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**Ph.D. Dissertation of Public Policy**

**Urban Quality Follows the Rules of Bureaucracy:  
Urban Attractiveness, Bureaucracy, and Regulation**

도시공간의 질과 관료경쟁력의 관계에 관한 연구:  
관료제, 규제, 도시매력도 결정요인을 중심으로

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# **Urban Quality Follows the Rules of Bureaucracy: Urban Attractiveness, Bureaucracy, and Regulation**

**Hyemin (Hemin) Choi**

What make cities attractive? Who is responsible for maintaining clean and beautiful cities on behalf of citizens? Can cities become more attractive without an economic sacrifice? This research does not attempt to characterize *beautiful* and *attractive* cities, but rather looks to provide both theoretical and empirical evidence that bureaucratic rules provide important minimum standards for the physical urban condition. Despite local governments and public servants are the keys to enhancing the physical quality of cities, very little has been written on how bureaucratic factors affect urban outcomes, such as the condition of public infrastructure, clean and beautiful streets, and well-managed building exteriors. In that sense, the purpose of this study is to empirically investigate this procedural relationship between bureaucratic activities and maintaining the city's physical attractiveness and quality of life. The dissertation specifically focuses on a cross-national study of cities in low- and middle- income countries (n=116), and comparing them with high income countries (n=57). I hypothesize that bureaucratic process is positively contributes to urban attractiveness in terms of existing physical urban living condition for residents. Bureaucratic process is defined as three dimensions; administrative processing rules, regulatory rules and public officials' rules. This proposition is tested using number of different sources including World Bank's

Dealing with Construction permit index. The results of the analysis suggest that among three dimensions of bureaucratic factors, regulatory quality after construction and public officials' quality were consistently significant factors on urban attractiveness. This study provides policy implications for public officials and decision-makers in developing countries that the necessary precondition for enhanced urban attractiveness is to first reform bureaucracy, then engage in planning to attract more investment and construction, and benchmark successful cases from developed countries for future planning.

**Keyword :** Bureaucracy, Regulation, Urban Policy, Urban Attractiveness, Bureaucratic Competitiveness, Administrative Rules

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도시공간의 질과 관료경쟁력의 관계에 관한 연구:  
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최 혜 민

## **국문 초록**

매력적인 도시는 자본만으로 만들어질 수 있는 결과물인가? 매력적인 도시의 질을 유지하기 위한 책임은 누구에게 있는가? 경제적 자원을 동원할 수 있는 능력이 부족한 도시들은 매력적인 도시를 유지할 수 없는가? 본 연구는 위와 같은 질문으로부터 출발하였다. 도시공간의 질을 높이기 위해서는 균형적인 시장과 정부의 역할을 필요로 한다. 그럼에도 불구하고 도시공간의 물리적 질을 다루는 다수의 선행연구들은 과거 호황기를 누린 산업 대도시들의 경험적 근거와 사례를 바탕으로, 주로 시장의 역할을 중심으로 한 개발과 경제성장을 통해 도시공간의 질이 향상될 수 있다는 표면적인 정책적 처방을 제시하는데 머물러 왔다.

본 연구는 투자에 기반한 경제적 성장은 건설과 인프라구축을 통해 도시공간의 질을 일정 수준 향상시킬 수 있으나, 일정수준의 도시화가 이루어진 이후의 도시미관, 거리의 쾌적함, 건물의 안전등과 같은 사후적인 도시관리는 다시 정부의 영역으로 귀속되는 현상에 주목하였다. 구체적으로는, 매력적인 도시공간은 경쟁력 있는 정부, 그 중에서도 경쟁력 있는 관료를 통하여 조성되고 유지될 수 있음을 이론과 개념을 통해 주장하고, 이를 실증적으로 검증하였다. 도시정부 업무의 대부분이 보편적인 도시공간의 질을 관리하고 유지하는 기능과 밀접하게 관련이 있음에도 불구하고, 행정관료들이 도시공간의 질에 기여하는 긍정적인 부분에 대한 실증적 연구는 여전히 미미하다.

이러한 문제의식을 바탕으로 본 연구는 우선 기존 기업이 활동하기 좋은 도시의 관점에서 정의된 기존의 도시매력도 (Urban Attractiveness) 개념을 살기좋은 도시의 물리적 환경 상태라는 확장된 개념으로 재정의하여 이론적 논의를 확장하였다. 도시매력도는 경제학, 마케팅 그리고 지리학에서 주로 다른 개념이긴 하지만, 도시라는 공간적 단위와 매력도라는 개인의 인식(perception)을 바탕으로 공간의 질적 측면을 모두 다른 개념이라는 장점이 있다. 실증분석시 종속변수로서 도시매력도는 거주자가 살기좋은 가장 기본적인 물리적 공간의 상태로 한정하였다. 이후 116개 중소득·저소득 국가 (low-and middle-income countries)의 각 국가별 대도시들을 대상으로 하여 도시매력도와 관료적 요인의 관계 대한 통계적 실증분석을 실시하였다. 관료적 요인은 행정절차 (건축허가 시간, 절차수), 규제 (건설 이전, 건설과정 그리고 건설이후 관료의 개입정도), 공무원의 질(공무원역량, 재량)로 결정요인을 구성하여 분석하였다. 행정절차의 경우 기존의 선행연구들은 사업개시와 관련하여 기업의 환경적 측면에서 행정절차나 규제를 해석하였다면, 본 연구에서는 건설허가(Construction Permit)를 활용하여 사회적 측면에서 행정절차와 규제를 해석하였다는 점에서 새로운 시도이며, 이는 기존의 도시매력도 선행연구들이 다루던 기업활동을 위한 도시매력도가 아닌 거주자(residents)가 살기좋은 물리적 공간상태를 매력적인 도시로 측정하고 있는 본 연구에도 적절한 대리변수라고 볼 수 있다.

이를 위하여 전 세계 168개국의 대도시로 구성된 3년치 단기 패널자료를 구축하여 통합 OLS, 임의효과, 고정효과 분석모형을 사용하였다. 그러나 자료의 패널기간이 짧고, 관료적 요인이나 도시공간의 질이 단기간에 변하는 속성이 아니며, 모든 국가의 특성을 버리면서 변수의 시계열 적인 변화와 및 그 영향을 논의하는 것이 본 연구의 목적이 아니기 때문에, 최종적으로는 통합 OLS (Pooled OLS)와 임의효과(Random effect)모형만을 주된 분석모형으로 선정하였다. 주요분석 대상은 116개 중소득·저소득 국가의 대도시들을 활용하였고,

이후 52개 고소득 국가(high income countries)에도 동일한 분석을 통해 중·저소득 국가와의 결과를 비교하여 함의를 도출하였다.

본 연구의 분석단위는 도시이다. 그러나 많은 도시를 분석단위로 하는 기존의 선행 연구에서 한계로 밝힌 바와 같이, 연구자의 현재까지 지식으로는 전세계 모든 국가를 포함하는 신뢰성 높은 기관에서 발표하는 다년간의 도시수준 데이터는 없으며, 이러한 이유로 중소득·저소득 국가들을 대상으로 하는 도시연구는 실증분석에서 제외되거나 소수의 고소득 개발도상국 국가들의 도시들만이 분석에서 고려되어 왔다. 이러한 한계점을 보완하기 위해 저중소득 국가들을 대상으로하는 도시변수의 결측치는 STATA 다중대체(multiple imputation) 패키지를 통해 자료를 보정하였다.

실증 분석 결과, 116개국 중·저소득 국가들의 물리적 도시공간의 매력도에 있어서 통계적으로 유의미한 관료적 요인은 ‘사후규제’와 ‘공무원의 역량 및 재량’인 것으로 나타났다. 흥미로운 점은 건축허가(construction permit)의 소요시간인데, 도시공간의 매력도에 있어서 통계적으로 유의미하지 않거나, 오히려 정(+)의 이거나 U자 형태의 비선형 관계를 가지는 것으로 나타났다. 즉, 건축허가 소요시간이 길어져도 물리적 도시공간의 매력도 증진 될 수 있다는 것이다. 시간과 절차를 간소화 해야 산출(output)이나 결과(outcome)의 효과성이 높아진다는 다수의 일반적으로 받아들여지고 기존 NPM 논의에는 배치되는 결과이다. 이에 대하여 본 연구는 행정의 소요시간이 도시가 가지고 있는 문화적 특수성, 지역의 역사, 법률체계 그리고 도시시장의 선출직여부 등에 따라 달라질 수 있음을 설명하였다. 52개국 고소득국가의 물리적 도시공간의 매력도에 있어서 통계적으로 유의미한 관료적 요인은 규제적 요인(사전규제와 건설과정의 규제)이 유일하였다. 이는 고소득 국가에 비하여 중·저소득국 국가의 물리적 도시공간 매력도에 있어서는 관료의 역량이 더 중요하며 사전보다는 사후의 관료의 개입에 따른 관리가 매우 중요한 요인이라는 것을 나타낸다.

추가적으로, 관료적 요인과 도시공간의 매력도의 관계를 이해함에

있어서 본 연구에서 활용한 통제변수들을 주목하여 볼 필요가 있다. 많은 중·저소득국의 도시들은 과거 영국이나 프랑스의 식민지였던 경험이 있으며, 이러한 경험은 과거 도시의 인프라와 형태와 밀접한 관련이 있음은 이미 다수의 기존의 선행연구에서 다루어왔다. 실증분석결과, 본 연구에서는 영국보다는 프랑스 식민지를 경험한 국가들의 현재의 물리적 공간의 도시매력도가 떨어지는 것으로 나타났다. 이는 철도나 도로등을 적극적으로 건설하였던 프랑스 식민지를 경험한 도시들의 인프라의 노후화에 따른 결과임을 유추해 볼 수 있다. 또한 지방정부의 리더가 비선출직 일수록 도시매력도가 높은것으로 나타났는데, 이는 개발도상국의 대도시가 결국 국가의 전체를 대변할 수도 있는 점, 중앙집권적일수록 빠르게 직접적으로 중앙정부의 재원을 도시에 투입하여 관리될 수 있다는 점, 공약이 아닌 중앙과 연계된 장기적인 관점에서 도시가 관리되어 질 수 있다는 점에서 그 이유를 유추해 볼 수 있다.

본 연구는 행정학에서 주로 다루지 않았던 주제를 이론적으로 개념화하고, 실증적 분석을 시도하여 관료들의 루틴화된 의사결정과정(bureaucratic process)과 법에 의한 업무처리가 사회에 기여하는 긍정적인 측면을 논의하고자 했다는 점에서 다른 연구들과 차별된다. 분석결과에 따른 정책적 함의는 다음과 같다. 첫째, 많은 개발도상국의 도시들은 자본만 있으면 도시가 개선될 수 있을 것이라는 환상에서 벗어나야 한다. 경제는 무한정 성장할 수 없으며, 자본의 이기심은 도시공간의 변화만을 추구하며 근본적인 도시의 질을 유지시켜주지 않는다. 본 연구에서도 도시에 관리는 경제적 수준의 문제가 아니라, 그 도시가 가지고 있는 역사적, 문화적 그리고 제도적 요인에 따른 차이가 있음을 보여주었다.

둘째, 도시의 매력도를 높이기 위해서는 선진국의 자본 혹은 제도개혁보다 도시관료의 개혁이 선행되어야 할 필요성이 있다. 본 연구의 실증분석결과에서도 중·저소득국의 도시매력도에 있어서는 사후규제를 통한 관리와 관료의 질이 통계적으로 유의미하게 나타났다.



즉, 절차나 시간 등의 효율성을 증진시키는 목적의 개혁보다 관료의 질이 더 중요한 요소일 수 있음을 보여주며, 선진국의 자본, 기존의 절차나 제도를 통한 개혁이 아닌 관료의 개혁을 통해 도시가 개선될 수 있다는 것을 의미한다. 본 연구의 결과에서도 고소득국가와 중·저소득국가의 도시매력도에 있어서 각각의 관료적 결정요인이 상이한 것으로 나타났다.

결론적으로, 본 연구는 기존의 어느 도시가 매력적인지를 판단하고 벤치마킹식 접근을 통해 도시의 질을 분석한 국가수준 연구와 달리, 모든 도시들은 각자의 매력을 가지고 있고, 이를 유지하고 관리하는 능력에 초점을 두고 실증연구를 하였다는 점에서 그 의의가 있다. 위의 논의를 통해, 본 연구는 도시의 물리적 공간의 질은 행정절차, 규제, 관료의 재량등과 같은 ‘관료의 법칙(rules of bureaucracy)’에 따라 다수를 위한 최소한의 질을 보장할 수 있으며, 이는 도시매력도에 가장 중요한 요인임을 주장한다.

**주요어** : 관료제, 규제, 관료경쟁력, 도시공간, 도시매력도, 개발도상국, 도시정책

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# Chapter 1. Introduction

## 1.1 Motivation

What make cities attractive? Who is responsible for maintaining clean and beautiful cities on behalf of citizens? Can cities become more attractive without an economic sacrifice? This research does not attempt to characterize *beautiful* and *attractive* cities, but rather looks to provide both theoretical and empirical evidence that the rules<sup>1</sup> of local governments and public servants are the keys to enhancing the physical quality of cities. For the purposes of this study, a ‘beautiful’ city refers to the perceived attractiveness of the urban condition (*status quo* of physical condition), which can be maintained via the day-to-day oversight of individual bureaucrats through their ordinary routine. Decision makers often overlook the importance of maintenance and the clean appearance of buildings, streets, infrastructure, and the greater environment, all prerequisites for an attractive city and residents’ fundamental quality of life.

Researchers have long paid attention to the ways in which bureaucratic rules, such as routinized procedure and the impersonality of public officials, may promote fairness in terms of urban public service provision (Jones, 1981; Lineberry, 1985; Frederickson, 1990; Lee, 1994; Tummers et al., 2015), and how these services are effectively delivered to individual client or collective citizens (Stipak, 1979; Lyons et al., 1992; Van Ryzen, 2004; Im & Lee, 2012). However, the impact of the bureaucratic process on physical urban quality has been less visible in the literature. Recently, maintained urban quality, such as street cleanliness or road

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<sup>1</sup> Here, the term “rules” indicates both the policies that bureaucrats need to follow and the rules that affect bureaucrats’ behavior and decision making, such as administrative procedures, implementing regulations, and time.

maintenance, has been discussed as an important public service outcome, since high visibility and citizens' experiences of these basic, everyday manifestations have heavy influences on how they judge their local government (Berman, 2005; Van Ryzin et al., 2008). Few citizens realize that maintaining a certain level of urban quality (such as street cleanliness, safety, and public service accessibility) is a large portion of a public budget<sup>2</sup> and a major outcome of interest for city government. However, the question of how the bureaucratic process affects the physical urban condition still remains largely open.

