
Analysis of Project Management Process Groups in urban renewal in the city of São Paulo

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Abstract Urban Renewal Projects (URPs) are concerned with degraded areas or areas that have some historical relevance where projects have been put in place to improve the social environment, the economy, infrastructure recovery and expansion of public areas, public transport and social housing. In urban development, public companies are created to manage these highly complex projects, supported by specific legal instruments. Currently, the average life cycle of these URPs is between 15 and 30 years, from conception to a project's completion. This long term process has consequences, such as obsolescence of projects, loss of objectivity, loss of control and loss of the historical value of the project. This paper studies the public company responsible for managing the URPs in São Paulo, analysing the management processes, organising them into groups of project management processes recommended in 'A guide to the project management body of knowledge', 5th edn, and identifying existing weaknesses in the processes, with the aim of developing an improved model for URP management. This study revealed the following: the lack of a responsible person or department to manage the project throughout its life cycle; a need for greater autonomy for SP Urbanismo (São Paulo's public company), which is São Paulo's public company; and a lack of efficiency in the controlling processes of the projects developed by this company. This paper is part of broader and more detailed research constituting an ongoing master's degree dissertation in the Post-graduate Civil Engineering programme at the Polytechnic School of the University of São Paulo-EPUSP.

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BACKGROUND

Urban Renewal Projects (URPs) are areas, chosen by the Municipality, that require special attention because they are in a state of degradation or have historical relevance. To implement their renewal, the government develops specific urban projects through public companies created to manage them, and they also develop specific laws as instruments for each URP.

The present research focuses on São Paulo city, the most important financial and commercial centre in Brazil, with a population of 11 million inhabitants. São Paulo has the largest number of URPs up and running, and also the greatest experience in URPs in the country.

The city of São Paulo for a long time was confined to the centre, built during the coffee expansion, and only at the beginning of 1940, driven by industrialisation, the city began informal peripheral growth, starting the history of a city without urban planning, as described by Santos:

‘The architectural–urban consequence of this form of urbanisation is a huge waste of space, making São Paulo one extremely chaotic patchwork rug, which is lost in increasingly distant outlying towns. Besides, transportation costs become more expensive as well as installation of urban infrastructure.’¹

The lack of a financial system capable of enabling the acquisition of homes or land by the working class and migrants, added to political neglect, has encouraged slums and tenements, always pushed to the outskirts of the urban area of the city. From 1960, the old centre built in the Brazilian Imperial era began to lose the interest of São Paulo’s elite, owing to the advent of cars and the emergence of new commercial centres such as Avenida Paulista and Faria Lima. As described by Luís Otávio Silva:

‘The years 1960 and 1970 mark a new era in the life of the centre and its relationship with the rest of the city. The consolidation of the automobile and the national automotive industry enabled the creation of new centres while the process of turning São Paulo into a metropolis.’²

Thus, the current centre, although still having a commercial movement, is underused, with many empty buildings and others invaded by squatters, and it presents a high level of criminality. While the city continues to grow peripherally, and as the market’s interest extends to the periphery, URPs are being planned to improve these areas that had grown informally.

The URPs planned in the city of São Paulo are separated into different programmes, which are ‘a group of projects, sub-programmes and related programme activities managed in a coordinated manner in order to obtain benefits which would not be available from managing them individually’, as described in the PMBOK Guide.³ This work aims to analyse Urban Operations and the Urban Operations Consortium. These are pre-determined by a Strategic Master Plan, with a specific law that defines the use and occupation of land in a manner unlike that of the other city regions.

The funds are derived from financial compensation negotiated with investors in the real estate market to obtain more constructed floor area than is permitted by the standard zoning law established for that region. This financial contribution may be made through Certificates of Additional Construction Potential (CEPACs), which are securities issued by the Municipality of São Paulo, by SP Urbanismo, used as a payment counterpart to the granting of Urban Law Additional Right within the perimeter of an Urban Operation. Each CEPAC equals a given

value of square metres for use as an additional area for construction, purchased through auctions conducted by the Security and Exchange Commission of Brazil (CVM), or by cash exchange, buying an onerous grant, which entitles the same increase in additional area.

