PUBLIC SAFETY IN LIMA

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ABSTRACT
The objective was to describe the strategic planning of investment projects in information and communication technologies aimed at citizen security in Lima during 2025. The study adopts a qualitative approach, under the interpretive paradigm and phenomenological design. The participants were ten key experts selected for their experience in ICT project management in public entities. Data collection was carried out through semi-structured interviews, and the analysis was developed based on grounded theory and methodological triangulation. The results reveal that strategic planning is not limited to a formal document but is embodied in an operational structure that articulates institutional vision, scenario projections, and technical actions. Combined methodologies such as PMBOK and Invierte.pe, inter-area coordination mechanisms, and technical and financial monitoring systems are used. The existence of regulatory frameworks and user feedback demonstrate results-oriented management. Conclusions: Strategic planning enables adaptive and effective management, strengthening institutional capacity to respond to public safety needs.

Keywords: Strategic planning, investment, information technology, security, and management.

I. INTRODUCTION

Strategic planning in information and communications technology (ICT) investment projects is essential for optimizing resources and results (Arevalo, et al., 2023). This approach facilitates adaptation to rapid technological changes and continuous improvement in service delivery (Ayala & Adrianzen, 2022). Therefore, proper implementation ensures greater operational efficiency and a better response to the needs of the environment (Gálvez, Vallejos et al., 2021). It also enhances the organization's capacity for innovation and competitiveness, which is essential for its sustained development and adaptation to the future (Ramos, et al., 2021).

Internationally, the Dubai Police uses strategic planning to integrate public investments and overcome challenges such as slow technological adaptation and rigid organizational structures, improving operational efficiency and emergency response capacity, which strengthens public trust (Saleh & Yusoff, 2020). However, poor strategic management, characterized by unclear objectives, insufficient resources, and resistance to change, can lead to inefficiency and loss of trust in government institutions (León, 2020). Despite these challenges, effective strategic management is key to improving public services and policies, generating value for the community (Bryson & George, 2020). Similarly, in Asia, political pressures on the strategic planning of state investment funds align

investments with national economic agendas, which can compromise profitability and affect the stability of the funds (Dixom, 2022).

Furthermore, although 70% of state entities have strategic planning, its implementation is poor, resulting in delays and inadequate investment management. This negatively affects the beneficiary population, evidencing inefficient use of public resources, higher costs, and lower return on investment (Valencia, 2022). The lack of inter-institutional coordination and adequate monitoring hinders the implementation of sustainable public policies (Elbanna & Andrews, 2020). Therefore, effective strategic planning can mitigate risks and maximize the impact of investments, highlighting the importance of identifying public needs and allocating resources appropriately for the success of projects in the public sector (Catalin et al., 2017).

Strategic planning and the execution of investment projects by public organizations present deficiencies, such as a lack of coordination between levels of government and public institutions, leading to inefficient resource allocation, resulting in unfinished or ineffective projects that do not maximize public benefit and reduce the economic impact of the investment (Inter-American Development Bank [IDB], 2021); The impact of inadequate strategic planning and poor budget management in public administration was felt between 2016 and 2020, when only 37% of the budget allocated to projects was executed due to excessive regulatory oversight and the poor quality of technical files, highlighting the lack of coordination and long-term planning in municipalities (Gálvez, Vallejos et al., 2021); as well as the consequences of the absence of well-defined strategic plans, leading to poor citizen services, inefficient management of investment projects, constant citizen complaints, and frequent staff changes, resulting in fragmented and unreliable public services (Calderon, 2022).

An analysis carried out in public entities in Peru showed that limitations in strategic planning and public investment project management are mainly due to the lack of effective technical instruments and a regulatory framework that is not adapted to the changing realities of the environment, which leads to inefficient execution characterized by delays and cost overruns that deteriorate public infrastructure and weaken its operational capacity (Medina, 2021). Similarly, the Economic Commission for Latin America and the Caribbean warns that weak coordination between strategic planning and budget allocation is one of the most critical factors affecting the public investment system in the country, which is exacerbated by the absence of adequate technical mechanisms to comprehensively evaluate projects and by poor coordination between state sectors (Saldaña et al., 2020), resulting in unsustainable or unfinished investments that hinder the fulfillment of development commitments (ECLAC, 2021).

At the local level, reference was made to research carried out in the city of Lima, which found that investment projects were implemented with limited efficiency due to the lack of functional and structured strategic planning. The background showed that the actions undertaken were characterized by a marked lack of coordination and a reactive approach to problems, which led to duplication in the use of resources and investments that, in many cases, did not respond to the real priorities of the environment. This lack of organization resulted not only in inefficient use of the available budget but also in the absence of appropriate technologies that could have optimized processes in the operational phase. Thus, the lack of a defined strategic guideline considerably reduced the capacity to respond to growing demands in the area of public safety.