This research was motivated by the author's past experiences working on infrastructure, architecture, and urban design projects in both developed and developing countries. First, the author witnessed that many city government leaders, local public officials, and urban policy makers who try to manage healthy growth in their cities overestimate what money can do to enhance the urban condition. This tendency, more apparent among cities in developing countries, holds that more public (central government resources and international development banks) and private investment will immediately enhance the physical quality of life in cities. However, there is a limit to the benefits of this market-based approach, since the investors' focus is profit for themselves and not the greater societal good.

Second, practitioner experience indicated that cities in many developing countries relied on past successful cases of urban development, requesting that foreign investors clone an existing project in their cities, and expecting similar consequences, such as economic growth. Conversely, international donor agencies use their influence to recommend and implement policies in the cities of

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<sup>2</sup> For example, New York City's Department of Sanitation employs nearly 10,000 people and expends more than \$1 billion annually for street cleanliness (Van Ryzin et al., 2008).



developing countries without considering bureaucratic context and bureaucratic feasibility (Cohen et al., 1985) and the need to “escape” (avoid) western bureaucratic solutions (Henderson, 2001). Both cases suggest that *what seems optimal to a city in country A may be less than optimal to a city in country B*. It is worth noting that no policies operate in an “institutional vacuum,” and past colonial history, culture, normative values, technology, and political alignment shape institutional readiness (Choi, 2020).

Third, citizens and clients perceive administrative permitting processes to be redundant. Indeed, in the author’s experience, most of the pre-construction stage is dedicated to checking local codes and regulations, obtaining required permits, and consulting with local government and public servants to ensure that the design fulfilled all requirements. All construction, registration, safety inspections, operations, and maintenance demanded interactions with public servants. Suppose a client wants to construct a building in a specific city. Many architects consider building regulations and control to be a technical activity, part of a bureaucratic machine external to the design process (Imrie, 2007). The author, however, realized that the strong link between the administrative process (e.g., issuing permits, managing requirements for building certificate and inspection, etc.) and the life cycle of city buildings and infrastructure serves as a positive mechanism for a better society. These processes are often blamed for project delays, but what if there were no such bureaucratic rules for the construction and maintenance of buildings and infrastructure? Would private investors have an incentive to meet quality standards and take responsibility? In fact, bureaucratic rules provide important minimum standards for the physical urban condition. However, many previous studies considered this relationship only in the context of business entry,

which only partially explains the role of bureaucracy.

Such experiences and hypotheses motivated the author to question whether or not bureaucratic factors, and their quality, contributed to differences in physical dimensions of urban attractiveness for residents. Very little has been written on how bureaucratic factors affect urban outcomes, such as the condition of public infrastructure, clean and beautiful streets, and well-managed building exteriors. In that sense, the purpose of this study is to empirically investigate this procedural relationship between bureaucratic activities and maintaining the city's physical attractiveness and quality of life.

## **1.2 The Purpose of the Research**

This study aims to understand the relationship between elements of bureaucracy (such as administrative procedures, regulatory quality, and public servants' competency) and urban attractiveness (in terms of existing physical urban condition). The scope of this work defines urban attractiveness as the capacity of a city to maintain attractive urban living conditions, from the point of view of residents rather than investors. Next, I acknowledge the psychological and subjective factors inherent in any assessment of urban attractiveness based on existing physical urban conditions. Thirdly, this study focuses on improving the condition of cities through maintenance rather than new construction development. Fourth, empirical studies are examined within the context of developing countries. These considerations will be discussed further in the next chapter of literature review.

This research makes important contributions to the public administration and urban attractiveness literature in several ways. First, it closes an important empirical gap by offering a quantitative assessment of the impact of bureaucratic processes on urban outcomes. Second, this research introduces an as yet overlooked bureaucratic-factor-related variable to the urban attractiveness scholarship. Last, but not least, by examining the “bureaucratic factor-physical urban quality” link, this work illuminates one of the micro-level mechanisms that connects bureaucratic processes and public service outcomes.

### 1.3 Research Design

In this dissertation, I test the effects of bureaucratic factors on urban attractiveness, in terms of maintained physical condition, in order to explore the general relationship between bureaucratic factors and the physical dimensions of urban attractiveness within the context of developing countries. Data was drawn from a cross-country study of cities, particularly those in 116 non-OECD, low-to middle-income countries (LMICs)<sup>3</sup>. Many cities in LMICs are “spectacularly ill-prepared for the explosion in urban living” (Ginkel, 2008). At the lower stages of economic development, investment ratios, human capital accumulation, government policies, and infrastructure conditions can play a very important role (Barro & Sala-i-Martin, 1995); many previous studies emphasized the positive role of bureaucracy (Evans & Rauch, 1999; Olsen, 2006; Cho et al., 2013) in relation to quantitative economic growth. However, few studies have focused on the urban level in terms of bureaucratic processes and qualitative urban condition improvements. In addition to contributing knowledge on bureaucracy and urban attractiveness, this study also sheds light on the understudied case of large cities with struggling economies.

To analyze these relationships, I collected a three-year dataset for independent variables, obtained from 1) the World Bank’s Doing Business Expert Survey Database; Dealing with Construction Permit Index (2016-2018) and 2) Global State of Democracy Indices; Bureaucratic Quality Index (ICRG, 2016-2018); and Rigorous and Impartial Public Administration Scores (V-dem, 2016-

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<sup>3</sup> According to the World Bank classification, low-income economies are defined as those with a GNI per capita of \$1,025 or less in 2018; lower middle-income economies with a GNI per capita between \$1,026 and \$3,995; upper middle-income economies with a GNI per capita between \$3,996 and \$12,375; high-income economies with a GNI per capita of \$12,376 or more.

2018). This study used the Fragile States Index (formerly Failed States Index), produced by the Fund for Peace, for the dependent variable measure. The primary unit of analysis is a city; however, urban- and country-level data are utilized as proxies for certain variables due to lack of data availability. I employed both pooled OLS and random effects models to assess which bureaucratic factors affect urban attractiveness in terms of existing physical urban condition, holding country-level characteristics. The findings suggest that the bureaucratic factor is positively significant for perceived urban quality.

#### **1.4 Plan of this Study**

This study addresses the link between bureaucratic factors and the physical dimensions of urban attractiveness in terms of public service infrastructure. The introduction chapter contains the motivation of the study and the general hypothesis. The second chapter provides a literature review on urban attractiveness concepts, different approaches of government for urban quality management, and current urban challenges in developing countries. The third chapter presents the result of cross-country studies in the context of low- and mid- income countries. Then, the fourth chapter extends the study of an unexpected result from the Chapter 3. Chapter 5 concludes the findings of the overall study, summarizing the results of chapters and discussing the limitations of the study and the future research agenda. In addition, appendixes describe (1) assumptions for this study, (2) urban quality management during the late 19<sup>th</sup> century and (3) case which help to understand the context of this study.

## Chapter 2. Literature Review: Concepts and Context

### 2.1 Introduction

The purpose of this chapter is to propose a theoretical framework of urban attractiveness and rationalize bureaucratic determinants in order to link quality of bureaucracy and physical dimensions of urban attractiveness. As mentioned in the previous chapter, the relevance of this relationship relies on two assumptions. First, while building and maintaining *beautiful* and *visually attractive* cities has occupied governments since the post-industrial era, their relationship to bureaucratic factors has been overlooked. Second, many local public officials and urban policy makers who try to manage healthy growth in their cities overestimate “what money can do,” especially in developing countries. Decision makers tend to consider foreign aid and private investment to be the prevalent solutions to enhancing a city’s quality of life, while many city governments desire more dynamic solutions, such as attracting high-tech entrepreneurs, creative businessmen, and wealthy citizens. However, such solutions do not necessarily improve the maintenance and clean appearance of the buildings, streets, infrastructure, and environment, all fundamental qualities of attractive urban living for residents. This research tries to determine what makes a city attractive, from the managerial perspective of government processes and the importance of local bureaucracy.

The first part of this chapter explains the basic concepts of urban attractiveness and its selection for this study, and investigates which factors (other than economic indicators) have been named its key determinants. Consequently, a

new conceptual definition of urban attractiveness for the field of public administration is introduced, considering bureaucratic quality as a key determinant. The second part of this chapter will discuss urban attractiveness within the empirical context of analysis. Drawing on theoretical insights from cross-disciplinary urban attractiveness literature, the final part of this chapter proposes the hypothesis of this research.

## **2.2 Theoretical Review: Urban Attractiveness**

### ***2.2.1 Basic concepts of urban attractiveness***

This section explains the basic concept of urban attractiveness (the dependent variable in this research) and suggests how the concept, despite its limitations, can be applied to the link between the quality of bureaucracy and the physical aspects of urban living conditions. First, literature on this subject is vast and cuts across multiple disciplines, including architecture, economics, geography, tourism, social psychology, and urban studies. These diverged streams of research target different groups and audiences, from investors, to tourists, to residents. Nevertheless, they all share a core idea for this research: the importance of the *spatial dimension* (e.g. location, region, city, characteristics, environment etc.) and its *quality* (e.g. satisfaction, aesthetics, perception etc.).

Second, the definition of an attractive city originally developed as a conceptual tool to understand a complex and multifaceted set of urban characteristics in a comparative way (Wong, 2006). Despite different interpretations and utilizations of the concept of urban attractiveness, in the recent



literature there is a general consensus about the importance of quality of life (Kourtiti et al., 2020; Daams & Veneri, 2017; Rogerson, 1999), various types of distinct amenities (van Loon et al., 2014; Clark, 2003; Glaeser et al., 2001), and governance factors related to the living environment for residents (Atkinson, 2012; Torisu, 2007). In that sense, there is a discourse shift in the urban attractiveness concept, from firm-centered to people-centered, as residents become increasingly mobile. This shift provides insights to help build a theoretical bridge between quality of bureaucracy and urban attractiveness.

The extensive literature on urban attractiveness defines the attractive city as one which “possesses favorable business and investment climate with standard of living (wealth) and human, capital, and natural resources for productivity”. This conception is often attributed to Porter’s claims that “cities compete like firms to promote productivity”. In order to identify optimal investment locations, Porter (2000) introduced his Diamond Model, or Theory of National Competitive Advantage of Industries, which borrows from neoclassical industrial locational theory and competitive advantage theory to identify and emphasize local-level locational determinants. According to Porter’s theory, firm performance and productivity depend on the quality of the firms’ environment—namely, on locational factors, local demand conditions, strategy, structure, rivalry, and related and supporting industries. As environmental conditions are bound to a firm’s location, it is expected that those with good locational conditions are more likely to attain comparative advantages and, therefore, achieve higher performance and innovation rates, than firms with less-favorable locational circumstances. This line of research considers the city to be the *source* for competition to attract more firms and skilled labor rather than the *outcome* of managed and distributed resources for

better living conditions. The latter theoretical conception will illuminate the missing link between quality of bureaucracy and resident perceptions of urban attractiveness.

As mentioned above, recent urban attractiveness scholars have extended their interest, arguing that offering unique packages of physical and social infrastructure, input costs, lifestyles, tax systems, and environmental qualities are essential for not only attracting firms, but also people. For example, Clark (2000) describes the importance of human resources to companies, arguing that city attractiveness strategies must be related to policies aimed to enhance the quality of life of inhabitants. According to Serrano (2003), urban attractiveness represents an effort to reinvent or redesign a city's resources and institutions to obtain better economic conditions for its citizens, not firms. Consequently, unlike firm-centered urban attractiveness, people-centered comparative attractiveness clearly involves subjective aspects. Since the nature of attractiveness is linked to individual perceptions, its enhancement cannot be achieved without considering inherited social, political, economic, and environmental factors. As Kourit et al.(2020) argued, due to its spirit, history, cultural identity, ambiance, social capital (*soul*) and its built environment, infrastructure, public amenities, supply of housing, and green areas (*body*), attractiveness of cities are inevitably based on residents' perceptions of urban quality.

Given these reasons, Andersson (1999)'s argument that urban attractiveness concepts should be understood in terms of welfare economics becomes more relevant. Defining attractiveness in economic terms produces a conflict between the main economic actors: investors and people. On one hand, investors require that certain conditions be in place before allocating their

economic resources in a city to make profit. On the other hand, citizens need certain spaces and certain conditions to ensure quality of life. While the urban attractiveness concept involves both contradictory and complementary nuances of firm- and people-centered definitions, this study primarily focuses on a people-centered framework, and defines “people” as citizens and/or residents.

### ***2.2.2 Elements of urban attractiveness***

The definition of urban attractiveness is generally understood to be constructed of two structural components that must be specified in advance: *target group* and *city capacity*. In general, as Van den Berg and Braun (1999) defined, urban attractiveness indicates “cities which aspire to become and remain attractive places for (potential) *residents, business and visitors*.” The second component of the definition conveys the concept of city capacity. For example, Potnov and Evyatar (2001) defined urban attractiveness as “the capacity to attract resources (human or economic) and to hold on to existing assets.” Begg (2002) claimed that attractiveness requires a set of policies for investors (public or private) and to enhance location attributes (public capital and market, social, and governance factors). Stewart (1996) and Gordon (1999) defined it as “city capacity to compete [for] resources to attract firms and skilled labor.”