Despite URPs' possessing the tools provided by law, the format of all the processes to manage these projects is complex. In addition, public companies currently seek greater alignment of interests with stakeholders, greater integration into the globalised context, an increase in the speed of information, and better integration of the renewal areas with the city and its surroundings. Thus, the Brazilian Government is currently developing a Model of Excellence in Public Administration⁴ through conceptual revisions on what are the needs of today's civil society, improvement plan services, public decentralisation, seeking partnerships with private companies, and effective participation of civil society in decision making.

The public company responsible for managing the URPs in São Paulo was, until 2009, EMURB (Municipal Company of Urbanism). This was divided into two other companies: SP Obras, responsible for procurement of contracts and the implementation and management of public works; and SP Urbanismo, responsible for urban projects, plans and their management.

With the restructuring of SP Urbanismo, the internal team lost the clarity of the internal organisational structure of individual goals as well as those of the department and the company. Moreover, coupled with the lack of knowledge on the subject of project management, the company is currently weak in organisation, and the employees are working in isolation.⁵

Thus, it is important to move the SP Urbanismo organisation structure into

Management Process Groups in order to identify the weaknesses in organisational flow and thereby to enable the company to achieve better efficiency in the management of URPs.

PROJECT MANAGEMENT

Project Management is described by the PMBOK Guide as being the 'application of knowledge, skills, tools, and techniques to project activities to meet project requirements'.³

In addition, a project is defined by Lewis as being the 'implementation of multi-tasks, cost, time and scope requirements, and which are performed only once'.⁶

It is interpreted and described by the PMBOK Guide as 'a temporary endeavour undertaken to create a unique product or service'.³ And it was translated and adapted by ABNT by ISO21500, as:

'application of methods, tools, techniques and skills for a project. [...] is done by processes. It is recommended that the processes selected to develop a project are aligned with a systemic view. It is recommended that each phase of the life cycle of the project has specific deliverables. It is appropriate that these deliveries are regularly and critically examined throughout the project to achieve the requirements of the sponsor, customer and other stakeholders.'⁷

ISO21500 was based on the PMBOK Guide (3rd edn, Chapter 3). Therefore, to align with ABNT, the PMBOK Guide (5th edn) was incorporated as Appendix ISO21500, increasing one area of knowledge. The PMBOK Guide describes 'Area of Knowledge' as 'a complete set of concepts, terms and activities that make up a professional field of project management field, or a specialization' (Ref. 3, p. 391).

Urban Renewal Projects are unique results emerging from temporary

endeavours and, as they are large-scale and complex projects, should be planned using well-structured project management methods, studied and adapted to their needs. Thus, the present study uses the PMBOK Guide³ as a didactic method.

For a project to be performed, it must involve multiple processes. These processes are described in the PMBOK Guide as ‘a set of interrelated actions and activities that are performed to create a product, service or a pre-specified result’.³

The integration and interaction of these processes can be organised into five groups of one or more processes according to the PMBOK Guide:

1. *Initiating Processes*: authorising the project or phase
2. *Planning Processes*: defining and refining objectives and selecting the best of the alternative courses of action to attain the objectives that the project was undertaken to address
3. *Executing Processes*: coordinating people and other resources to carry out the plan
4. *Monitoring and controlling Processes*: ensuring that project objectives are met by monitoring and measuring progress regularly to identify variances from the plan so that corrective action can be taken when necessary
5. *Closing Processes*: formalising acceptance of the project or phase and bringing it to an orderly end.

Figures 1 and 2 show the integration of the five process groups, and how the monitoring and controlling process is present in all of them, ensuring their interaction. It is worth pointing out that these process groups are not considered as phases of projects in the PMBOK Guide: they may be repeated at each stage of this project, categorising the same route as the start and end of a project phase. For the present work, however, it will be used