It was understood that, by developing an adequate prospective analysis together with a thorough strategic analysis of investment projects in information and communication technologies, the quality and implementation of public initiatives could have been significantly strengthened, achieving greater efficiency in police operating procedures and in the response capacity to events related to citizen insecurity. This would have allowed the security strategies implemented to be more consistent and responsive to the real demands of the Lima Police Region. In addition, the systematic and rational use of available technologies would have facilitated more accurate supervision of the actions carried out by police units, thereby increasing institutional effectiveness in emergency situations and promoting more informed decision-making, aligned with management objectives and the public interest.

The importance of this research focused on understanding how ICT-related technological resources were used in the field of citizen security within the urban context of Lima, considering that their proper use could have had a significant impact on the formulation of strategies, the development of projects, and the evaluation processes that allow for feedback and optimization of the actions implemented. since effective management of these tools would have made it easier to compare the results achieved, thus promoting proposals for improvement aimed at strengthening both the efficiency and effectiveness of public initiatives, which in turn would have favored more structured strategic planning and more relevant implementation of technological projects in relation to police operations and community protection.

This research was part of the university's social responsibility program: Strengthening democracy, leadership, and citizenship; and was consistent with the principles established in Sustainable Development Goal 16: Peace, justice, and strong institutions (United Nations [UN], 2023), whose purpose was to contribute to a preventive approach that would strengthen police operations and reduce levels of insecurity for the benefit of Peruvian society.

The overall objective is to describe the strategic planning for investment projects in information and communications technology for citizen security in Lima, 2025. Similarly, a specific objective was established to describe the strategic planning for the execution, control, and quality of investment projects in information and communications technology for citizen security in Lima, 2025.

II. MATERIALS AND METHODS

The study approach is qualitative, as it is used to collect and analyze data in order to specify research questions or discover new questions during the interpretation process (Hernández et al., 2014). It is oriented toward describing the phenomenon with the aim of understanding and explaining it (Sánchez, 2019). for this reason, it is based on the collection of non-standardized or predetermined data and tends to deepen the understanding of events. The study was developed within the interpretive paradigm based on a relativist ontology, a subjectivist epistemology, and naturalistic methods, focused on the co-construction of knowledge between the researcher and participants (Guba & Lincoln 1994). It was basic research, which aims to generate theories and knowledge, without seeking immediate applications, and whose purpose is to expand existing scientific knowledge. (Hernandez-Sampieri et al., 2018) and a phenomenological design, which facilitated the exploration of experiences and meanings constructed around the established categories. Semi-structured or in-depth interviews were used with participants to access their subjective realities (Cohen & Gómez, 2022). In this regard (Cid et al., 2011) specified that the aim is not to measure or calculate, but to understand a particular phenomenon; consequently, it is to determine how one aspect is linked to another.

The inductive method was used, which is a form of argumentation that starts from knowledge of personal cases to more general knowledge (Rodríguez and Pérez, 2017). This study begins with an individual analysis of events and general conclusions are formulated that are postulated as laws or supports for a theory (Bernal, 2010). Therefore, processes such as classification, establishing patterns, and reaching general conclusions are carried out.

Likewise, it was non-experimental in design, as it was oriented towards a detailed description of conscious experiences with the aim of achieving an essential understanding of the phenomena (Vara, 2015). It focused on relevant research related to human practices and social dynamics (Escudero and Cortez, 2017), which is why direct interviews were prioritized as the main technique. The level or degree of depth or complexity of the study will be grounded theory, which allows for the establishment of a solid foundation by detailing the relevant characteristics and variables of the subject under study, thus providing a complete and detailed overview (Escudero & Cortez, 2017).

The study corresponds to a descriptive design at the interpretive level, which is determined by the explanation and interpretation of the elementary structures of lived experiences (Fuster, 2019). Likewise, Van Manen (2003) indicated that it is the study of everyday experiences that offer us the possibilities of admissible perceptions and that bring us into more direct contact with the element of research analysis, and that these are always the structures of lived meaning.

The categories addressed in this study include, first, strategic planning, understood as a deliberate and disciplined approach to producing decisions and actions that shape what an organization is, does, and why it does it. Bryson (2011) states that this approach articulates objectives, goals, values, and organizational vision, guiding public action in the face of uncertain environments and changing social demands. This contains the subcategories: prospective analysis, strategic analysis, and operational phase. Secondly, the category of investment projects is included, which is conceived as the temporary effort made to create a unique product, service, or result that seeks to improve infrastructure or public services (Kerzner, 2009). It contains the following categories: execution, control, and quality.

Study scenario, according to Taylor and Bogdan (1987), the perfect scenario in research occurs when the observer has easy access, which establishes a genuine immediate relationship with the informants and collects information directly linked to research benefits; care and patience are needed, and data that only occasionally suits their interests is gradually obtained; Likewise, it must be considered that their view of reality is one of many possible perspectives of the world.

The unit of analysis of this qualitative study is made up of specialists and public officials who are involved at different stages of the strategic planning of information and communications technology (ICT) investment projects aimed at citizen security in Lima during the year 2025. These actors mainly include those responsible for planning offices, members of executive units, technical advisors, ICT project managers, and control and quality specialists, all of whom are involved in strategic processes under the regulatory framework of Invierte.pe and CEPLAN.