**Table 1.** Examples of urban attractiveness definition structure

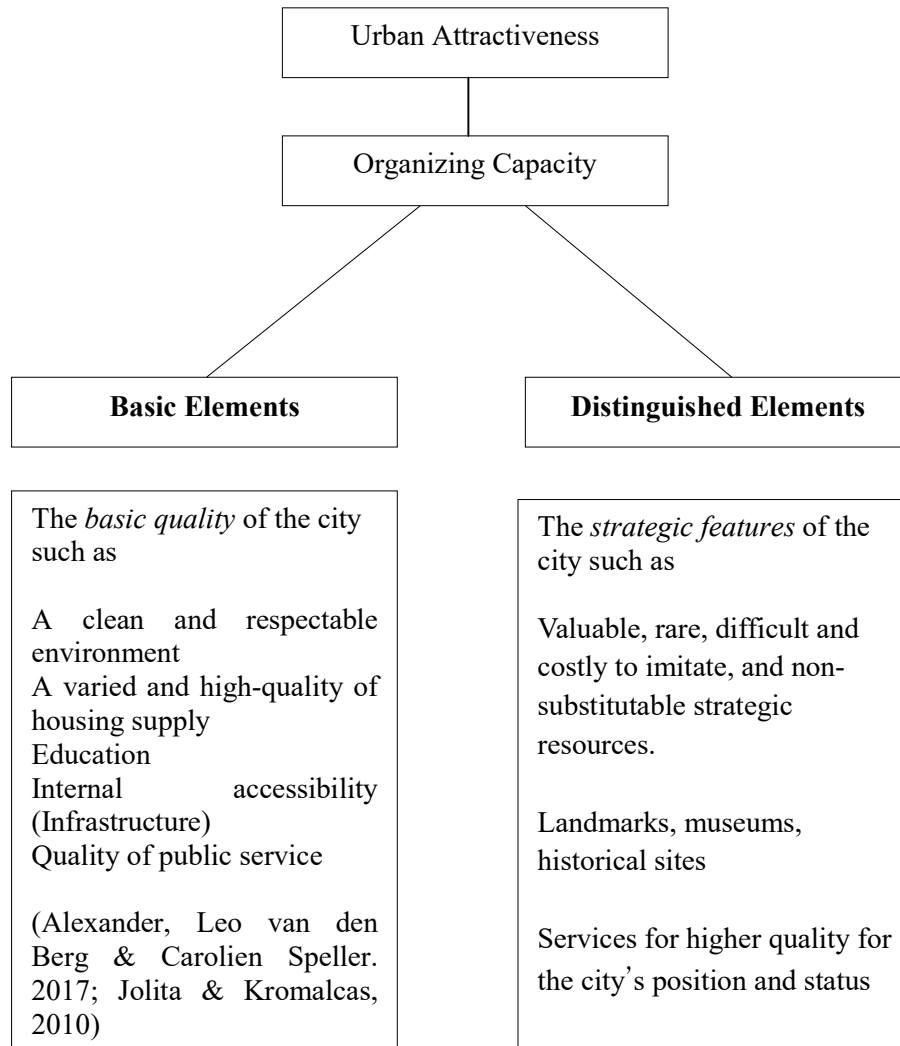
	Target Group	City Capacity
Stewart (1996) Gordon (1999)	firms and skilled labor	City capacity to compete [for] resources to attract firms and skilled labor.
Van den Berg & Braun (1999)	residents, business and visitors	To become and remain attractive the organizing capacity “to create an attractive location climate”
Potnov & Evyatar (2001)	(economic condition)	To attract resources (human or economic) and to hold on to existing assets
Begg(2002)	investor (public or private)	The capacity of city to compete, To enhance location attributes
Kruger, Gibbs and Carr (2018)	(economic condition)	City capacity of “institutional governance” to response
This study	Residents	The capacity of city to maintain a decent quality of physical urban condition

Given this consideration, this study defines urban attractiveness as:

*The capacity of the city to maintain a decent quality of physical urban condition for residents.*

Then what are the elements of the physical urban condition? Several studies have attempted to classify physical characteristics of cities in terms of living quality. Van der Berg et al. (1990, 2007) disaggregated urban attractiveness into two components: 1) a certain level and quality of services known as indispensable, or *basic elements* and 2) a higher quality of services, according to the city's position and status, of *distinguished elements*. The category of basic elements includes a clean and respectable environment, a varied and high-quality housing supply, good internal accessibility, and public services, while distinguishing elements, known in marketing as strategic assets, can be unusual buildings (such as landmarks), museums, historical sites, marketing, and image. According to the resource-based view (RBV), resources and capabilities are the main drivers of sustainable competitive advantage, particularly those that are simultaneously valuable, rare, difficult and costly to imitate, and non-substitutable (Barney, 1991). These strategic assets are embedded in national culture as part of the institutional environment (Barney, 1986). Given this literature review, this study classifies physical elements of urban attractiveness by following the classification system of Van der Berg et al. (1990, 2007). Figure 1 visualizes this classification.

**Figure 1.** Elements of Urban Attractiveness: Basic and Distinguished Elements



Modified based on Van der Berg et al. (1990, 2007)

### ***2.2.3 Determinants of urban attractiveness***

Scholars have identified a number of criteria and factors required by cities to become attractive to residents, such as a strong economy, successful business and housing policy, a supply of essential public services, a pleasant environment, efficient transport and traffic systems, and “something special” (Sinkiene & Kromalcius, 2010). For instance, the European Commission (2010) suggested that an attractive city features such characteristics as an effective structure of economic activities, accessibility and mobility, access to public services and institutions, a knowledge-based society, information tools and resources, an attractive natural and physical environment, and a strong and diverse cultural and tourism sector. The UK Government (2011), analyzing possibilities to strengthen the attractiveness of national cities, focused on the following factors: environmental quality, the quality of public spaces, and a city’s vitality, livability, viability, and image.

More specifically, Van den Berg et al. (2007) argued that factors that make cities attractive differ by core target group; entrepreneurs/investors, tourists, and inhabitants. For *investors*, who value productivity, the quality, availability, and cost of real estate, a friendly tax environment, a conforming labor force, and the presence of both supplier and customer, the qualitative living environment and services provided are important factors. *Tourists*, on the other hand, value short-term consumption, accommodation facilities, access to entertainment and restaurants, public transport, and other immediate amenities. Finally, *residents* value long-term satisfaction, available housing in a clean and safe environment, employment and its various opportunities, and the provision of high-level educational, cultural, health care, shopping, and other services.

In a similar vein, a large existing literature identifies investors (firms or businesses), visitors (tourists), and residents as core target groups when planning the physical aspects of urban attractiveness. The first group of literature primarily focuses on the spatial dimension and its quality to attract investors, firms, and business, specifically, asking how firms choose to locate and the implications for urban productivity (Glaeser et al., 2001). Firms choose their location based on good accessibility, acceptable land prices, local taxes and legal requirements, and sufficient quantity and quality of labor force supply (Berg & Braun, 1999). The market size, city status, living environment, and quality of public services are important as well (reference). Braun (2008) stated that entrepreneurs and investors consider location, built environment, labor force, existing and new customers, suppliers, finance, and partners as a city's most important characteristics for their locational decisions.

The second group of literature, produced by scholars in the field of tourism, discusses the spatial dimension and its quality to attract visitors and tourists. This line of study tends to assess the appeal of cities, attraction and destination quality, tourists' experiences, and locational choices for travel (Crouch & Ritchie, 1999; Dwyer & Kim, 2003). Tourists and visitors choose their location based on short-term needs; their main considerations are cost and type of accommodation (hotel, apartment, camping, family's house, etc.), accessibility of relevant attractions or other facilities or locations, architecture and design, comfort, availability of restaurants, the direct neighborhood, parking facilities, public transport stops, and other amenities. Van den Berg et al. (1995) argue that a city's position as a tourist destination relies on the presence of and access to both primary and complementary tourist products. Primary products indicate the elements that



draw the tourist in the first place, such as attractions, museums, events, the climate, and the landscape, while complementary products are additional, such as hotels, restaurants, shops, and convention centers.

The third category of literature primarily focuses on the spatial dimension and its quality to attract residents. In contrast to factors that attract tourists and visitors for a temporary stay, attractiveness to residents depends on the supply of welfare elements in surrounding municipalities (Berg & Braun, 1999). In general, residents and their families set store by good, affordable dwellings in a clean and safe environment, availability and diversity of employment, and a generous supply of high-grade services related to education, culture, health care, relaxation, shopping, religion, and social security. Similarly, Braun (2008) emphasized jobs, educational institutions, leisure facilities, and other institutions and services. Berg (2008) also highlighted the appeal of a good, accessible, clean, safe environment; good access to employment; high quality educational and health care services; high quality city culture; attention to public safety; religion; and the arts.

Research on residents' locational choice is not a new topic in public administration. Since Tiebout (1956) suggested that people "vote with their feet" to find the community that provides their optimal bundle of taxes and public goods, scholars have evaluated which bundles of government services at what quality actually attract residents. Hirschman's (1970) treatise, *Exit, Voice, and Loyalty*, also discusses this response to customer mobility. What makes residents 'loyal' to their current living environment is related to the 'stability' of residents. However, while such studies suggested what individual services to offer to residents, they did not discuss how to enhance the overall urban quality of life.

#### ***2.2.4 The role of government in urban attractiveness***

As previously discussed, this study defines urban attractiveness as “*the capacity of the city to maintain a decent quality of the physical urban condition for residents*” and the purpose of the study is to uncover how bureaucratic factors determine the physical dimension of urban attractiveness. To the best of the author’s knowledge, very little research has studied the direct relationship between the quality of bureaucracy and the physical quality of a maintained urban area.

However, scholars did not deny the importance of government (both local and central), policies, and institutions. Richard Florida was influential in shifting the urban attractiveness debate from “concept debates” to “policy debates” (2002, 2003, 2008; Florida & Gates, 2001; Florida & Tinagli, 2004), emphasizing the usefulness of urban attractiveness as a policy instrument. Servillo et al. (2011) argued that the attractiveness of the spatial dimension involves three main aspects: 1) the physical asset and its different characteristics, 2) different potential users for whom attractiveness should be measured, and 3) the way such assets are mobilized by governmental and non-governmental organizations and institutional actors. Kresl & Singh (2012) conceptualized government-related factors as *strategic determinants*. By examining 24 large U.S. metropolitan cities and their urban attractiveness, they found that traditional economic determinants do not fully explain why city ‘A’ performs better than city ‘B.’ Other factors include governmental effectiveness, local governance, policy, institutional design, urban strategy, public-private sector co-operation, and institutional flexibility.

A similar view supported by Wong (1998) suggested that not only ‘traditional economic development factors’ (such as physical factors or human

resources) but also ‘intangible factors’ (institutions, quality of life, and business culture) are critical for urban attractiveness. Stewart (1996) proposed that the ‘administrative capacity to compete’ is more essential to urban attractiveness than simple economic determinants.

While most scholarly discussion of strategic determinants considers the role of national government, some stresses the importance of local government at the organizational level. For example, Van den Berg et al. (1997, 1999) identified the “organizing capacity” of policy implementation as critical among various strategic determinants. Hall and Hubbard (1998) argued that organizing capacity should be understood as entrepreneurial strategies. Cheshire and Gordon (1996, 1998) emphasized that policy capacity, the local ability to develop effective policies, is not a random procedure, but interrelated with other factors, the most common of which is the structure of local authority or administrative ability. Therefore, it is important to acknowledge that “city governments, local authorities, and decision makers are highly complex organizations” (PWHC, 2005, 3). The attractiveness of cities is a continuous process, building upon a city’s existing advantages, values, and identity (Sinkiene & Kromalcas, 2010).

### ***2.2.5 Summary***

Though the quality of the physical urban condition is deeply influenced by bureaucratic processes, very little has been written about how these factors affect urban outcomes, such as the maintained condition of public infrastructure and clean, beautiful streets with well-managed building exteriors. In the particular context of developing countries, much of the existing literature and theoretical

perception focuses on the relationship between local economic growth and urban attractiveness, with the goal of attracting more market resources such as firms, skilled labor, and official development assistance (ODA) and foreign investment for more construction and production, without considering the importance and appeal of long-term maintenance itself.

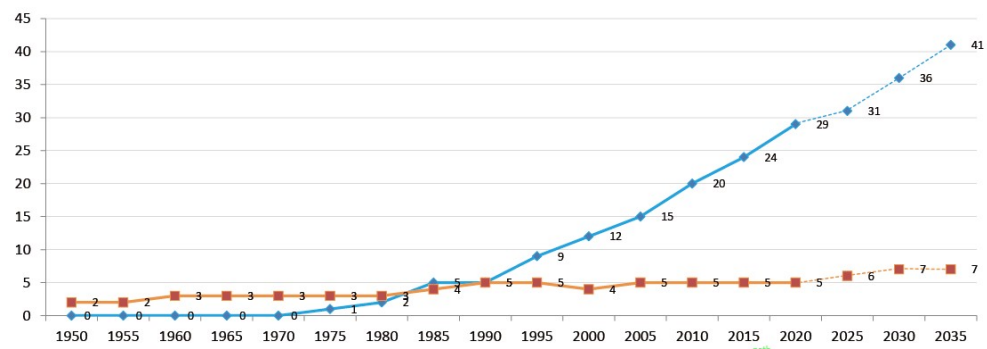
This chapter concludes that the priorities of residents when defining urban attractiveness differ from those of visitors and tourists. Residents value 1) the quality and availability of public services; 2) the quality and availability of publicly-controlled services (energy and water supply, etc.); 3) material welfare, employment, and safety; 4) the quality and availability of health care services; 5) culture and leisure time activities; and 6) a good physical environment, such as benign climate, beautiful scenery, and clean streets. Other significant factors include educational quality and opportunity, safety, ecological quality, and public transport.

## **2.3 Empirical Contextual Review: Challenges of Cities in Developing Countries**

### ***2.3.1 Urban challenges in developing countries***

In the cities of high-income regions, most infrastructure is in place and much of the basic physical urban condition is managed. For these, the challenge is to retrofit the city to make it more sustainable. On the other hand, many of the cities in low-income regions are still growing, demographically as well as economically, and their urban form is still emerging. Cities of developing countries face urban sprawl, environmental pollution, inadequate public transportation, crime, and a stressed public education system. Figure 2 visualizes this fact. In 2020, only five megacities in high-income countries contained a population of more than 10 million; this number is expected to increase to seven cities by 2035. However, the number of megacities with a population of more than 10 million in low- and mid- income countries is rapidly increasing. In 1995, this number was only five, but rose to 15 in 2005 and is expected to pass 40 by 2035.