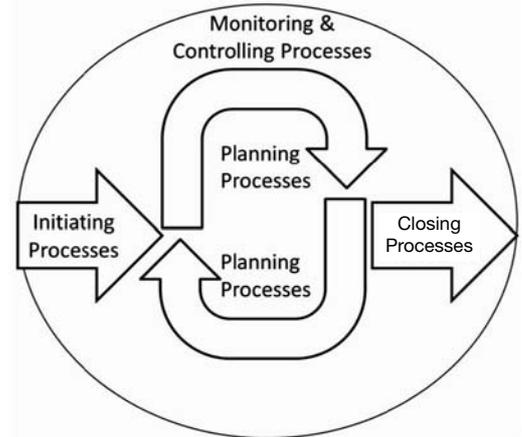


Figure 1: Process Group

Source: PMBOK Guide.³ Adapted by the authors

with a holistic view of the SP Urbanismo enterprise, and therefore these project groups will be the macro structure of the company in relation to urban renewal projects known by the company as Urban Operations (UO) and Urban Operations Consortium (UOC).

PROCESS GROUPS IN URP PROJECT MANAGEMENT

Initiating Process Group

According to the PMBOK Guide,³ the Initiating Process Group defines a new project or phase, where both the initial scope and financial resources are committed, the internal and external stakeholders are identified, and a Project Charter is compiled, which in turn should be evaluated, approved and funded in the external environment of the project.

The Municipality, through the Municipal Strategic Master Plan,⁷ points out which areas should be subject to URPs and, through guidelines provided by Municipal Urban Development (MUD), performs a general feasibility study within the SP Urbanismo public company for each URP, through: market

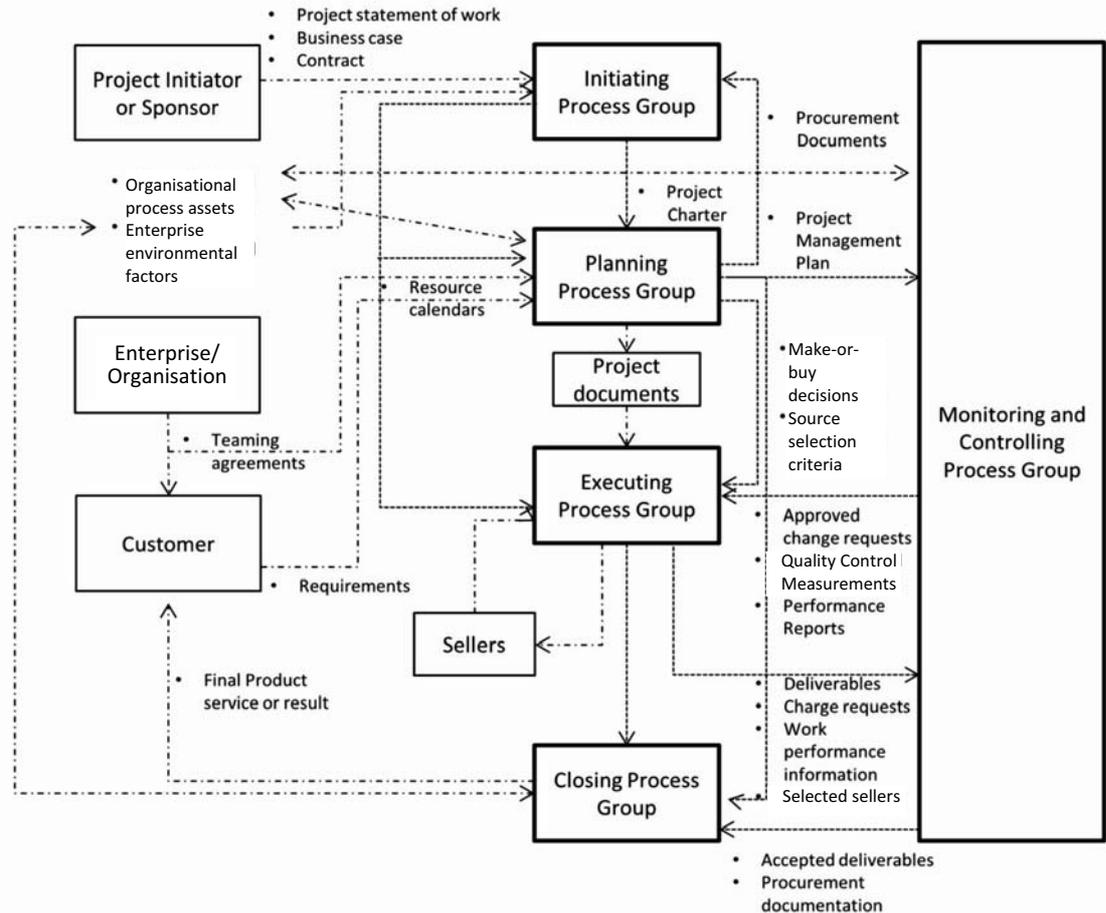


Figure 2: Project Management Process interactions
 Source: PMBOK Guide.³ Adapted by the authors