In order to define this unit of analysis, inclusion and exclusion criteria were applied. Eligible informants were considered to be professionals with at least three years' experience in the management of public ICT investment projects, with proven participation in key stages such as planning, formulation, execution, control, or quality assessment. It was also a requirement that participants hold or have held positions in the public entity under study

with direct responsibility for initiatives related to citizen security in Lima, and that they have given their consent to be interviewed. Administrative or support staff without technical or strategic experience were excluded, as were private sector actors with no direct link to public investment management.

The study participants were a small group of strategic professionals from a public entity in Lima with expertise in ICT investments. Participants were selected non-probabilistically, following an intentional approach, and were determined based on the criterion of theoretical saturation, which is typical of qualitative studies. A total of ten key informants were interviewed, who offered a diverse and specialized perspective on the central axes of analysis: strategic planning, operational execution, control mechanisms, and quality assurance. This strategy allowed for an in-depth understanding of the institutional approaches, technical criteria, and operational practices that currently define the strategic planning of ICT investment projects in the area of citizen security in Lima.

The technique used was the structured interview, which is an interactive method of data collection where the researcher asks open-ended questions and allows the interviewee to express their thoughts and feelings freely and in detail (Ñaupas, 2018). Semi-structured interview guides were used as a research tool for both categories. Before implementation, the interviews will undergo a validation process by experts in the field, for which Aitken's validity will be applied for verification. For data collection, informed consent was requested from the experts in order to apply the instrument. The date and time for the interviews were then agreed upon with the participants, who were explained the purpose of the study, which is purely academic. Sufficient time was taken to collect the information, and the responses were recorded and saved in audio files.

Procedure for data collection: the procedure proposed by Taylor and Bogdan (1987) was considered, which is based on going to the people, immersing oneself in their world, and using mainly observation and in-depth interviews to capture the informants' perspectives, seeking descriptive data (words and behaviors) that reveal the complexity of social life. This process requires patience and care, as the information emerges gradually.

Scientific rigor is frequently used to determine the scientific quality of research and, consequently, its methodological rigor. In this regard, Salgado (2007) established the following evaluation criteria: (a) consistency: semi-structured interviews were conducted with experts working in the areas of planning and investment who are familiar with the issue; (b) credibility: the personnel selected to gather information have worked for many years in the field of planning and investment, and have been assessed on the basis of their experience acquired over many years in the performance of their duties; (c) auditability: the information provided in this study will allow other researchers, through exhaustive traceability from the primary data to the conclusions, to reconstruct and verify the logic and analytical process in other geographical settings; d) applicability, based on its contextualized and replicable approach, with practical relevance and adaptability to other public safety environments, aligned with current public policies, ensuring transferability to similar projects in other regions of the country.

The following processes were carried out for the data analysis method: categorization, which is the constructive critical discussion that seeks to reduce the information; coding, presentation of the expected trend analyses to be transcribed; triangulation, which is the comparison of the data collected; and grounded theory, which allows a good proposal to be made based on the data obtained.

In this regard, Escudero and Cortez (2017) considered that the researcher should resort to preliminary instruments for analyzing the data obtained and processed, whose activities are: a) attempting to narrow the focus of the study; b) permanently reviewing field records in order to determine relevant answers or to reformulate questions that have proved unclear; c) writing notes on anything that represents a key finding for the research topic. Consequently, qualitative research explains the analysis of data from the object of study, using an interpretative method and triangulating the data study (Hernández and Mendoza, 2018).

For the qualitative analysis, this case study adopted an organized sequence that included the preparation, review, and transcription of the data in a structured matrix, which were then sorted into specific thematic categories to facilitate analysis. Initially, data reduction was carried out to filter out negative cases that did not directly contribute to the established objectives. then coding was carried out to identify predictable patterns and trends, and finally, a categorization was performed aimed at critical and in-depth reflection to enrich the interpretation of the findings observed.

Triangulation was a decisive moment in the research process, as it facilitated the comparison of information collected from different sources and ensured its reliability. Once the information was organized and corroborated, the results were presented through an interpretive exercise of the conclusions reached, integrating the findings with the objectives formulated at the beginning of the study. At a later stage, the triangulation technique was applied again, which strengthened the generation of a sustained theory, structured based on the data obtained and consistent with the specific aims of the research work.

In terms of ethics, the anonymity of those who participated in the study was guaranteed, respecting essential ethical principles such as respect for individuals, allowing each individual to make free and informed decisions regarding their participation by signing an informed consent form. This document provided the opportunity to accept or reject their inclusion in the research process, ensuring that all information obtained would be used solely for academic purposes, preserving both confidentiality and professional ethics. Similarly, the overall well-being

of participants was protected through the principle of beneficence, and equity was promoted through fair selection..