**Figure 2.** Number of cities with population over 10 million in low-mid income countries vs. high income countries



Source: The World's Cities, UN(2018)

**Table 2. The 20 largest cities in 1950, 2020 (Population)**

City	Country	Population in 1950 (millions)	City	Country	Population in 2020 (millions)
New York	USA	12	Tokyo	Japan	37
Tokyo	Japan	11	Delhi	India	30
London	UK	8	Shanghai	China	27
Osaka	Japan	7	São Paulo	Brazil	22
Paris	France	6	Mexico City	Mexico	22
Moscow	Russia	5	Dhaka	Bangladesh	21
Buenos Aires	Argentina	5	Cairo	Egypt	21
Chicago	US	5	Beijing	China	20
Calcutta	India	5	Mumbai	India	20
Shanghai	China	4	Osaka	Japan	19
Los Angeles	USA	4	New York	USA	19
Mexico City	Mexico	3	Karachi	Pakistan	16
Berlin	Germany	3	Chongqing	China	16
Philadelphia	USA	3	Istanbul	Turkey	15
Mumbai	India	3	Buenos Aires	Argentina	15
Rio de Janeiro	Brazil	3	Mumbai	India	15
St. Petersburg	Russia	3	Lagos	Nigeria	14
Detroit	USA	3	Kinshasa	Dem.Congo	14
Boston	USA	3	Manila	Philippines	14
Cairo	Egypt	2	Tianjin	China	14

\*Cities located in low-mid income countries are shaded in grey color

Source: The World's Cities, UN(2018)

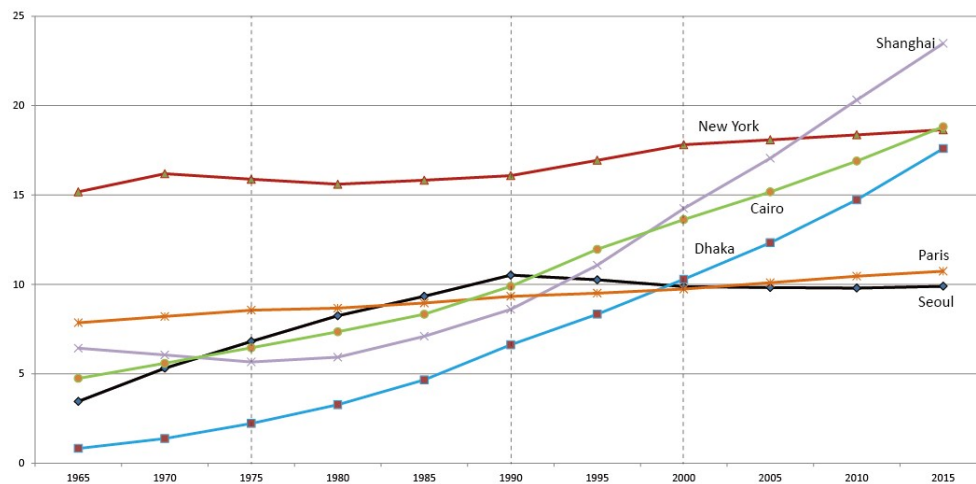
Table 2 uncovers similar insights. First, the list of the world's largest cities is no longer dominated by OECD countries. In 1995, the 20 largest cities were located in early-industrialized countries, such as USA, Japan, UK, and France. The largest city was New York (USA, 12 million), followed by Tokyo (Japan, 11 million), London (UK, 8 million), Osaka (Japan, 7 million), and Paris (France, 6 million). However, in 2020, the largest cities are Tokyo, followed by Delhi (India, 30 million), Shanghai (China, 27 million), Sao Paulo (Brazil, 22 million), Mexico City (Mexico, 22 million) and Dhaka (Bangladesh, 21 million). Among the 20 largest cities, thirteen are located in low- and mid-income countries. Only Tokyo, Shanghai, Osaka, and New York appear in the list in both time periods.

Secondly, the maximum managerial capacity for cities in developing countries has increased. In the 1950s, these cities were responsible for a population of no more than 5 million (Buenos Aires and Calcutta), but the 2019 maximum capacity is 30 million (Delhi). This trend is more evident in low- and middle-income countries that as Figure 3 shows, City of Cairo in Egypt exceeded the population of New York in 2015 and Dhaka in Bangladesh follows similar trend.

Moreover, Table 4 indicates spatial decentralization failure in developing countries. A growing concern among developing countries is unmanageable rapid growth (Jain & Siedentop, 2014). For example, 75% of the population in Paraguay lives in the city of Asunción. Monrovia (Liberia, 57%), Lome (Togo), and Yerevan (Armenia) have similar overpopulation problems.



**Figure 3.** Number of cities population over 10 million in Low-and Middle income countries



Source: The World's Cities, UN(2018)

**Table 3.** Percentage of urban population residing in capital city, 1990 and 2020

Country	Capital City	% of urban population residing in the Capital city (1990)	% of urban population residing in the Capital city (2020)
Djibouti	Djibouti	70.7	73.8
Liberia	Monrovia	89.6	57.1
Togo	Lomé	57.2	50.9
Burundi	Bujumbura	69.0	61.9
Paraguay	Asunción	53.7	75.9
Gambia	Banjul	64.8	31.4
Armenia	Yerevan	49.2	58.4
Mongolia	Ulaanbaatar	45.9	71.9
Haiti	Port-au-Prince	56.0	42.7
Afghanistan	Kabul	59.7	42.6
Congo	Brazzaville	53.1	61.9
Mauritania	Nouakchott	52.4	49.7
Cambodia	Phnom Penh	44.1	51.3
France	Paris	22.1	20.6
Singapore	Singapore	100	100
Japan	Tokyo	33.8	32.6
China	Beijing	2.2	2.4
South Korea	Seoul	33.2	23.5

Source: World Urbanization Prospect, UN report (2018)

### **2.3.2 City Rankings**

Many developing countries desire to catch up to developed countries as quickly as possible. City rankings and indices are handy and oft-utilized reflective tools for showing changes in physical urban outcomes. Every year, various consulting firms and private sector-funded research institutions rank cities by comparing their conditions. For example, Mercer Consulting, which claimed that “attractiveness is the most important pre-condition for the future economic success of the city,” employs an annual ‘Quality of Living’ survey to compare city conditions for attracting international employees. Those conditions span more than ten categories<sup>4</sup>, from a stable political and social environment to the availability of housing, consumer goods, recreational opportunities, and a long list of public services. Their ranking system provides local stakeholders with comparative insight into the city’s strong and weak points, and guides decision makers on how to improve their relative position (Bel, Kourtit & Nijkamp, 2013). Consequently, despite using qualitative and quantitative data of each location’s features, weighting and multiplying indicators may lead to substantially different rankings and scores.

However, following the trajectory of wealthy cities may not provide expected solutions for developing countries, for several reasons. First, as Lora et al. (2010) pointed out, an improvement in international rankings does not necessarily indicate that the city meets its residents’ most basic needs. For example, Santiago,

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<sup>4</sup> Mercer developed a methodology to rank cities with respect to the level of quality of life. The ranking index utilizes 39 indicators grouped in the following categories: political and social context, economical context, cultural context, health, education, public services and transport, leisure, consumption goods, public housing, and environment.

Chile is ranked as the Latin American city with the best infrastructure according to the Mercer survey, but this may reflect the tastes and needs of international business people stationed there. Second, though the basic needs of residents are very similar across cities, and benchmarking or rising up the rankings may identify deficient resources in the specific city, it does not necessarily convey implications of managerial perspective. Early neoclassical analyses predicted that developing countries would grow faster than developed countries, because of technological advances (Radošević, 1999). Keefer and Knack (1997) argued that the obstacle to closing this gap is not fewer resources, but institutional factors, such as inadequate legal, political and regulatory frameworks. They also mentioned the negative effects of arbitrary decision-making among bureaucrats. Bureaucracies are more likely to act arbitrarily under two circumstances: 1) when there are few institutional restrictions on them (for example, when there is no judicial oversight) and 2) when the quality of the administrative officials is poor.

### ***2.3.3 Urban condition of cities across countries***

Traditionally, urban infrastructure is defined as the “sinews” of the city, including its roads, bridges, and transit networks; water and sewer lines and waste disposal facilities; power systems; public buildings; and parks and recreation areas (Tarr, 1984). This system is interlocked with basic government *public services* which refers to any of the common, everyday services provided by federal, state, and local governments, such as education, police and fire protection, emergency medical care, social services, postal service, transportation, road construction, street paving, street cleaning, snow and ice removal, traffic control, street lighting, water supply, wastewater collection and treatment, solid-waste collection and disposal, recreation services, libraries, and parks (Savas, 1978). This research focuses specifically on the public services that enhance street quality, such as air quality, clean water access, electricity, education, sanitation, safety, and public health. Government directly or indirectly manages and/or delivers these services. Although the causality between quality of public service performance and the perception of government is still unclear (Van de Welle & Bouckaert, 2003), citizens consider well-functioning public services to be the main role of government.

Notably, since cities are characterized by a multiplicity of heterogeneous features, one must understand urbanization trends in order to gauge their attractiveness to residents (Kourit et al., 2020). Cities evolved over time; as a consequence, the development of urban systems exhibits not a linear trajectory, but an adaptive and interactive evolution in response to various external factors, such as wars, famine, natural disasters, climatic and physical-geographic conditions, etc. (Tellier, 2019).

Then how do levels of urban attractiveness in terms of public service infrastructure quality vary across countries? Tables 4-7 show the average scores of public services indicators from the Fragile States Index by income group<sup>5</sup>, based on the GNI per capita. As shown in Table 4, among high-income countries, Scandinavian countries display highly-rated urban attractiveness in terms of public service infrastructure quality. Finland scores the highest (10), followed by Denmark (9.97), Norway (9.97), and Switzerland (9.97). Some non-OECD countries in the high-income group, such as Singapore (9.73), Qatar (9.62), and Slovenia (9.48) record higher scores than OECD countries such as Canada (9.53), United States (9.43), and South Korea (9.13). Tables 6 and 7 show upper- and lower-middle income group scores. Among them, Montenegro (7.80) records the highest score, followed by Argentina (7.23), and Romania (7.16), while Republic of Congo records the lowest score (1.70). As shown in the Table 8, low-income group scores vary from 5.43 (Tajikistan) to 1.0 (Congo, Dem. Rep). Tajikistan records the highest score, followed by Nepal (3.83), Rwanda (3.63), and Gambia (3.23).

Importantly, Tables 5-7 prove that middle- and lower-income group countries may record higher scores than high income countries. For example, Armenia (7.40), Argentina (7.23), and Ukraine (7.17) record better scores than the lowest group of high-income countries, such as Bahamas (6.43), Panama (6.11), and Israel (4.17). Moreover, population must be taken into account. High-income

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<sup>5</sup> The World Bank divides the world's economies into four income groups: high, upper-middle, lower-middle, and low. As of 1 July 2019, low-income economies are defined as those with a GNI per capita, calculated using the World Bank Atlas method, of \$1,025 or less in 2018; lower middle-income economies are those with a GNI per capita between \$1,026 and \$3,995; upper middle-income economies are those between \$3,996 and \$12,375; high-income economies are those with a GNI per capita of \$12,376 or more.

countries share 16% of the world's population, while middle- and low-income countries account for 45% and 39%, respectively (Briceño-Garmendia, 2004).

**Table 4.** Country, largest city (urban area), and urban attractiveness in terms of public service infrastructure quality (high-income group)

Country	Largest City	FSI- public service index Score (Avg.2016-2018)
<b>High-Income Group (52 Countries)</b>		
Finland	Helsinki	10.00
Denmark	Copenhagen	9.97
Norway	Oslo	9.97
Switzerland	Zurich	9.97
Netherlands	Amsterdam	9.93
Germany	Berlin	9.87
Sweden	Stockholm	9.87
Austria	Vienna	9.86
France	Paris	9.82
Iceland	Reykjavik	9.80

Singapore (Singapore) 9.73; New Zealand (Auckland) 9.63; Qatar (Doha) 9.62; Australia (Sydney) 9.53; Canada (Toronto) 9.53; Ireland (Dublin) 9.52; Slovenia (Ljubljana) 9.48; United States (New York City) 9.43; United Kingdom (London) 9.42; Brunei Darussalam (Bandar Seri Begawan) 9.17; Korea, Rep. (Seoul) 9.13; Bahrain (Manama) 9.12; Japan (Tokyo) 9.03; Malta (Valletta) 9.03; Belgium (Brussels) 8.97; Luxembourg (Luxembourg) 8.93; United Arab Emirates (Dubai) 8.83; Spain (Madrid) 8.82; Poland (Warsaw) 8.73; Portugal (Lisbon) 8.63; Slovak Republic (Bratislava) 8.63; Croatia (Zagreb) 8.49; Cyprus (Nicosia) 8.48; Czech Republic (Prague) 8.43; Kuwait (Kuwait City) 8.43; Barbados (Bridgetown) 8.40; Seychelles (Victoria) 8.33; Italy (Rome) 8.33; Estonia (Tallinn) 8.13; Latvia (Riga) 8.13; Uruguay (Montevideo) 8.07; Hungary (Budapest) 7.83; Lithuania (Vilnius) 7.53; Oman (Muscat) 7.53; Greece (Athens) 7.23; Saudi Arabia (Riyadh) 7.23; Antigua and Barbuda (St.John's) 7.13; Chile (Santiago) 7.03; Trinidad and Tobago (Port of Spain) 6.73; Bahamas, The (Nassau) 6.43; Panama (Panama City) 6.11; Israel (Tel Aviv) 4.17

Source: Fragile States Index, The Fund for Peace



**Table 5.** Country, largest city (urban area), and urban attractiveness in terms of public service infrastructure quality (upper-middle-income group)

Country	Largest City	FSI- public service index Score (Avg.2016-2018)
Upper-Middle-Income Group (48 Countries)		
Montenegro	Podgorica	7.80
Mauritius	Port Louis	7.73
Bosnia and Herzegovina	Sarajevo	7.43
Armenia	Yerevan	7.40
Argentina	Buenos Aires	7.23
Grenada	St. George's	7.20
Romania	Bucharest	7.16
Costa Rica	San José	7.09
North Macedonia	Skopje	7.07
Kazakhstan	Almaty	7.03
Albania (Tirana) 6.99; Bulgaria (Sofia) 6.87; Belarus (Minsk) 6.83; Malaysia (Kuala Lumpur) 6.83; Russia (Moscow) 6.83; Serbia (Belgrade) 6.83; Jordan (Amman) 6.82; Georgia (Tbilisi) 6.73; Thailand (Bangkok) 6.63; Iran Islamic Rep. (Tehran) 6.53; Turkey (Istanbul) 6.37; Fiji (Suva) 6.27; Samoa (Apia) 6.13; Sri Lanka (Colombo) 5.93; Azerbaijan (Baku) 5.80; Suriname (Paramaribo) 5.43; Maldives (Malé) 5.37; China (Beijing) 5.33; Lebanon (Beirut) 5.33; Algeria (Algiers) 5.27; Belize (Belize City) 5.13; Colombia (Bogota) 5.13; Brazil (São Paulo) 4.83; Guyana (Georgetown) 4.83; Paraguay (Asuncion) 4.83; Jamaica (Kingston) 4.80; Ecuador (Quito) 4.77; Dominican Republic (Santo Domingo) 4.43; Peru (Lima) 4.33; Gabon (Libreville) 4.26; Botswana (Gaborone) 3.97; South Africa (Johannesburg) 3.93; Namibia (Windhoek) 3.63; Guatemala (Guatemala City) 3.53; Venezuela, RB (Caracas) 3.43; Equatorial Guinea (Malabo) 3.23; Mexico (Mexico City) 3.00; Iraq (Baghdad) 2.89		