studies; support capacity; environmental viability through the EIA-RIMA (environmental impact assessment and environmental impact report); and economic studies. These are undertaken by either internal staff in SP Urbanismo⁸ or by specialised private companies contracted through auctions conducted by SP Obras.

From the Economic and Market Study, the preliminary budget is raised, the value of CEPACs is set, and a prospectus is prepared to be issued to the Security and Exchange Commission of Brazil (CVM), which, after approving the prospectus, organises the auction sales of the certificates, thus raising the funds for the

development of URPs and their implementation (see Figure 3).

Upon review and approval of the viability of a URP by SP Urbanismo, a Law Project is developed, which should determine all the proceedings of that URP through the management of this public company. This Law Project goes before the Municipality and, if approved, it is published as a specific Urban Operation Law. If this particular law has been deemed insufficient, or needs some modification, this should be complemented by a Regulator Decree.

The time that the Municipality spends from the concept design of URPs to the Specific Regulator Act or Decree depends

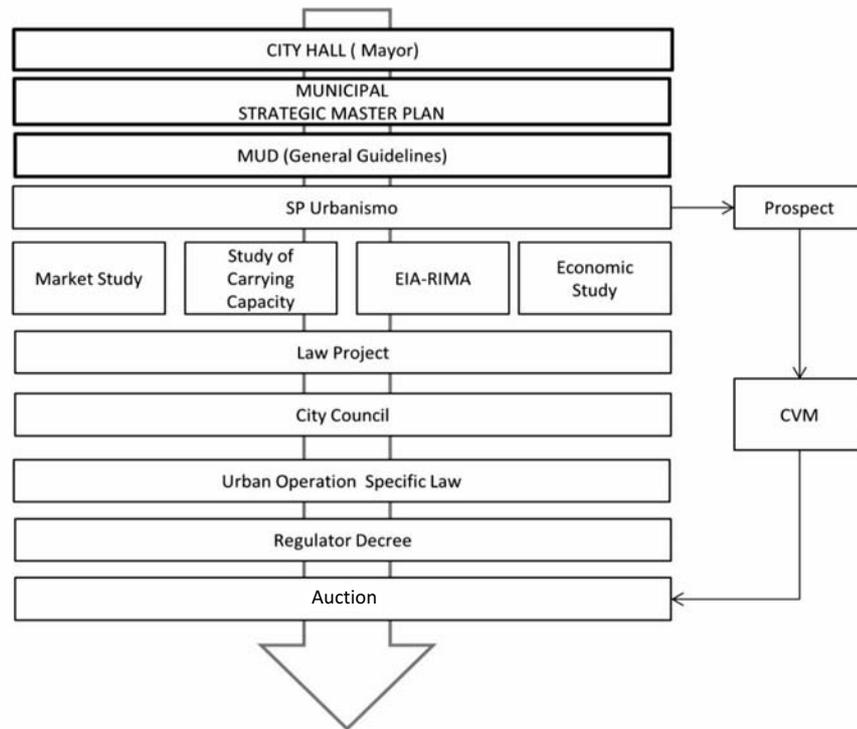


Figure 3: Development URP Process in SP

Source: Organisational chart provided by the internal team of SP Urbanismo, not based on a formal document. Chart developed by the authors

on each project. In the case of ABUO (Água Branca Urban Operation), the first studies date back to 1988, and the specific Law was published in 1995, and then revised from 1999 to 2013, with a total time of seven years for the development of the first version of the law; and after four years, it took 14 years for its review. In AEUO's case (Água Espaiada Urban Operation), the first studies date back to 1989, the Specific Law in 2001, and the Regulator Decree in 2004, taking a total of 15 years. In OUCFL's case (Faria Lima Urban Operation) early studies were developed around 1995, the Specific Law published in 2004, and the Regulator Decree in 2005 and then revised in 2012. It took ten years for the first Decree, and after six years between the Law and the Regulator Decree, one more year.