III. RESULTS

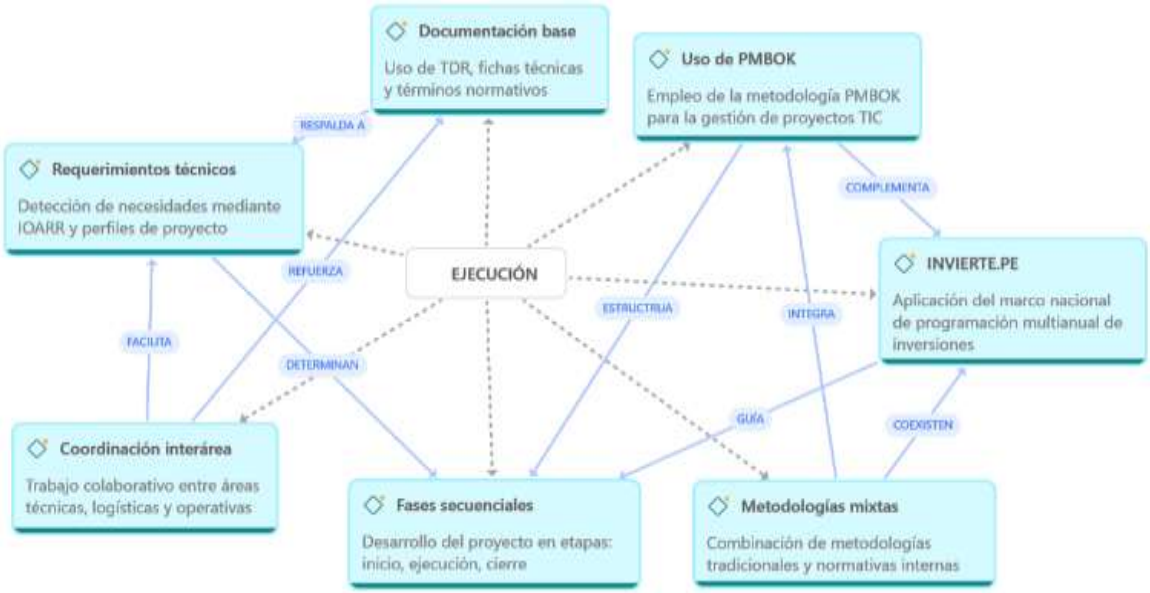
For the presentation of the findings, the main category of strategic planning was considered as the organizing principle, which is broken down into three subcategories: prospective analysis, strategic analysis, and operational phase; and the category of investment projects contains the subcategories: execution, control, and quality.

In relation to the overall objective, which seeks to describe strategic planning for investment projects in information technology and communications for citizen security in Lima, the strategic analysis showed that the institutions were able to articulate their vision and objectives through tools such as strategic maps, quantifiable objectives, SWOT matrices, and planning workshops, which facilitated the conversion of their general guidelines into clearly defined annual operational plans. Prospective analysis made it possible to recognize future scenarios, identify decisive variables, and anticipate risks by monitoring trends, observing current environments, and evaluating technological projections. This subcategory provided strategic value by incorporating uncertainty as a component of the analysis rather than considering it an obstacle, which strengthened the adaptive capacity of state organizations in the face of change. The prospective tools used not only provided elements for adequate planning, but also facilitated the forward-looking allocation of resources and the prioritization of actions in urban contexts marked by high levels of insecurity. And, in the operational phase, planning was understood as the use of specific actions and tactics when recognizing requests and requirements from citizens or institutions, technically evaluating IOARR (Investments in Optimization, Marginal Expansion, Rehabilitation and Replacement), verifying the technical feasibility of initiatives, establishing the expected functional characteristics, and prioritizing interventions from an operational perspective. This ensured that each proposal met both technical feasibility and social relevance criteria, demonstrating that operationality was not detached from strategy but acted as its tangible manifestation at the practical level.

Tacen together, these findings revealed a well-articulated strategic planning model that not only prioritized forward-looking projections and consistent alignment of decisions, but was also deployed in accordance with consistent technical foundations and continuous improvement processes implemented by state entities. The integration of the three subcategories made it possible to understand that ICT projects aimed at citizen security did not respond to circumstantial impulses, but were conceived, structured, and monitored from a logic focused on institutional results. In this sense, the strategic approach not only organized decision-making at a general level, but also guided each phase of the investment cycle, thus ensuring the coherence, sustainability, and effectiveness of public actions aimed at strengthening citizen security.

With regard to specific objective 1, which seeks to describe the strategic planning for the implementation of investment projects in information and communications technology for citizen security in Lima.