Source: Fragile States Index, The Fund for Peace

**Table 6.** Country, largest city (urban area), and urban attractiveness in terms of public service infrastructure quality (lower-middle-income group)

Country	Largest City	FSI- public service index Score (Avg.2016-2018)
Lower-Middle-Income Group (43 Countries)		
Ukraine	Kiev	7.17
Tunisia	Tunis	6.63
	Ho Chi Minh	
Vietnam	City	6.33
Egypt, Arab Rep.	Cairo	6.13
Uzbekistan	Tashkent	6.10
Moldova	Chisinau	6.09
Kyrgyz Republic	Bishkek	5.93
Morocco	Casablanca	5.83
Mongolia	Ulan Bator	5.63
Indonesia	Jakarta	5.13
São Tomé and Príncipe (São Tomé) 5.13; Cabo Verde (Praia) 5.03; Micronesia, Fed. Sts. (Island of Pohnpei) 5.03; Bhutan (Thimphu) 4.93; El Salvador(San Salvador) 4.63; Philippines (Quezon city) 4.33; Nicaragua (Managua) 4.32; Bolivia (La Paz) 4.23; Honduras (Tegucigalpa) 4.21; Lao PDR (Vientiane) 4.03; India (Mumbai) 3.63; Senegal (Dakar) 3.54; Ghana (Accra) 3.43; Solomon Islands (Honiara) 3.30; Cambodia (Phnom Penh) 3.23; Zambia (Lusaka) 3.13; Bangladesh (Dhaka) 3.10; Djibouti (Djibouti Ville) 3.08; Pakistan (Karachi) 3.06; Lesotho (Maseru) 2.93; Kenya (Nairobi) 2.83; Comoros (Moroni) 2.83; Timor-Leste (Dili) 2.53; Myanmar (Yangon) 2.40; Côte d'Ivoire (Abidjan) 2.36; Cameroon (Douala) 2.33; Zimbabwe (Harare) 2.23; Sudan (Khartoum) 2.03; Mauritania (Nouakchott) 2.01; Angola (Luanda) 1.97; Papua New Guinea (Port Moresby) 1.90; Nigeria (Lagos) 1.83; Congo, Rep. (Brazzaville) 1.70;		

Source: Fragile States Index, The Fund for Peace

**Table 7.** Country, largest city (urban area), and urban attractiveness in terms of public service infrastructure quality (low income group)

Country	Largest City	FSI- public service index Score (Avg.2016-2018)
<b>Low-Income Group (25 Countries)</b>		
Tajikistan	Dushanbe	5.43
Nepal	Kathmandu	3.83
Rwanda	Kigali	3.63
Gambia, The	Banjul	3.23
Burundi	Bujumbura	3.03
Uganda	Kampala	2.73
Malawi	Blantyre	2.67
Togo	Lomé	2.67
Ethiopia	Addis Ababa	2.47
Benin	Cotonou	2.33

Burkina Faso (Ouagadougou) 2.33; Tanzania (Dar es Salaam) 2.30; Mali (Bamako) 2.23; Sierra Leone (Freetown) 2.03; Madagascar (Antananarivo) 1.91; Liberia (Monrovia) 1.73; Guinea (Conakry) 1.64; Niger (Niamey) 1.63; Mozambique (Maputo) 1.57; Haiti (Port au Prince) 1.49; Chad (N'Djamena) 1.25; Afghanistan (Kabul) 1.18; South Sudan (Juba) 1.02; Central African Republic (Bangui) 1.01; Congo, Dem. Rep.(Kinshasa) 1.00

Source: Fragile States Index, The Fund for Peace

## 2.4 Hypothesis: Quality of Bureaucracy and Urban Attractiveness

As discussed in Chapter 2, previous studies overlooked the relationship between quality of bureaucracy and the physical dimension of urban attractiveness, preferring market-oriented approaches to evaluating the output and outcomes of cities. Previous empirical work using theories of urban/location attractiveness communicates its key determinants in the language of firms and investors, pointing out economic factors such as a favorable environment for business (Porter, 1997) and the quality of jobs and labor (Begg, 2001). Such viewpoints neglect the fundamental user group of cities: *residents*. The appeal of a city depends on a multitude of factors that differ by target group (residents, firms, or visitors). In general, residents look for standard factors such as good affordable dwellings in a clean and safe environment, natural surroundings, and accessibility of services related to education, culture, health care, and relaxation (Van den Berg, 1987). As such, the provision of a certain level and quality of these services are the primary responsibilities of local government. Depending on capacity and effectiveness, the quality of living, or, the environment, infrastructure, and physical and social condition of a city can be improved (Kresl, 1995; Berg & Braun, 1999).

As explained above, Van der Berg et al. (1990, 2007) separated urban attractiveness into two components, basic elements and distinguished elements. Basic elements refers to a clean and respectable environment, a varied and high-quality housing supply, good internal accessibility, and public services, while distinguished elements may be unusual buildings (such as landmarks), museums, historical sites, marketing, and image. This chapter addresses the basic elements of urban attractiveness by empirically investigating the relationship between quality

of bureaucracy (administrative procedure, regulatory rules, public servants) and the maintained urban condition in mid- to low-income countries. Distinguished elements of urban attractiveness will be discussed in the next chapter.

Is a high quality of bureaucracy in government actually associated with the urban attractiveness? In other words, which aspects of bureaucracy determine urban attractiveness, in terms of a decent quality of everyday life? Previous studies suggested that institutional and managerial capacity are required in order to maintain the condition of urban attractiveness (Stewart, 1996; Berg & Braun, 1999; Kruger et al., 2018). The administrative aspects of capacity, regulation, and policy also shape the provision of the physical urban condition. Uniform building codes, administrative codes, housing codes, vacant and abandoned building codes, street cleaning ordinances, and tax rates are examples of tools to improve an urban setting. These tools are used by local bureaucrats to enforce law within their jurisdictions, process permits, and issue certificates.

Bureaucracy provides resources to maintain the quality of urban attractiveness. Urban public infrastructure itself, for example, provides overall benefits to residents, but its safety and accessibility must be controlled in order to pursue maximum benefits for each individual. Corruption in this process may lead to an uneven distribution of public service provision, low quality, and disorder of the urban condition (ex. building collapse, high crime rate, uncontrolled urbanization). Thus, administrative processes and regulatory and bureaucratic quality may positively affect urban attractiveness.

This chapter has discussed theoretical evidence on the link between government factors and the physical dimensions of urban attractiveness, which suggests that a strong theoretical link is still missing. It is not yet certain, however,

whether or not the quality of bureaucracy affects the maintained condition of public service infrastructure. Previous studies within the context of developing states indicated that a strong and well-organized bureaucracy contributed to economic growth, specifically in the Asian miracle economies of the 1990s and more generally among semi-industrial countries (Amsden, 1989; Evans & Rauch, 1999; Wade, 1990; World Bank, 1993). However, little is known about how bureaucracy affects the maintained quality of public services infrastructure at the urban level in a cross-country setting. Given this, the following hypothesis is proposed.

**Hypothesis 1:** A (Weberian) bureaucracy is positively associated with the maintained quality of the physical urban condition for residents in developing countries.

Dimensions of bureaucracy in this hypothesis are identified based on the original insights from Weber's ideal-type: efficiency, rules and requirements, and control by legal power. In particular, rules should be implemented by neutral officials. Previous literature testing the "Weberian state hypothesis" (Evans & Rauch, 1999) captures central government-centered bureaucratic quality; however, it tells us little about how these are associated with a better quality of public service infrastructure for citizens at the local level. This study focuses on the quality of bureaucratic determinants and the maintained urban condition, which are found to be related to building permit administration, regulation, and the competence of public officials. Therefore, the following hypotheses were tested.

***H1a:*** Fewer administrative procedures will exert a positive significant effect on the outcome of the physical urban condition (administrative procedure quality).

***H1b:*** More bureaucratic intervention will exert a positive significant effect on the outcome of the physical urban condition (regulatory quality).

***H1c:*** A bureaucrat's quality will exert a positive significant effect on the outcome of the physical urban condition (bureaucrat's quality).

Furthermore, this study expects to observe that these bureaucratic determinants are more important factors in developing countries, relative to high-income countries. Therefore, the second hypothesis is:

**Hypothesis 2:** Bureaucratic determinants more significantly influence the outcome of the physical urban condition in developing countries when compared to high-income countries.

In that sense, my goal for the next chapter is to present empirical evidence of the baseline relationship between quality of bureaucracy and urban attractiveness using three years' worth of a cross-sectional dataset (max. 168 countries, max. 504 observations). The result will provide a good starting point for understanding why competitive bureaucracy can enhance the quality of the urban condition, and a baseline for further discussions.

## **Chapter 3. Cross-Country Analysis: Data, Measurement and Methodology**

### **3.1 Introduction**

This chapter presents an empirical test of this research's hypothesis, first focusing on low- to mid-income countries, then contrasting those to high-income countries. The main purpose is to explore the general relationship between competitive bureaucracy and urban attractiveness, in terms of the maintained condition of public service infrastructure. This research constructed three consecutive years of a cross-country panel dataset (2016-2018), totaling 168 countries, from the Fragile State Index (previously known as the Failed State Index) - Public Services Indicator (PSI), the World Bank Ease of Doing Business Survey – Dealing with Construction Permit Index, the Global State of Democracy, the UN, and the IMF, and analyzed it using pooled ordinary least square models.

Several cross-country studies have investigated the relationship between government activities (capacity, effectiveness, competitiveness) and the public service provision aspects of urban condition and attractiveness. However, previous studies analyzed how to enhance urban attractiveness by benchmarking western or OECD countries, with the policy goals of increased marketization and Foreign Direct Investment (FDI) through government reform. Though existing urban problems in developing countries are not different from those in OECD countries, existing literature assumes that more 'market money' will solve their problems, and neglects the role of bureaucracy.



### 3.2 Data

Recall that previous studies investigated the link between improved economic performance and a better quality of public service infrastructure in developing countries. Since the 1980s, international donors have recommended the introduction of economic and political reforms in developing countries, with the aims of promoting decentralization, eliminating bureaucracy, and increasing privatization and market-orientation. These studies explored New Public Management reform solutions that met with continued weak economic performance and low development due to over-reliance on low-capacity governments, ignoring differing capabilities for building and maintaining public service infrastructure. This study addresses and analyzes this variable quality of bureaucracy.

Rather than relying on central government-level performance data, as most previous studies have, this research constructed a cross-country dataset on *bureaucracy*, covering 186 countries for three consecutive years (2016-2018). This definition for developing countries is based on the World Bank income classification (low-income  $\leq$ US\$1,005, lower-middle-income = US\$1,006–3,975, upper-middle income = US\$3,976–12,275). Among the total dataset of 168 countries, 116 low- and mid-income countries are used to test empirical analysis and 52 high-income countries are used for comparison.

A critical issue in cross-country studies is data availability, especially at the urban level. The author acknowledges that cross-sectional data is not the strongest option with which to conduct a causal analysis. Also, the index is not an ideal data type with which to see yearly changes (Ko & Samajdar, 2010). Ideally,

one needs a cross-national panel dataset covering an extensive period of years in order to conduct robust causal analysis. However, such panel datasets, measuring diverse dimensions of bureaucracy and urban outcome indicators covering more than 160 countries, are not available yet (Dahlström & Lapuente Jan Teorel, 2011). Due to this constraint, scholars who study the casual relationship between bureaucracy (such as bureaucratic quality) and urban attractiveness in terms of public service infrastructure quality (or public service provision) are forced to limit consideration to OECD countries or rely on case studies. In addition, scholars focusing on urban outcomes admit this issue with reliable, available data and substitute country-level data for local-level data. These reasons help justify the use of cross-sectional datasets using pooled ordinary squares methods in this research.

### ***3.2.1 Missing data treatment***

The author acknowledges the important limitation of cross-country empirical research: the problem of missing data (Castellasi & Miguel Natera, 2001). The missing data problem arises because many of the variables of interest for measuring the characteristics and evolution of national systems are only available for a restricted sample of (advanced and middle-income) economies and for a limited time span only. As a consequence, scholars conducting cross-country analyses are faced with a tough decision: either focus on a restricted country sample for a relatively long period of time, or focus on a large sample of economies for a short time. Both alternatives are problematic: the former neglects the study of NIS in developing and less-developed economies, whereas the latter neglects the study of the dynamics and evolution of national systems over time.

In the sample size (n=168, obs.504) used in this study, levels of missing data for major variables of interests are negligible or can be imputed by other data sources, except for the perception survey variables of the corruption of the public sector and bureaucratic quality. The literature contains several strategies for managing missing data. Leaving it out (known as complete case analysis or listwise deletion) is the simplest solution. While this is the most common approach in public administration literature, it has limitations, because it 1) reduces the sample size, 2) affects the statistical power, and 3) causes the estimator to be biased (citation).

As such, possible solutions have been suggested in the literature. *Single imputation* uses mean or median value across observations or sub-groups to impute missing data. *Multiple imputation* is the latest strategy. Instead of filling in a single value for each missing value, a multiple imputation procedure (Rubin, 1987; 1988; 1996) replaces each missing value with a representation of a random sample of the missing values.

For the data imputation, this study used *mi impute mvn* which fills in missing values of one or more continuous variables using multivariate normal regression (Stata manual 13). It performs multivariate imputation assuming that the data have a multivariate normal distribution, and implements the NORM method of Schafer (1997)—an iterative Markov chain Monte Carlo method (data augmentation) based on multivariate normality (Royston, 2009; Royston & White, 2011). For this study, the primary analysis was executed using multiple imputation methodology, but both *listwise* and *multiple imputation* were reported. As Table 8 shows, this study imputed 6 continuous variables using this method.