Once the Specific Laws were published, and with the approval of the Municipality

and the general guidelines of MUD, SP Urbanismo initiated the formation of the Management Group (see Figure 4), which is the gathering of a group composed of representatives of several public companies and civil society representatives. They have a responsibility to set a Priority Plan for the URP's implementation by SP Urbanismo, and track the progress of these projects. The formation of this group is carried out by sending in the names of representatives of all public companies as well as civil society, and after approval by the mayor, through the publication of an ordinance, these representatives are summoned to a meeting, which defines the internal rules and the agreements of that group: the process of work; schedule of meetings; and ways of making decisions.

In a URP, therefore, the Input of the Process Initiation has a long way to go



Figure 4: Initiating Process

Source: Information provided by the internal team of SP Urbanismo, not based on a formal document. Chart developed by the authors

until the specific law is defined and published, and until the release of the sale of CEPACs starting the development of URPs through this Management Group and legal preliminary assumptions.

Analysis of weaknesses and barriers of Initiating Process Group

The time taken for preparation and approval of the specific laws that constitute the preliminary assumptions was found to be an average of ten years — time for natural development of the city itself, and for society to supply many of the deficiencies in the premises that have been identified, making the objectives of the Plan Priorities obsolete. Moreover, the URP's scale of projects is too large to maintain a specific law and a Priority Plan. Lessons should be learned from previous experience at the time that URPs are developed, implemented in accordance with the conditions and nature of a public company, and used to set goals for smaller projects in two-year cycles, thereby achieving more control of the company and the needs of the area.

The major weaknesses are:

1. Length of time for publication of the Specific Law.
2. The collection of financial resources is not tied to the completion of the project, so the government does not have the same urgency as a public company has when it comes to a real estate project; this could generate numerous requests for changes in the interests of each current administration.
3. Direct dependence of the interest of the real estate market in the collection of money compromises the execution of the project, and whether the choice of areas is influenced by the government in the interest of investors and the real estate companies, reversing the initial concept of choosing degraded areas requiring revitalisation;
4. Dependence of the collection of funds through CEPACs or onerous grants makes the timing of the project dependent on the real estate market. If there is a crisis in the market, there will be no investment and, therefore, many projects will have a longer life cycle than estimated.
5. The hire of the team designers as well as the project management to the construction design phase are undertaken by SP Obras, so that, after the schematic design phase, SP Urbanismo no longer has control of the URP, causing a break in continuity and the lack of a process controlling the URP throughout its life cycle.

Planning Process Group

According to the PMBOK Guide,³ the Planning Process Group establishes the scope, defines and refines the project goals and, as long as more information or characteristics are collected, understood and changes are requested, the processes are fed back, and additional schedules are needed (see Figure 5). This progressive breakdown is called 'rolling wave planning'. The main benefit of this group

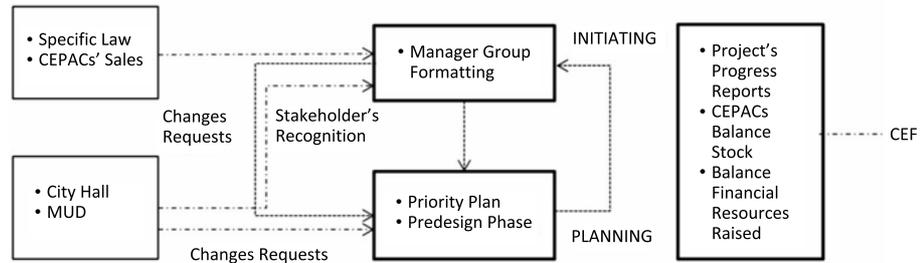


Figure 5: Planning Process Group (MUD: municipal urban development; CEPAC: certificates of additional construction potential)

Source: Information provided by the internal team of SP Urbanismo, not based on a formal document. Chart developed by the authors

is to outline the strategy and tactics, and the course of action or path for completion of the project or project phase.