Figure 1 Implementation of ICT investment projects for public safety in Lim*a*



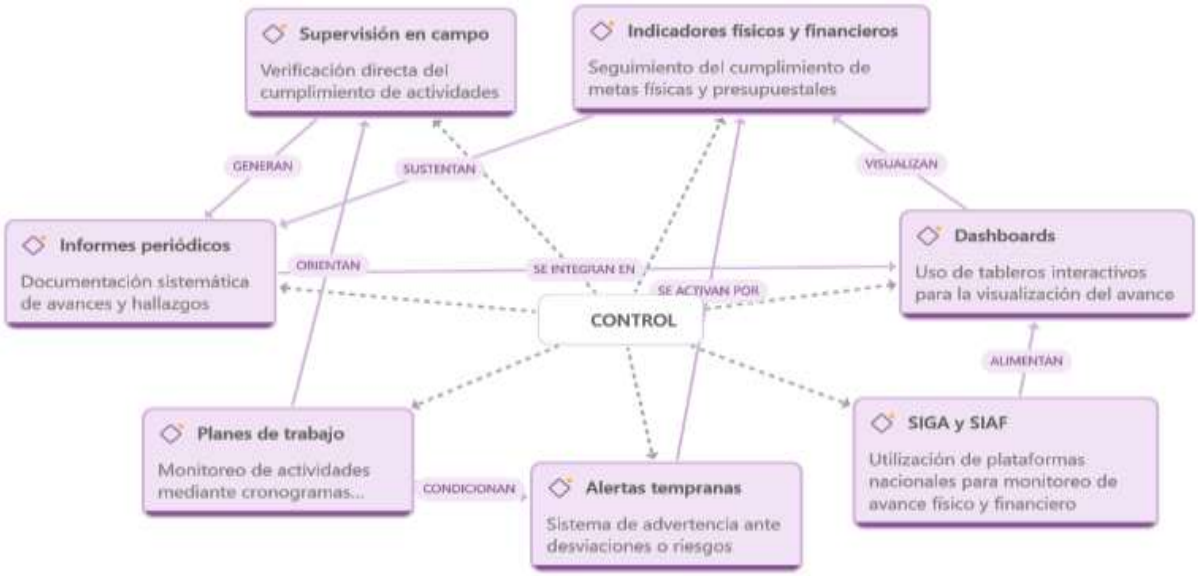
Note: Prepared internally.

Figure 1 shows that the implementation of investment projects focused on information and communication technologies linked to citizen security in the city of Lima responded to strategic planning that integrated regulatory, technical, and methodological elements in an interdependent manner. It was noted that the application of the PMBOK approach organized the development of the project under a structured logic that was compatible with the guidelines of the Invierte.pe system, which enabled the coexistence of mixed methods tailored to the specific conditions of each entity. The implementation was articulated through successive stages defined by previously established technical requirements, which were supported by a monitoring and evaluation system that allowed for the timely identification of problems and the implementation of corrective measures.The implementation was articulated through successive stages defined by previously established technical requirements, which were supported by fundamental documents such as terms of reference and technical data sheets. The coordination between areas promoted more efficient production of technical inputs and facilitated the identification of institutional demands from a comprehensive and participatory approach. This coordinated network of relationships made it possible to understand that the planning process did not follow a linear path or function in isolation, but rather operated as a strategic architecture aimed at ensuring operational efficiency, organizational coherence, and alignment with public policies, while also consolidating an adaptive logic that integrated technical and regulatory frameworks in complex public safety scenarios.

From an analytical perspective within the framework of qualitative research, project execution was closely linked to the technical level of the team responsible, which was made up of specialists in public management, applied digital technologies, and investment structuring. The operationalization of methodologies in real contexts required specific skills, as well as tools to facilitate the transition from strategic design to operational action. In this context, human resource management emerged as a central element that enabled both implementation and the overcoming of recurring obstacles such as high staff turnover, the absence of suitable technical profiles, and institutional resistance to innovation processes. Throughout the deployment, internal control mechanisms were integrated, including follow-up meetings, intersectoral technical validations, and digital tools that enabled permanent monitoring, thus ensuring clear traceability at each stage. These dynamics not only strengthened execution from an organizational perspective, but also provided valuable input for improving processes and supporting strategic decisions, thereby contributing to the consolidation of an institutional culture geared toward efficiency, adaptability, and transparency.

With regard to Specific Objective 2, which seeks to describe the strategic planning for the control of ICT investment projects in citizen security in Lima.

Figure 2 Control of ICT investment projects for public safety in *Lima*



Note: Prepared internally.

Figure 2 illustrates an interconnected network of key components that make up the control process within ICT investment projects aimed at citizen security in Lima. At the center of the model is the control node, from which eight coded elements are deployed that perform specific but complementary functions. The work plans guided the

organization of planning and established the operational dynamics through timelines, which constituted the beginning of the supervision process in the field, providing tangible elements on the progress of implementation. This supervision, together with the use of SIGA and SIAF, feeds into and updates periodic reports, which systematize progress and findings. In turn, these reports are integrated into dashboards, which visualize key indicators for decision-making. Physical and financial indicators support the reports, but also trigger early warnings of deviations or risks, which feed back into the system and condition the reformulation of plans. These relationships demonstrate a circular and iterative logic, where control is not an end point, but rather a hub that allows for course correction and ensures the strategic fulfillment of institutional objectives. Taken together, the control system acts as a technical and regulatory framework that strengthens the transparency, efficiency, and responsiveness of ICT projects, aligning them with government planning standards.

Similarly, it was noted that this control network did not function independently, but maintained close links with other substantive functions such as strategic planning, budget management, and results monitoring. In this context, the control system assumed a dual nature, one technical and the other regulatory. From a technical perspective, it ensured the traceability of the actions carried out, it allowed for comparative analysis between what was planned and what was achieved, and offered timely corrective tools, while in its regulatory dimension it enabled compliance with the requirements imposed by the national regulatory framework, including the General Directive of the National Multi-Year Programming and Investment Management System (Invierte.pe), as well as respect for the principles of transparency and accountability inherent to public administration.