**Table 8.** Imputed using multivariate normal regression: Summary

Variable	Mean	SD	min	max	N
Competence of Bureaucracy	0.550263	0.267931	0	1	372
Discretion	0.550195	0.285261	0	1	432
Local Gov. Index	0.67884	0.343538	0.007021	0.998997	412
Log (GDP per Capita)	8.645026	1.43416	5.60489	11.66685	497
Log (Urban Pop)	3.317731	0.57769	1.127893	4.60517	420
Government Size (% of GDP)	16.49761	6.172726	3.590788	55.70285	452
<i>After Imputation (mvn)</i>					
Competence of Bureaucracy	0.524854	0.27033	-0.21017	1.207475	504
Discretion	0.557921	0.281814	-0.06543	1.208522	504
Local Gov. Index	0.681162	0.341199	-0.15239	1.46227	504
Log (GDP per Capita)	8.622351	1.443119	5.426431	11.66685	504
Log (Urban Pop)	3.314759	0.574985	1.127893	4.644523	504
Government Size (% of GDP)	16.44454	6.199517	0.13075	55.70285	504

### **3.3 Measurement**

The primary purpose of this cross-country study is to test how bureaucratic factors (i.e. efficiency, rules, and regulations) affect urban outcome factors (public service infrastructure). To test the relationship, data was obtained from a number of different sources and constructed for 168 countries. Data for independent variables was obtained from 1) the World Bank's Doing Business expert survey database, Dealing with Construction Permit Index (2016-2018), 2) Global State of Democracy Indices, Bureaucratic Quality Index (ICRG, 2016-2018), and 3) the Rigorous and Impartial Public Administration Score (V-dem, 2016-2018). This study used the Fragile State Index (formerly the Failed States Index), produced by the Fund for Peace, for the dependent variable measure. Primary selection criteria for indices and data sources are publication stability and a dedicated expert pool covering over 120 countries for more than five years. Despite greater availability, only three years of data are used for this analysis, because one of the key independent variables, regulatory quality, is only available from 2016.

#### ***3.3.1 Unit of analysis and limitation***

The unit of analysis is urban area (ideally largest city in the country). However, due to issues with data availability, country-level data are utilized as proxy for certain variables, for the following reasons. While local-level data might be more easily obtained if this study decided to focus on a single country, bureaucratic quality within a single country may not be varied as much as it is

across countries.

South Korea is a good case in point. “Korea is a highly centralized state in a highly homogenous society, so that the regions are neither a source of political power in themselves nor distinguished by ethnic, linguistic, or similar differences” (Morriss, 1996). Local governments are still not fully autonomous in expenditure, law making, and enforcement (Park, 2003). In that sense, bureaucratic differences among local governments are minimal. In a more decentralized state structure—the US, for example—local governments are autonomous, but their bureaucratic quality and urban public service infrastructure are based on strong “market” outcomes, which may provide biased empirical evidence. Thus, this study justifies using country-level data in order to understand which dimension of bureaucracy affects public service infrastructure quality, which forms the standard of urban attractiveness.

### ***3.4 Dependent variable***

The dependent variable of this research measures whether basic elements of urban attractiveness are well-maintained for residents. This study utilizes the *public service indicator* (P2) originating from the Fragile States Index. A number of indicators measure similar topics (WEF’s Quality of Infrastructure, EIU’s city competitiveness), but the FSI-Public Service Indicator covers the most extensive geographical region (178 countries) and has consistently produced its rankings since 2006. Furthermore, it is one of a very few indicators produced annually by a non-consulting/business firm. The FSI-Public Services Indicator measures the

presence and maintained condition of basic infrastructure at any given moment. It is aggregated from pre-existing quantitative datasets (mainly from international agencies), content analysis of publications (English-language sources such as media articles), and qualitative expert review.

Sample PSI survey questions ask about equal and adequate access to, or the general condition of, the following: 1) general provision of public services, 2) health (access to medicine, number of hospitals, water, sanitation, mortality), 3) education (education enrollment, literacy rates), 4) shelter (access to housing, housing costs), and 5) infrastructure (roads, airports, railroads, fuel supply for sustainable development). These survey questions reflect what this study defines as the basic elements of urban attractiveness, based on the classification of Van der Berg et al.: “basic quality such as a clean and respectable environment, a varied and high-quality housing supply, and good internal service accessibility are the indispensable ingredients of an attractive city” (1990; 2007).

The FSI-Public Service Indicator produces an aggregated score based on the data collected using these questionnaires. This aggregated perception score has values in the continuous range from 1-10, where 1 represents the most stable, good quality, and 10 represents the least stable, bad quality. For easier interpretation of the results, this scale was reversed to make a higher score represent well-maintained quality of public service infrastructure.

### ***3.5 Independent Variable***

#### ***3.5.1 The concept and context of proxy variable: construction permit***

The WB's Dealing with Construction Permit (DCP) measures the required process to build a warehouse, including obtaining all necessary plans and surveys, obtaining and submitting all relevant project-specific documents, obtaining all necessary clearances, licenses, permits and certificates, submitting all required notifications for the start and end of construction, and requesting and receiving all necessary inspections. This understudied, unique, and important administrative concept is worth discussing further. Previous studies (e.g., Kaufmann & Bozeman) often considered bureaucracy through the lens of a business start-up, by measuring the cost of obtaining the business permit and associated red tape and regulation.

This work specifically uses the setting of the building permit<sup>6</sup> procedure for the following reasons. First, this process is chained, from pre-consultation, phasing, submission demands, checks carried out, plan approval, objections and appeals, start of construction, frequency of site inspections, fees, to completion of construction. This process truly depicts bureaucratic administration, consistent with a comprehensive "system of rules" (Parkin, 1996), marked by a complex division of task specialization, hierarchical layers of authority, technical competence, and rules of procedure.

In this empirical study, three types of independent variable dimensions from three different sources are utilized to measure the quality of bureaucracy<sup>7</sup>. The first and second independent variables, *administrative procedure quality* and *regulatory quality*, were collected from the World Bank's Dealing with

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<sup>6</sup> In this study "construction permit" and "building permit" are used interchangeably.

<sup>7</sup> Here, bureaucracy indicates Weber's model of bureaucracy.



Construction Permit Index. The third independent variable, *quality of public servants*, comes from ICRG and V-Dem expert survey data, obtained from the Great State of Democracy Index.

### **3.5.2 Administrative Procedure Quality**

The first dimension of bureaucracy, *Administrative Procedure Quality* (*APQ-Proc*, *APQ-Time*), uses two variables: *number of required procedures* to obtain a construction permit and its *total time*, following a previous study that explores the red tape effect. *Procedure* (*APQ-Proc*) is the number of procedures required to comply with the formalities to build a warehouse in the largest city of each country. All procedures that are legally required and that are practiced by a majority of companies (such as obtaining a building permit or obtaining topographic or geological surveys) are counted. *Time* (*APQ-Time*) refers to the number of calendar days capturing the median duration that local experts indicate is necessary to complete the above procedure in practice. If a procedure can be legally accelerated for an additional cost, the fastest procedure is chosen if that option is more beneficial to the economy's score.

Classical discourses on administrative procedures and time comprise the scholarship on red tape. Red tape refers to formal rules that apply to official administrative procedures. Excessive numbers of total guidelines (for expected and unexpected activities), procedures for implementation, and required forms and records, however, have been criticized as the causes of slow administrative procedures and bureaucratic inefficiency (Bozeman, 2000, 1993; Bozeman & Scott, 1996; Rosenfeld, 1984). Total time is an implicit measure and residual of formal

procedural delays (Pandey & Bretschneider, 1997; Bretschneider & Bozeman, 1995; Bozeman, 1993). Moreover, time quantity may correlate with supply-demand balances of urban infrastructure provision (Choi, 2018; Guy & Marvin, 1996). This research, however, interprets time as a tool of managerial organization.

### 3.5.3 Regulatory Quality

The second dimension of bureaucracy, *regulatory quality*, was measured using three variables from the WB's building quality control index from the Dealing with Construction permit data. All original index scores were rescaled from 0-1 to avoid interpretation of multiple scales. The main advantage of the building quality control index is that it distinguishes three stages of regulatory quality control: before (ex-ante), during (ex-interim), and after (ex-post).

The first variable, *ex-ante regulatory quality*, uses the *Quality control before construction index* (RQ-Before, scale 0-1). This index measures whether the city government (or the relevant permit-issuing authority) requires an expert (such as a licensed architect or engineer) to be part of the committee that reviews and approves building permit applications. 0 is assigned if no experts are involved in the review to ensure their compliance with building regulation; 1 is assigned if it is required.

The second variable of this dimension captures regulatory quality during implementation (RQ-During). The *Quality control during construction index* measures whether inspections are mandated by law during the construction process (scale 0-2) and whether inspections during construction are implemented in

practice (scale 0-1). The index ranges from 0 to 3, with higher values indicating better quality control during the construction process. A score of 2 is assigned if the government agency is 1) legally mandated to have an external expert conduct technical and risk-based inspections at different stages during the construction, and 2) required to submit a detailed inspections report at the completion of construction. A score of 1 is assigned if the government is legally mandated to conduct only technical inspections. A score of 0 is assigned if a government agency is legally mandated to conduct unscheduled inspections, or if no technical inspections are mandated by law. In terms of inspection in practice, a score of 1 is assigned if the legally-mandated inspections during construction always occur in practice, and 0 if the legally-mandated inspections do not occur in practice.

The third variable of this dimension captures ex-post regulatory quality (RQ-After), which uses *the quality control after construction index*. It measures two components: 1) whether a final inspection is mandated by law in order to verify that the building was built in accordance with the approved plans and existing building regulations (scale 0-2) and 2) whether the final inspection is implemented in practice (scale 0-1). A score of 2 is assigned if government-employed experts are involved in the final inspection (an in-house supervising engineer, external supervisor, or government agency). A score of 1 is assigned if the legally-mandated final inspection only involves private experts (supervising engineer or firm), and 0 if no final inspection is mandated by law after construction. To gauge whether the final inspection is implemented in practice, a score of 1 is assigned if the inspection after construction is legally required, and 0 if the legally-mandated final inspection does not occur in practice.

### 3.5.4 Quality of Public Servants

In order to measure the third dimension of bureaucracy, *the quality of public servants*, this study used two different sources of expert survey data. *Bureaucratic quality*, from the International Country Risk Guide (ICRG) dataset, measures the institutional strength and quality of the bureaucracy (Howell, 2011). V-dem's dataset of Rigorous and Impartial Public Administration was used to measure the level of arbitrariness of public servants (Pemstein et al., 2019; Coppedge et al., 2019). The formal variable scores bureaucratic quality such that high scores are given to countries in which the bureaucracy has the strength and expertise to govern without drastic changes in policy or interruptions in government services. A strong bureaucracy receives low points if a change in government tends to be traumatic in terms of policy formulation and day-to-day administrative functions. The score is rescaled from 0 to 1.

The latter variable is the score of the following question: *are public officials rigorous and impartial in the performance of their duties?* It is necessary to prevent arbitrary exercise of bureaucratic power and ensure accountability, predictability, and fairness in decision-making (Goodsell, 1985; Beneveniste, 1983, 1987; Kaufman, 1977; Thomson, 1975). A score of 0 was given to the following responses: *the law is not respected by public officials, arbitrary or biased administration of the law is rampant*, and 4 is given to the response that *public servants' arbitrary or biased administration of the law is rare*. The score is rescaled from 0 to 1.

### 3.6 Control Variables

Since the datasets are urban-level in a country-level context, factors of both levels should be controlled in the analysis. All urban-level data for independent variables are from the WB's Dealing with Construction Permit Index. The independent variable of public servant quality and the dependent variable are perception data from the country level. Based on the previous cross-country urban attractiveness studies, a number of control factors have been identified.

First, the following local-level controls were included; *the degree of local autonomy, urban population, and latitude*. The degree of local autonomy (Local Gov. Index) was measured by the question: *are there elected local governments, and — if so — to what extent can they operate without interference from unelected bodies at the local level?* (0= no elected local governments, 1= elected local governments subordinate to unelected officials, 2= local governments are elected and able to operate without restrictions). Urban population variable was calculated with log. Absolute latitude captures both economic factors and amenity factors; this study utilized latitude through the lens of basic geographic factors, such as weather and climate, both frequently used proxy variables to measure amenities (Rehdanz & Maddison, 2005).

Second, the institutional differences across countries were controlled in the analysis, including: *legal origin* (1=English Common Law, 2=French Commercial Code, 3=Socialist/Communist Laws, 4=German Commercial Code, 5=Others) and *colonial origin* (French dummy and British dummy). Colonial experience provides valuable evidence in many different ways. In many developing countries, colonial administrations influenced not only legal reform, policies but

also urban culture, architectural style and city forms (King, 2015).

Third, basic economic factors were controlled through the log of *GDP per capita*. Although it is ideal to include more location-specific urban-level economic controls, data availability was limited, especially among developing countries. Lastly, *government size*, or government consumption as a percentage of GDP, was also controlled. Table 9 summarizes all variables used in this study and their sources.

**Table 9.** Concept, Measurement, and Data Source

Concept	Measurement	Source	Level of Obs.
<b><i>Dependent Variable</i></b>			
Urban Attractiveness	Quality of Public Service Infrastructure	Fragile State Index	Aggregated country -level Perception
<b><i>Independent Variables</i></b>			
Rules of Bureaucracy	<b><i>Administrative Procedure Quality</i></b>		
	Permit Procedure		
	Permit Time		
	<b><i>Regulatory Quality</i></b>		
	Regulatory Quality (Ex-ante)	Dealing with Construction Permit Index	City Level Expert Survey
	Regulatory Quality (Ex-interim)		
	Regulatory Quality (Ex-post)		
	<b><i>Quality of Public Officials</i></b>		
	Competence of Bureaucracy	ICRG	Aggregated country -level Perception
	Discretion	V-Dem	Aggregated country -level Perception
<b><i>Control Variables</i></b>			
Local Gov. Index	GSoD Indices, V-Dem & Coppedge et al. (2019)	Local	
Latitude	World Cities Database	City	
Log (Urban pop)	UN & WDI	Urban	
Colonial Exp_British	La Porta et al. (1999)	City	
Colonial Exp_French	& ICOW	City	
Legal of Origin	CIA Factbook	Country	
Log (GDP per Capita)	WB &OECD	Country	
Government Size (% of GDP)	WB &OECD	Country	

### **3.7 Methodology and Model**

#### ***3.7.1 Model Specification***

The purpose of this study is to test which bureaucratic factors affect the standard attractiveness of urban areas through the quality provision of public service infrastructure. Multiple regressions provide the most simplistic and clear methodology to test this hypothesis. Pooled OLS, fixed effects, and random effects models are commonly used to understand social phenomenon in public administration literature when using a longitudinal dataset. In order to choose among these three different panel models, the author first needed to test for the presence of unobserved/individual specific effects. Fixed effects were tested with a Fischer (F) test, while random effects with explored with a Breusch and Pagan's Lagrange Multiplier (LM) test (Park, 2011). The former F-test settled whether fixed effects or simple pooled OLS better fits our panel data, whereas the LM test contrasts the random effects with pooled OLS.