The Management Group has the responsibility of developing plan priorities, which becomes the basis for targeting applications of funds raised through sales of CEPACs. Thus, after obtaining financial compensation, the Management Group meets to approve the projects that will be developed later to be referred to the Department of Projects within SP Urbanismo, where these projects are developed at the level of Concept Design Phase. It is then forwarded to other public companies to be approved and then developed as the Schematic Design Phase, these companies are: CET (Traffic Engineering Company subject to the Municipal Transportation Bureau in São Paulo), SEHAB (Municipal Housing Secretariat) and Metrô (Metropolitano Company of São Paulo).

The Management of Urban Operations, which is a department within SP Urbanismo, is responsible for coordinating the meetings of the Management Group and the development of reports: the progress of projects; the inventory of available CEPACs; and financial resources collected through the sale of certificates. These reports are forwarded to the Federal Economic Bank (CEF) for control and to

ensure that these resources are being reverted to the URPs.

Throughout the planning process, some changes are requested by the City Council and MUD for inclusion of premises in the Concept Design Phase or even in the Priority Plan, causing the need to update planning, and thus affecting the time and cost originally outlined.

Analysis of weaknesses and barriers of Planning Process Group

Managing the UO and UOCS is in the scope of work of the Management of Urban Operations within SP Urbanismo. In practice, however, this is only controlling the management of the progress of the project and financial resources, leaving to another department within SP Urbanismo (the Project Department) the management of quality, time and human resources of the Concept Design Phase of these projects, and to another department (Management of Economic Studies) the cost management. Moreover, another company (SP Obras) manages the URPs from the Schematic Design Phase to the Construction Design Phase and the management of hiring external staff. There is, therefore, a misuse of this scope of management, and the management structure is closer to a functional structure, where each department has a specific function.

The weaknesses found in this group process are:

1. Submitting SP Urbanismo to City Hall and MUD takes away the company's authority to deny or control requests for changes arising from them, causing instability in control of the processes and increasing the life cycle of the project.
2. The Priorities Plan is developed only once, allowing space for requests for changes outside SP Urbanismo, as above. This should be reviewed at each minor cycle of projects by the company, with the Management Group, and subsequently approved by the City/MUD.
3. The Project Department besides managing the projects also draws the designs. Therefore, there is an overlap of functions affecting the quality and timing of the projects.
4. The Project Department that develops the Concept Designs is not within the Urban Operations Management Department, and is not exclusive to these projects, as it takes care of other urban projects. So if another project has a higher priority, this department may develop URPs more slowly.
5. The organisational structure is organised more by circumstances than by design: the company is required to have management communication and properly prepared information, which does not occur in practice.
6. The scope of deviation of the Management of Urban Operations Department brings disorganisation, uncertainty and lack of clarity for internal staff, compromising the final result of projects.
7. After the closing process of the Concept Design Phase, they develop the Plan Priorities. It is recommended, however, that at this stage a survey of intermediate budget would be helpful

to verify whether the funds raised are sufficient to continue the project, or whether it should undergo a design review in order to reduce costs to suit the available resources. This guarantees that the project is economically viable and ensures that the project is mature enough before its complete development.

Executing Process Group

According to PMBOK Guide,³ the Executing Process Group consists in completing the planned work in compliance with the design specifications (see Figure 6). This group should also coordinate people and resources and manage stakeholder expectations. During this phase of the project, the results may require upgrades in planning, increasing the extension of the life cycle and the cost of the project.

Based on the Concept Designs initiated by SP Urbanismo, bids for hiring outsourced designers under the responsibility of SP Obras are carried out, and from the closing of the Concept Design Phase, this company starts managing the project through to its Construction Design Phase. The Urban Operations Management Department continues to perform the controlling processes, issuing reports to CEF, and updating the Management Group on the progress of the development of the URP.

Requests for changes from the Municipality and MUD continue at this stage, but have greater consequences for cost and time, because the hired professional team is much larger and composed mainly of private companies.