Finally, it was highlighted that this control system promoted an organizational culture oriented toward constant learning and gradual improvement, as it allowed the results obtained to be converted into strategic decisions and operational adjustments, strengthened the institutional capacity to anticipate risks, promoted a more efficient use of public spending, and contributed to legitimizing interventions aimed at improving citizen security. In this sense, control not only fulfilled a supervisory function, but also generated transformations; it not only highlighted deficiencies, but also encouraged concrete responses, becoming a key element in enhancing the impact of ICT projects in complex urban contexts such as Lima.

With regard to specific objective 3, which seeks to describe the strategic planning for the quality of investment projects in information and communications technology for citizen security in Lima.

Figure 3 Quality of ICT investment projects for public safety in *Lima*

Note: Prepared internally.

Figure 3 shows the strategic structure for ensuring quality in ICT investment projects aimed at citizen security in Lima, revealing a control system made up of multiple regulatory, technical, and evaluative mechanisms. First, ISO standards, together with national provisions, standardized and complemented quality parameters, serving as

benchmarks for monitoring specifications, where the correspondence between what was delivered and what was planned was verified. At the same time, this control facilitated the guarantee of technical conformity verified by PNP specialists, which supported approval by the end user. This approval allowed for post-implementation surveys to be conducted to gather perceptions on user satisfaction, the findings of which reflected the technical conformity achieved.

On the other hand, post-service review provides feedback to the system by analyzing the performance of the delivered product, verifying both technical compliance and the standards applied. This review also reports on alignment with national regulations. Together, these interrelated components form a strategic quality assurance cycle, in which planning is expressed not only in regulatory compliance but also in the integration of user feedback and technical processes, consolidating a systemic approach to continuous improvement for ICT projects in citizen security.

In addition, the strategic quality assurance cycle was strengthened by the inclusion of both internal and external audits, which made it possible to detect gaps, anticipate operational risks, and recognize specific opportunities for improvement during implementation. These audits not only assessed the degree of technical and regulatory compliance, but also analyzed the efficient use of available resources and the effectiveness of the control mechanisms deployed. In the same vein, the documentation produced during these stages (compliance reports, validation reports, compliance matrices, and satisfaction records) provided a solid basis for accountability procedures and institutional monitoring. In this context, quality management was not limited to verifying the results achieved, but functioned as a strategic tool for governance, helping to consolidate the sustainability of the technological solutions adopted. Figure 3 shows an active model where quality was not an isolated objective, but a cross-cutting function that accompanied the entire project cycle, articulating technology, regulatory framework, and user experience under a logic of continuous improvement..

IV. DISCUSSION

This discussion is based on findings obtained from two central categories: strategic planning and ICT investment projects for citizen security in Lima. These categories, defined conceptually as formal processes that guide public decision-making (Kerzner, 2009), are broken down into specific subcategories that guide the analysis: on the one hand, strategic planning is structured into prospective analysis, strategic analysis, and the operational phase; on the other hand, investment projects are understood from their execution, control, and quality phases. This dual configuration facilitates the integration of a comprehensive perspective that links strategic foresight with concrete execution. It also allows for comparison between local experiences and global theoretical frameworks and empirical references, thus providing analytical reflection that broadens and deepens understanding of the phenomenon.

In relation to the general objective, the analysis describes the strategic planning applied to investment projects in information and communication technologies aimed at citizen security. A fluid integration between the strategic approach, the prospective view, and operational implementation is noted, which establishes an articulated management framework that favors the efficiency of the process. This finding differs from that of Asmamaw (2024), who, when examining the Ethiopian reality, identified weak governance characterized by centralized decisions and a lack of technical controls, elements that led to an overestimation of benefits and limited execution, while in Lima, solid technical structures were found that allow the strategic vision to be transformed into specific operational interventions.

In low-income contexts, Radchenko et al. (2022) warn that institutional fragility and ineffective public policies have a negative impact on project efficiency. However, this reality is not identical in the Peruvian case, where organized structures that favor both anticipation and strategic coordination are evident. On the other hand, Matos and Chauca (2023) argue that in Peru, well-executed strategic planning has a direct influence on administrative effectiveness and positive public perception, a relationship that is confirmed by the results of this research, since such efficiency is not limited to figures related to budget execution, but is also expressed in the image of a coherent, legitimate and linked to real social demands. In this sense, the use of tools such as SWOT analysis, risk matrices, or scenario planning allows public entities to adapt and, above all, anticipate changes in the environment, strengthening their performance in the face of challenges such as social conflicts, political unrest, or fiscal crises.

From a theoretical perspective, the findings correspond to those of Chandler (1962) and Andrews (1971), showing that consistency between an organization's internal capabilities and environmental conditions effectively guides the achievement of its institutional goals. likewise, the adoption of tools such as SWOT analysis and strategic maps highlights the influence of the ideas developed by Ansoff (1965) and Kaplan and Norton (1996), while the incorporation of forward thinking links directly to the proposals of Godet (1985), who question the rigidity of traditional predictive approaches by promoting a more dynamic and contextual vision. Consequently, this theoretical articulation suggests that strategic planning applied to citizen security projects in Lima transcends a

merely rational and instrumental logic by integrating criteria of flexibility, political orientation, and deliberative construction of the collective course.