The statistical p-values from both the F-test and the LM test accepted the null hypothesis. In addition, this study used pooled OLS and random effects as the main models for analysis for the following reasons. Since the dataset includes only three years of short T panel data, the variations across time are very low. Moreover, the variables used in the model have not changed over such a short period. Compared to the traditional Ordinary Least Squares estimations, which assumes all coefficients are constant across time and individuals, pooled regression assumes that the intercept and slope coefficients are constant across time and space, and the error term captures differences over time and individuals (Gujarati, 2003, 640).



The equation for the fixed effects model is;

$$Y_{it} = \beta_1 X_{it} + \alpha_i + u_{it}$$

The equation for the random effects model is;

$$Y_{it} = \beta X_{it} + \alpha + u_{it} + \varepsilon_{it}$$

Where

$u_{it}$  = Between-entity error

$\varepsilon_{it}$  = Within-entity error

In other words, while the fixed effect model assumes that those time-invariant characteristics are unique to the individual and should not be correlated with other individual characteristics and designed to study the causes of changes within a person, random effects assume that the entity's error term is not correlated with the predictors (Torres-Reyna, 2007). "...the crucial distinction between fixed and random effects is whether the unobserved individual effect embodies elements that are correlated with the regressors in the model, not whether these effects are stochastic or not" (Green, 2008: 183).

In sum, this study's interest is not to reveal how bureaucratic quality changes affect changes in urban *quality*, but rather to explore the link between bureaucratic determinants and urban *attractiveness*. The variations of these attributes for three years are very minimal or slow changing. Therefore, pooled OLS and random effects were reported, along with year dummies in all models, to control for aggregate time effects. For the validity purpose, the one-way fixed effects model is also reported in the appendix.

### **3.7.2 Analysis Plan**

The aim of this study is to understand whether the elements of bureaucracy determine urban attractiveness in a cross-country setting. As mentioned previously, this chapter aims not to test the theory, but rather to 1) unravel the relationship between bureaucratic factors and urban attractiveness, based on the maintenance condition of public service infrastructure in the context of LMICs and 2) discuss implications by comparing high-income and middle- to low-income countries. Recall that this study mainly tests the following two hypotheses.

**Hypothesis 1:** A (Weberian) bureaucracy is positively associated with the attractive maintained quality of the physical urban condition for residents in developing countries.

**Hypothesis 2:** When compared with high-income countries, bureaucratic determinants are more likely to influence the outcome of the physical urban condition in developing countries.

Hypothesis 1 was assessed using a pooled ordinary least squares (OLS) regression analysis and random effect analysis, using only the samples of developing countries (a total of 116 low- and mid-income countries). Two alternative models were posited for the relationship between bureaucratic determinants and perceived urban attractiveness in terms of maintained physical urban quality.

## Model 1: Linearity assumption

Model 1 suggests a linear relationship between bureaucratic factors and maintained physical urban quality. In other words, in line with classical red tape, regulation, and NPM theories, in order for hypotheses H1 to be accepted, fewer administrative procedures, less administrative time, less bureaucratic intervention, and better public service quality should have a positive effect on urban attractiveness in terms of maintained urban quality. This model portrays the null hypotheses of this study.

$$\begin{aligned} \text{Urban Attractiveness}_{i,t} = & \beta_1 + \beta_2 (\text{Administrative Procedural Quality})_{i,t} \\ & + \beta_3 (\text{Regulatory Quality})_{i,t} \\ & + \beta_4 (\text{Quality of Public Servants})_{i,t} + \beta_5 (\text{LGI})_{i,t} \\ & + \beta_6 (\text{Latitude})_{i,t} + \beta_7 (\text{Colonial Ex.})_{i,t} \\ & + \beta_8 (\text{Legal Origin})_{i,t} \\ & + \beta_9 (\text{GDP})_{i,t} + \beta_{10} (\text{UrbanPop}) + \beta_{11} (\text{Gov.Size}) \\ & + \beta_{12} (\text{DYear dummy}) + \varepsilon_{i,t} \end{aligned}$$

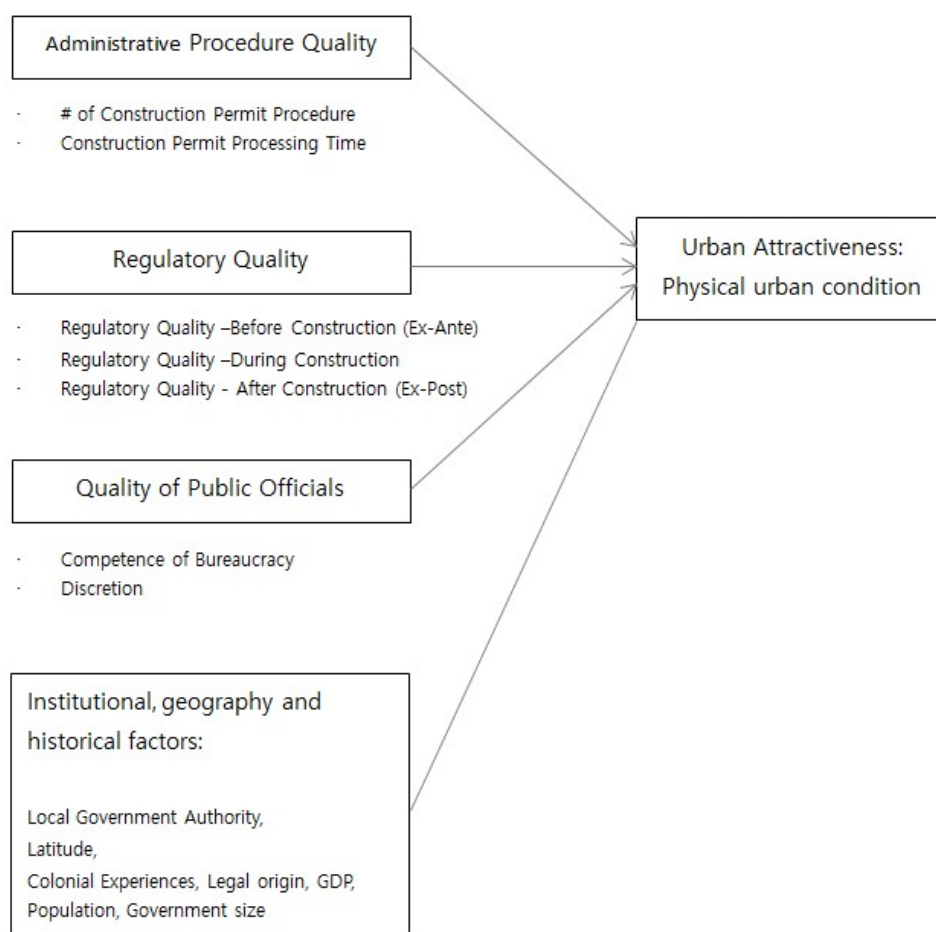
## Model 2: Nonlinearity assumption

Model 2 offers an alternative to Model 1, suggesting a linear relationship between bureaucratic factors and the maintained physical urban quality except for the administrative procedure factor. Model 2 challenges the possibility of considering bureaucratic context and bureaucratic feasibility (Cohen et al., 1985). In the bureaucratic context of developing countries, in which decision-making processes and bureaucratic structures are still developing, both fast and slow administrative procedures may have positive effects on maintained quality. Furthermore, while a slow administrative procedure is an ineffective outcome in the eyes of citizens-as-clients, it can be effective policy for preserving the built environment. Such positive analysis of administrative procedure is not well-understood. This model further suggests nonlinear relationships between administrative procedure simplification (e.g., reducing the number of procedures and processing time) and this sense of urban attractiveness.

$$\begin{aligned} \text{Urban Attractiveness}_{i,t} &= \beta_1 + \beta_2 (\text{Administrative Procedural Quality})^2_{i,t} \\ &+ \beta_3 (\text{Regulatory Quality})_{i,t} \\ &+ \beta_4 (\text{Quality of Public Servants})_{i,t} + \beta_5 (\text{LGI})_{i,t} \\ &+ \beta_6 (\text{Latitude})_{i,t} + \beta_7 (\text{Colonial Ex.})_{i,t} \\ &+ \beta_8 (\text{Legal Origin})_{i,t} \\ &+ \beta_9 (\text{GDP})_{i,t} + \beta_{10} (\text{UrbanPop}) + \beta_{11} (\text{Gov.Size}) \\ &+ \beta_{12} (\text{DYear dummy}) + \varepsilon_{i,t} \end{aligned}$$

Hypothesis 2 was tested similarly to Hypothesis 1, but used samples from high-income countries (52 countries, obs. 156). This allowed comparison of the significant differences of bureaucratic determinants of urban attractiveness between developing (low- and mid-income, 116) and high-income countries to test Hypothesis 2.

**Figure 4.** Basic Framework of Empirical Analysis



This chapter describes the relevant characteristics of the dataset used in this study. It also details the measurements used for dependent, independent, and control variables and explained the unique and useful proxy of the construction permit, both for this study and in the greater public administration literature. Furthermore, the need for data imputation in a cross-country study is explained. Finally, the chapter provided a blueprint for the methodology utilized to test the empirical hypotheses of this study. The next section describes the formal analysis of the data and statistical tests used to assess the validity of result.

## **Chapter 4. Analysis**

### **1. Summary Statistics**

Table 10-12 shows summary statistics of all variables in the analysis (N=168 countries). Table 13 shows the correlation matrix of variables, indicating no high correlation among independent and control variables. Imputed values are not included in this summary statistics. Separate summary statistics by two income groups; high income countries and low- and middle- income countries are also reported (Table 12). The table shows that overall mean value



**Table 10. Descriptive Statistics: Summary (Full Sample)**

<i>Raw Data: Dependent and Independent Variables (2016-2018)</i>						
Variable		Mean	Std. Dev.	Min	Max	Obs.
Quality of Public Service Infra	overall	5.6667	2.646	1	10	N = 504
	between		2.645	1.015	10	n = 168
	within		0.180	5.257	6.035	T = 3
Permit Procedure	overall	15.532	4.656	7	44	N = 504
	between		4.630	7	42.333	n = 168
	within		0.572	12.198	21.532	T = 3
Permit Time	overall	166.421	86.097	27.5	652	N = 504
	between		84.397	27.5	652	n = 168
	within		17.837	26.421	314.421	T = 3
Regulatory Quality (Ex-ante)	overall	0.431	0.176	0	1	N = 504
	between		0.173	0	0.667	n = 168
	within		0.032	0.097	0.764	T = 3
Regulatory Quality (During)	overall	0.546	0.284	0	1	N = 504
	between		0.281	0	1	n = 168
	within		0.045	0.102	0.769	T = 3
Regulatory Quality (Ex-post)	overall	0.870	0.241	0	1	N = 504
	between		0.241	0	1	n = 168
	within		0.021	0.648	1.093	T = 3
Competence of Bureaucracy*	overall	0.550	0.268	0	1	N = 372
	between		0.268	0	1	n = 124
	within		0.015	0.467	0.717	T = 3
Discretion*	overall	0.550	0.285	0	1	N = 432
	between		0.280	0	1	n = 144
	within		0.057	0.164	0.796	T = 3

\* Variables will be imputed for empirical analysis

**Table 11.** Descriptive Statistics: Summary (Full Sample)

<i>Raw Data: Control Variables</i>						
Variable		Mean	Std. Dev.	Min	Max	Obs.
Local Gov. Index*	overall	0.679	0.344	0.007	0.999	N = 412
	between		0.341	0.007	0.996	n = 139
	within		0.055	0.268	0.965	T-bar = 2.96
Latitude	overall	19.295	24.786	-36.848	64.150	N = 504
	between		24.836	-36.848	64.150	n = 168
	within		0.000	19.295	19.295	T = 3
Colonial Exp_ British	overall	0.280	0.449	0	1	N = 504
	between		0.450	0	1	n = 168
	within		0.000	0.280	0.280	T = 3
Colonial Exp_ French	overall	0.149	0.356	0	1	N = 504
	between		0.357	0	1	n = 168
	within		0.000	0.149	0.149	T = 3
Legal of Origin	overall	2.077	1.013	1	5	N = 504
	between		1.015	1	5	n = 168
	within		0.000	2.077	2.077	T = 3
Log (GDP per Capita)*	overall	8.645	1.434	5.605	11.667	N = 497
	between		1.434	5.643	11.602	n = 166
	within		0.076	7.970	9.097	T bar = 2.99
Log (Urban Pop)*	overall	3.318	0.578	1.128	4.605	N = 420
	between		0.579	1.130	4.605	n = 140
	within		0.009	3.284	3.351	T = 3
Gov. Size (% of GDP)*	overall	16.498	6.173	3.591	55.703	N = 452
	between		6.078	4.043	55.020	n = 155
	within		0.781	12.275	21.897	T-bar = 2.92