Analysis of weaknesses and barriers of Executing Process Group

The development of most of the project under the responsibility of the same company that runs its implementation

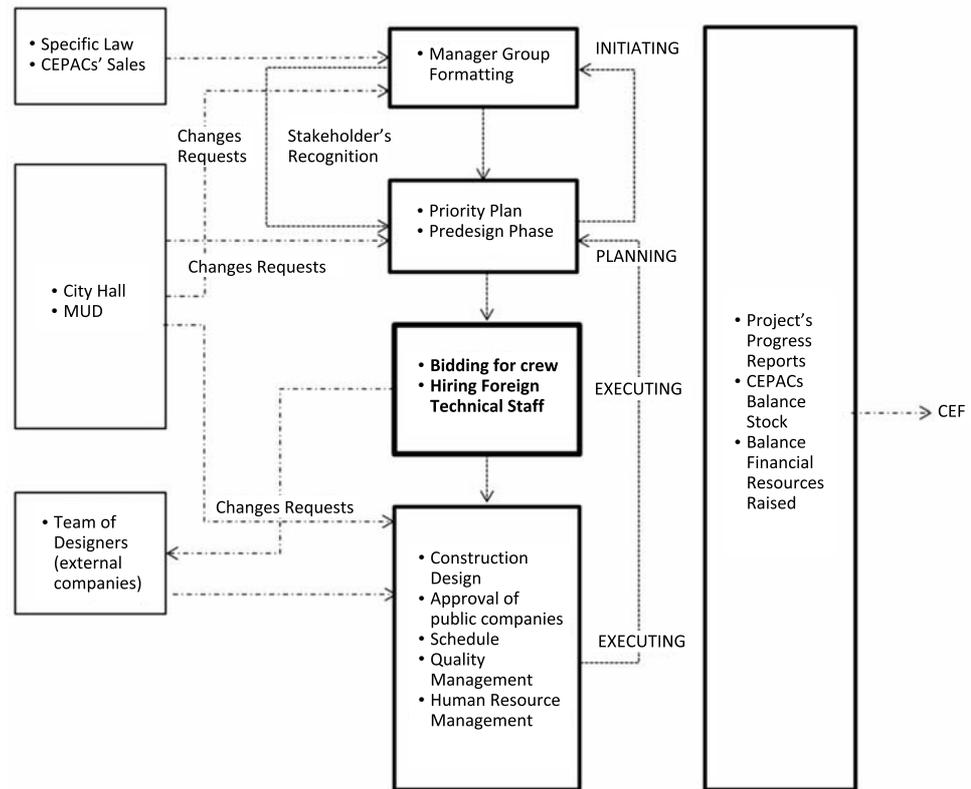


Figure 6: Executing Process Group (MUD: municipal urban development; CEPAC: certificates of additional construction potential; CEF: Federal Economic Bank)

Source: Information provided by the internal team of SP Urbanismo, not based on a formal document. Chart developed by the authors

may compromise the quality of the URP if the project managers and construction company have different points of view. A construction company prioritises functionality and ease of implementation, and has little sensibility to the concept of the project or its aesthetic characteristics, always looking to reduce costs, often causing a distortion of the initial aims of SP Urbanismo.

The weaknesses found in this group process are:

1. Hiring of designers and engineers team is by the company responsible for the implementation of the projects.
2. URP management is by the company responsible for the implementation of the projects.

Closing Process Group

According to the PMBOK Guide,³ the Closing Process Group consists of ending all activities of all groups of processes, aiming to close the project or contractual obligations formally. In this project phase, documentations of Lessons Learned, team evaluation, process improvement recommendations and other survey information can contribute to the next similar project (see Figure 7).

After the development of the Construction Design, a final budget may be raised, this may also result in requests for changes, revocation or postponement of the implementation of the URP. Nowadays, as the management of URPs ends under the responsibility of SP Obras, which in turn is responsible for the