As a relevant contribution, this finding deepens the understanding of strategic planning in complex public scenarios, highlighting in particular how the integration of institutional vision, anticipation capacity, and effective execution favors more flexible, technical public management oriented toward the achievement of concrete results (vision, anticipation, and concrete operation). At the same time, it shows that the harmonious use of both strategic and forward-looking tools increases the state's ability to select, implement, and evaluate public interventions with a systemic view, leaving behind rigid bureaucratic schemes and promoting a culture of planning based on evidence (balanced use of forward-looking and strategic tools). Similarly, it allows for the recognition that strategic decisions should not be limited to established regulatory frameworks, but should incorporate structural analyses of the environment in order to formulate more realistic public investment scenarios over different time horizons, in line with the true operational capacities of the state apparatus (structural analyses of the environment).

With regard to the specific objective related to project implementation, it was found that this was organized through methodological integration based on the PMBOK approach and the guidelines established by the Invierte.pe regulatory framework, showing a defined operational sequence, supported by relevant documentation and coordinated through collaboration between different areas. This finding coincided with the views of Ayala and Adrianzén (2022), who pointed out that public investment in Latin America had limitations linked to administrative deficiencies and poor technical coordination, a problem that was effectively addressed in Lima through mixed management strategies. In addition, it was highlighted that the implementation of the PMBOK approach was not adopted as an inflexible structure, but rather as a proposal that could be adapted to the context, allowing for convergence between international standards and local guidelines in order to improve time efficiency, resource use, and the quality of results.

Similarly, Gálvez et al. (2021) point out that technical skill limitations and administrative procedures have a negative impact on project execution. However, the study highlights an institutional context that has developed solid capacities to address and overcome such difficulties. Jarosiński (2023) emphasizes that macroeconomic instability is a factor that hinders the implementation of public investments. However, it is observed that at the local level, this situation is counteracted by careful planning and the support of documentary instruments such as technical data sheets and terms of reference.

Theoretically, the result is in line with the perspective of Kerzner (2009) and Meredith et al. (2017), who understand projects as initiatives with a limited duration and defined structure aimed at achieving specific goals through accepted methodological approaches. At the same time, it is related to the notion of dynamic capabilities proposed by Teece (2007) and Mintzberg's (1994) ideas on the adaptability of organizations.

As a relevant contribution, this finding highlights that coordinated and cross-cutting implementation, supported by technical inputs and cooperation between entities, represents a viable alternative to be replicated in other areas of public administration. This favors greater operational efficiency in the face of the complex dynamics of urban environments, while highlighting the value of coordinating both national and international methodological frameworks, such as Invierte.pe and PMBOK, demonstrating that the ability of institutions to adapt and operate flexibly is essential in the management of technological initiatives related to citizen security. Consequently, the importance of strengthening an institutional culture based on constant learning and progressive improvement, supported by collaborative leadership and oriented towards obtaining tangible and verifiable results, is reaffirmed.

In relation to the objective related to project control, there is a systemic link between technical and financial supervision, which is supported by operational plans, digital tools such as SIGA and SIAF, interactive panels, and a set of strategic indicators. This structure is in line with the findings of Muñoz et al. (2020), who highlight that local governments that manage to integrate planning with efficient control mechanisms show better results in the execution of investment projects. In the same vein, the presence of flexible timelines, physical-financial evaluation matrices, and regular reports has favored continuous and dynamic monitoring of project development. In addition, the incorporation of smart control panels and predictive analysis methodologies allows not only for recording progress, but also for anticipating possible deviations or critical threats, which significantly strengthens the capacity for adaptation and action of the responsible entities.

In this context, Ramos et al. (2021) argue that having permanent monitoring systems in place enables the timely correction of deviations and helps to ensure the achievement of the objectives set by local governments, which is evident in the control mechanisms observed during this study. In contrast, Radchenko et al. (2022) and Asmamaw (2024) emphasize the lack of technical control frameworks in contexts marked by weak institutional development, a situation that differs significantly from that in Lima, where there is evidence of a progressive strengthening of the use of both physical and financial indicators in decision-making processes. This finding, at the theoretical level, is linked to the position of Simons (2013), who argues that management control systems contribute to the alignment between organizational behavior and institutional strategies, as well as to the approach of Thompson and Strickland (2003), who emphasize the importance of maintaining constant supervision.

At the theoretical level, this result is related to the ideas developed by Simons (2013), who argues that management control systems facilitate alignment between organizational behavior and institutional strategies, in line with Thompson and Strickland (2003), who emphasize the importance of maintaining constant monitoring. In this context, control is no longer perceived as a belated response but as an essential component in decision-making, which favors data-driven institutional governance, linking empirical findings with immediate tactical decisions and future strategic projections.

As a relevant contribution, it is evident that control should not be conceived as a conclusive moment, but rather as a constant mechanism that facilitates the continuous review of decisions, the identification of progress, and the strengthening of the institutional structure in the public sphere. In this sense, the strategic function of intelligent monitoring as a key tool in decision-making is highlighted, which supports the need to integrate early warning systems and flexible metrics that allow for the anticipation of risks, promote transparency, and improve each phase of the project implementation cycle (Filgueiras, 2021). In addition, it is essential to formalize risk assessment and tactical adjustment mechanisms that are activated at each stage of the project, as this favors a more efficient response to unforeseen or highly demanding scenarios, especially in sensitive areas such as citizen security (Escobar, 2023).

Finally, in relation to the objective linked to the quality of investment projects, the findings highlight the presence of regulatory frameworks (ISO, national standards), technical validation processes, and measurement instruments such as satisfaction surveys and post-service evaluations. This structure is supported by the findings of Volden and Welde (2022), who argue that quality in public projects requires formal standards, monitoring, and continuous validation by users. Matos and Chauca (2023) complement this view by stating that transparency and citizen satisfaction are direct products of good quality management in public investment. Although the findings of the National Observatory on Citizen Security (2019) reveal that in various regions of Peru, investment is concentrated without clear equity criteria or effective evaluation processes, in Lima this situation is counteracted through technical validations and subsequent surveys that reflect end-user satisfaction.

Theoretically, this finding is consistent with the quality model proposed by the Project Management Institute (PMI) and with the approach proposed by Freeman (1984) when considering stakeholders in the assessment of the final result. It is also consistent with Kaplan and Norton's Balanced Scorecard (1996) by integrating indicators aimed at continuous improvement.

As a contribution, the study reaffirms that quality in public investment transcends the merely regulatory, as it is closely linked to user perception and satisfaction, as well as to the institutional ability to constantly review and improve practices, which contributes to consolidating the legitimacy of public services. In this sense, the evidence gathered promotes a citizen-oriented approach, where both post-implementation evaluation and ongoing technical review are essential pillars of efficient, modern, and socially oriented public management. Likewise, it is evident that the incorporation of tools to measure quality and citizen perception within the investment cycle contributes significantly to strengthening the legitimacy of state action, as it promotes the generation of social trust and enhances public value in the implementation of highly sensitive technological initiatives such as video surveillance systems, data interconnection, and emergency response.

The findings of this research significantly enrich its application in the field of public management, since in the doctoral context, this study strengthens the construction of an analytical approach that makes it possible to understand strategic planning in public investment projects from a systemic perspective, articulating theory, method, and institutional practice. By comparing local evidence with international benchmarks, a situated perspective is generated that facilitates the interpretation of both the strengths and limitations of public management in terms of the design, implementation, and supervision of technological projects aimed at citizen security. This allows for the construction of a theoretical and practical framework that contributes to the improvement of public policies and the strengthening of governance within a framework of sustainability and institutional innovation.

V. CONCLUSION

Strategic planning in information and communications technology (ICT) investment projects aimed at citizen security is a fundamental tool for improving public management in complex urban contexts. It allows the institutional vision to be articulated with the formulation of effective and technically viable policies, ensuring better resource allocation. In the case of Lima, the research showed that this planning is not only reflected in formal documents, but also in operational structures that integrate tools such as SWOT analysis, the PMBOK methodology, and the Invierte.pe guidelines, enabling adaptive interventions geared toward concrete results.

One of the key findings relates to the operational phase, where strategic planning translates into decisions that prioritize technological initiatives based on their feasibility and social relevance. This stage revealed that the effectiveness of the actions implemented depends on clear objectives, inter-institutional coordination, and

technical capacity. In this context, planning was not an isolated act, but a continuous process of analysis, action, and feedback, promoting an institutional culture focused on continuous improvement.

The control system for ICT projects for citizen security was identified as a network comprising physical and financial indicators, technological monitoring platforms such as SIGA and SIAF, and internal audits that made it possible to detect deviations and anticipate risks. This system facilitated evidence-based strategic decision-making and contributed to accountability, transparency, and the legitimacy of public interventions in the eyes of citizens.

With regard to quality, it was evident that compliance with ISO standards, together with the implementation of evaluation mechanisms such as end-user satisfaction surveys and technical validations, strengthened the quality assurance process in ICT projects. Likewise, post-service feedback and external audits made it possible to consolidate a logic of continuous improvement, where quality was not only an expected result but a cross-cutting function that accompanied the entire project cycle.

From the perspective of Lovera (2025), I believe that this research has contributed to highlighting the need to transform traditional approaches to public management towards more flexible, participatory, and results-oriented models. The integration of forward-looking, strategic, and operational tools not only improves project efficiency but also creates conditions for a more solid and reliable institutional framework. This work seeks to be a useful input for decision-makers and public managers committed to the development of safer and more resilient cities.

Finally, Lovera (2025) stated that this thesis does not represent a point of arrival, but rather a starting point for new research that delves deeper into the articulation between technology, public management, and citizen security. Strategic planning must become an entrenched practice in our institutions, capable of anticipating the future without losing sight of the urgent needs of the present. As a researcher, I reaffirm my commitment to strengthening democratic governance, technical leadership, and the sustained improvement of public service in Peru..

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