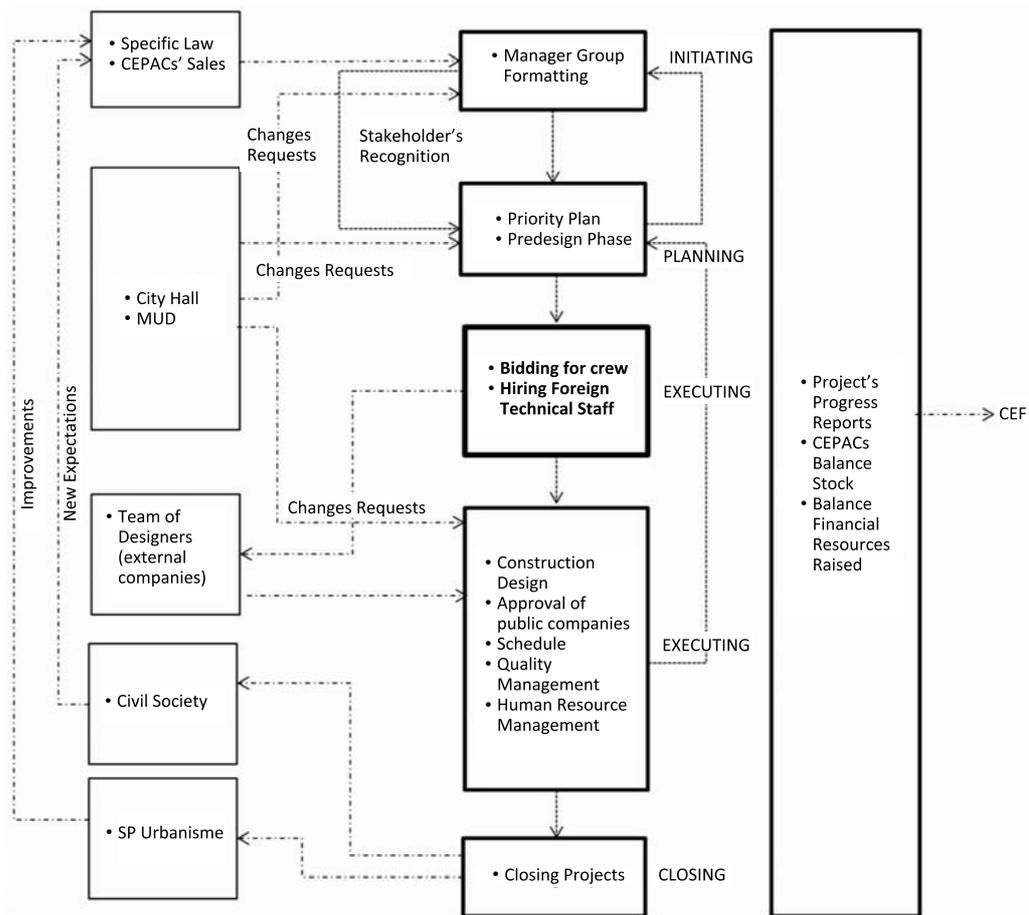


Figure 7: Closing Process Group

Source: Information provided by the internal team of SP Urbanismo, not based on a formal document. Chart developed by the authors

implementation of the projects, there is no formal closing process.

Analysis of weaknesses and barriers of Closing Process Group

The lack of formal closure of projects makes it difficult to control the exact timing of the life cycle of each project. And, added to this, the failure to collect Lessons Learned or formally to record information as the development of a History Report causes dependence on the team that was involved with the project, and therefore risks being a subjective view or having gaps in information.

The weaknesses found in this group process are:

1. No closing process formalisation, undermining the control of the URP data
2. No products developed with past experience such as History and Lessons Learned documents.

CONCLUSION

This study aimed to investigate the processes of URPs known as Urban Operations and Urban Operations Consortium, in the City of São Paulo, through the SP Urbanismo public company. It analysed the management processes used by the company, organising them according to the groups of processes

in the PMBOK Guide,³ and analysing them in order to point out the fragilities found in the Project Management.

The main weaknesses found were:

1. A long time to develop Specific Legislation
2. Dependence on the real estate market
3. Disorganisation in the organisational framework of SP Urbanismo
4. Project Management and hiring by SP Obras
5. Lack of autonomy for the SP Urbanismo public company
6. Absence of communication and information management
7. Absence of Closing Process Groups.

By addressing the weaknesses reported, it is possible to develop a Model of Project Management of Urban Renewal in order to reduce or eliminate them, creating a more efficient process and team.

This paper is part of broader and more detailed research constituting an ongoing master's degree dissertation in the Post-graduate Civil Engineering programme at the Polytechnic School of the University of São Paulo-EPUSP.

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