\* Variables will be imputed for empirical analysis

**Table 12.** Statistics: Summary (Income Group)

Variable	Income		Mean	Std. Dv.	Min	Max	Obs.
Quality of Public Service Infra	Low-Mid	overall	4.308	1.910	1	8	N = 348
		between		1.907	1.015	7.802	n = 116
		within		0.182	4.042	4.677	T = 3
	High	overall	8.697	1.082	5.7	10	N = 156
		between		1.074	6.110	10	n = 52
		within		0.177	8.286	9.063	T = 3
Permit Procedure	L-MD	overall	16.336	4.740	7	44	N = 348
		between		4.716	7.667	42.333	n = 116
		within		0.601	13.003	22.336	T = 3
	High	overall	13.737	3.917	7	23	N = 156
		between		3.910	7	22	n = 52
		within		0.504	11.071	16.404	T = 3
Permit Time	L-MD	overall	168.401	85.440	53.500	652	N = 348
		between		83.109	54.333	652	n = 116
		within		20.800	28.401	316.401	T = 3
	High	overall	162.003	87.659	27.5	617	N = 156
		between		87.863	27.5	543.667	n = 52
		within		7.997	125.337	235.337	T = 3
Regulatory Quality (Ex-ante)	L-MD	overall	0.440	0.167	0	1	N = 348
		between		0.165	0	0.667	n = 116
		within		0.031	0.106	0.773	T = 3
	High	overall	0.410	0.192	0	0.5	N = 156
		between		0.191	0	0.5	n = 52
		within		0.033	0.077	0.577	T = 3
Regulatory Quality (During)	L-MD	overall	0.482	0.289	0	1	N = 348
		between		0.284	0	1	n = 116
		within		0.053	0.037	0.704	T = 3
	High	overall	0.690	0.215	0	1	N = 156
		between		0.215	0	1	n = 52
		within		0.022	0.468	0.801	T = 3

Regulatory Quality (Ex-post)	L-MD	overall	0.823	0.272	0	1	N = 348
		between		0.272	0	1	n = 116
		within		0.021	0.601	0.934	T = 3
	High	overall	0.976	0.086	0.667	1	N = 156
		between		0.083	0.667	1	n = 52
		within		0.022	0.865	1.199	T = 3
Competence of Bureaucracy	L-MD	overall	0.408	0.186	0	0.75	N = 240
		between		0.186	0	0.75	n = 80
		within		0.018	0.324	0.574	T = 3
	High	overall	0.809	0.188	0.5	1	N = 132
		between		0.190	0.5	1	n = 44
		within		0.002	0.789	0.820	T = 3
Discretion	L-MD	overall	0.437	0.249	0	0.947	N = 300
		between		0.241	0	0.912	n = 100
		within		0.067	0.051	0.682	T = 3
	High	overall	0.808	0.173	0.105	1	N = 132
		between		0.173	0.105	1	n = 44
		within		0.024	0.720	0.878	T = 3
Local Gov. Index	L-MD	overall	0.599	0.343	0.008	0.997	N = 286
		between		0.338	0.016	0.990	n = 97
		within		0.065	0.188	0.885	T-bar = 2.94845
	High	overall	0.860	0.269	0.007	0.999	N = 126
		between		0.271	0.007	0.996	n = 42
		within		0.015	0.796	0.910	T = 3
Latitude	L-MD	overall	13.062	21.749	-34.603	55.752	N = 348
		between		21.812	-34.603	55.752	n = 116
		within		0.000	13.062	13.062	T = 3
	High	overall	33.200	25.552	-36.848	64.15	N = 156
		between		25.719	-36.848	64.15	n = 52
		within		0.000	33.200	33.200	T = 3
Colonial Exp_ _British	L-MD	overall	0.293	0.456	0	1	N = 348
		between		0.457	0	1	n = 116
		within		0.000	0.293	0.293	T = 3
	High	overall	0.250	0.434	0	1	N = 156

			between	0.437	0	1	n = 52
			within	0.000	0.25	0.25	T = 3
Colonial Exp_ French	L-MD	overall	0.216	0.412	0	1	N = 348
		between		0.413	0	1	n = 116
		within		0.000	0.216	0.216	T = 3
	High	overall	0.000	0.000	0	0	N = 156
		between		0.000	0	0	n = 52
		within		0.000	0	0	T = 3
Legal of Origin	L-MD	overall	1.966	0.841	1	5	N = 348
		between		0.844	1	5	n = 116
		within		0.000	1.966	1.966	T = 3
	High	overall	2.327	1.286	1	5	N = 156
		between		1.294	1	5	n = 52
		within		0.000	2.327	2.327	T = 3
Log (GDP per Capita)	L-MD	overall	7.871	0.970	5.605	9.588	N = 341
		between		0.969	5.643	9.470	n = 114
		within		0.082	7.196	8.323	T-bar = 2.99123
	High	overall	10.338	0.560	9.422	11.667	N = 156
		between		0.561	9.512	11.602	n = 52
		within		0.060	10.218	10.464	T = 3
Log (Urban pop.)	L-MD	overall	3.339	0.546	1.128	4.321	N = 294
		between		0.548	1.130	4.320	n = 98
		within		0.009	3.311	3.367	T = 3
	High	overall	3.269	0.645	1.712	4.605	N = 126
		between		0.650	1.712	4.605	n = 42
		within		0.009	3.235	3.301	T = 3
Gov.size (% of GDP)	L-MD	overall	15.140	6.431	3.591	55.703	N = 303
		between		6.304	4.043	55.020	n = 105
		within		0.775	10.918	20.254	T-bar = 2.88571
	High	overall	19.258	4.503	10.340	31.499	N = 149
		between		4.499	10.433	30.066	n = 50
		within		0.795	16.238	24.657	T-bar = 2.98

Table 13. Correlation matrix

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Public Service Infrastructure	1													
2. Permit Procedure	-0.194***	1												
3. Permit Time	-0.098**	0.145***	1											
4. Regulatory Quality Before	0.021	0.029	-0.044	1										
5. Regulatory Quality During	0.466***	-0.02	-0.038	0.210***	1									
6. Regulatory Quality After	0.415***	0.046	0.013	0.115***	0.515***	1								
7. Competence of Bureaucracy	0.753***	-0.272***	-0.069	0.069	0.460***	0.364***	1							
8. Corruption	0.589***	-0.217***	-0.156***	0.06	0.315***	0.294***	0.603***	1						
9. Local Government Index	0.318***	-0.164***	0.042	-0.033	0.096*	0.251***	0.397***	0.594***	1					
10. Latitude	0.531***	-0.027	-0.076*	0.065	0.342***	0.220***	0.319***	0.181***	-0.023	1				
11. Colonia Experience	-0.593***	0.049	0.052	-0.089**	-0.377***	-0.211***	-0.473***	-0.330***	-0.254***	-0.602***	1			
12. Legal of Origin	0.373***	-0.036	-0.038	0.024	0.216***	0.189***	0.198***	0.214***	0.115**	0.530***	-0.413***	1		
13. Log (GDP per Capita)	0.895***	-0.218***	-0.04	0.043	0.422***	0.352***	0.781***	0.576***	0.382***	0.411***	-0.520***	0.250***	1	
14. Log (Urban population)	-0.196***	-0.109**	-0.011	0.032	-0.172***	-0.116**	-0.208***	-0.067	-0.072	-0.242***	0.257***	-0.118**	-0.195***	1

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

## 2. Results

The analysis proceeded in the following steps. First, I tested Model 1 and Model 2 using samples of low- and mid-income country groups without imputation (obs.214) and with multiple imputation (obs.348). Model 1 was tested for *Hypothesis 1*, to see if the administrative procedure dimension of bureaucracy is significant with linear assumption. Model 2 was tested to determine if the administrative procedure dimension of bureaucracy is significant in a non-linear hypothesis, in relation to the standard attractiveness of urban areas in terms of public service quality infrastructure provision, under the same conditions as Model

Second, both models were tested with high-income country group samples (max. 52 countries, obs.156, imputed) for comparison purposes, to confirm Hypothesis 2. Pooled ordinary least squares regressions and random effect analyses were conducted to test the hypotheses outlined in the previous chapter. Both listwise and imputed datasets were utilized to empirically test Hypothesis 1. Only imputed datasets were used for Hypothesis 2.

### 4.2.1 Model 1: Linearity in the context of low- and mid-income countries

Table 14 shows the result of Model 1 with low- and mid- income countries (imputed, n=116 countries). Both the pooled ordinary least square (OLS) model and the random effect model show *ex-post regulatory quality* and *discretion* are associated with urban attractiveness in terms of the maintained condition of public service infrastructure, with a significant coefficient, at the 99% level of confidences. *Quality of bureaucracy* is significant at the 99% level of confidence in pooled ordinary least square (OLS), but insignificant in random effect model. *Procedure* was insignificant in the pooled ordinary least square (OLS) model, but

significant in the random effect model at  $p < 0.1$ . Similarly, time showed mixed results: it is insignificant in the pooled ordinary least square (OLS) model, but shows positive significance at the 90% level of confidences in the random effect model. In other words, longer administrative processing time was found to have a positive correlation with perceived maintained urban quality in the context of developing countries. This is notable, considering that most previous literature assumes that reducing the number and time of administrative procedures would increase the efficiency and, eventually, the outcome of bureaucracy (reference needed). Overall, the results of Model 1 fully support H1c, but only partially support H1a and H1b.



**Table 14.** Model 1 Pooled OLS and Random effect

Low- to Mid- Income Countries (2016-2018)				
VARIABLES	Pooled OLS		Random Effect	
	<i>Listwise</i>	<i>Imputed</i>	<i>Listwise</i>	<i>Imputed</i>
<b>Permit Procedure</b>	-0.00344 (0.0133)	-0.0109 (0.0124)	-0.0266* (0.0156)	-0.0275** (0.0138)
<b>Permit Time</b>	-0.000259 (0.000778)	-0.000474 (0.000702)	0.00135*** (0.000409)	0.00112** (0.000561)
<b>Regulatory Quality (Ex-Ante)</b>	-1.512*** (0.539)	-0.449 (0.391)	0.381 (0.285)	0.242 (0.284)
<b>Regulatory Quality (Interim)</b>	-0.104 (0.234)	-0.0480 (0.215)	0.0445 (0.154)	0.187 (0.138)
<b>Regulatory Quality (Ex-Post)</b>	1.127*** (0.400)	0.944*** (0.292)	1.199** (0.476)	0.986** (0.388)
<b>Competence of Bureaucracy</b>	2.162*** (0.383)	1.351*** (0.472)	1.785*** (0.502)	0.224 (0.170)
<b>Discretion</b>	1.257*** (0.293)	1.204*** (0.292)	0.304* (0.172)	0.258* (0.144)
Local Government Index	-0.608** (0.246)	-0.409* (0.225)	-0.272 (0.248)	-0.0843 (0.111)
Latitude	0.0242*** (0.00382)	0.0270*** (0.00350)	0.0286*** (0.00771)	0.0320*** (0.00743)
Colonial Exp. British	-0.256 (0.322)	-0.136 (0.196)	-0.493 (0.548)	-0.103 (0.429)
Colonial Exp. French	-0.704*** (0.165)	-0.671*** (0.143)	-0.925*** (0.302)	-1.149*** (0.295)
Legal of Origin	0.559** (0.229)	0.177 (0.110)	0.428 (0.415)	0.119 (0.237)
Log (GDP per Capita)	0.879*** (0.0824)	0.997*** (0.0763)	0.494*** (0.154)	0.492*** (0.174)
Log (Urban Population)	0.209 (0.142)	0.0425 (0.124)	0.0293 (0.233)	-0.00947 (0.0726)
Government Size (% of GDP)	0.00697 (0.0180)	0.000799 (0.0125)	0.0336** (0.0137)	0.00498 (0.00868)
Constant	-5.852*** (0.901)	-5.381*** (0.769)	-2.820* (1.453)	-0.963 (1.462)
Observations	214	348	214	348
# of Countries	75	116	75	116
Time Dummy	Y	Y	Y	Y
R-squared	0.78	0.73	0.75	0.62*
F-test			0.04	0.00
LM test			0.00	0.00
VIF	1.65			

F-test, Breusch-Pagan Lagrange multiplier (LM) test

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

#### *4.2.2 Model 2: Nonlinearity in the context of low- and mid-income countries*

Interestingly, the dimension of administrative procedure shows a mixed result across all of Model 1. Table 15 reports the results of the non-linear assumptions of permit procedure and permit time. Overall, results from Model 2 shows similar findings to those of Model 1. Procedure was found to be insignificant across all models. Time shows significance at the 95% level of confidences, but is negatively correlated with the dependent variable. Additionally, a squared term of time shows significance, indicating that time is also nonlinearly associated with urban attractiveness in terms of the maintained condition of public service infrastructure. I will discuss about this further in Chapter 5. Competence of bureaucracy (1.368\*\*\*, Pooled OLS, imputed) and discretion (1.224\*\*\*, Pooled OLS, imputed) remain positively significant at the 95% level of confidence in Model 2.

**Table 15.** Model 2 Pooled OLS and Random effect

Low- to Mid- Income Countries (2016-2018)				
VARIABLES	Pooled OLS		Random Effect	
	<i>Listwise</i>	<i>Imputed</i>	<i>Listwise</i>	<i>Imputed</i>
<b>Permit Procedure</b>	0.0718 (0.0544)	0.0373 (0.0379)	0.00216 (0.0450)	0.00219 (0.0329)
<b>Permit Procedure*2</b>	-0.00170* (0.000990)	-0.00114 (0.000751)	-0.000506 (0.000915)	-0.000634 (0.000525)
<b>Permit Time</b>	-0.0101** (0.00414)	-0.00678*** (0.00187)	-0.00159 (0.00235)	-0.000416 (0.00224)
<b>Permit Time*2</b>	2.27e-05** (9.65e-06)	1.20e-05*** (2.96e-06)	5.68e-06 (4.47e-06)	2.91e-06 (4.59e-06)
<b>Regulatory Quality (Ex-Ante)</b>	-1.296** (0.530)	-0.412 (0.371)	0.247 (0.406)	0.194 (0.298)
<b>Regulatory Quality (Interim)</b>	-0.0856 (0.230)	-0.108 (0.211)	0.103 (0.260)	0.190 (0.135)
<b>Regulatory Quality (Ex-Post)</b>	1.116*** (0.414)	1.035*** (0.284)	1.108** (0.496)	0.978** (0.389)
<b>Competence of Bureaucracy</b>	2.199*** (0.395)	1.368*** (0.456)	1.801*** (0.498)	0.227 (0.172)
<b>Discretion</b>	1.165*** (0.287)	1.224*** (0.284)	0.297* (0.172)	0.260* (0.144)
Local Government Index	-0.628** (0.250)	-0.451** (0.219)	-0.196 (0.222)	-0.0786 (0.108)
Latitude	0.0238*** (0.00371)	0.0271*** (0.00344)	0.0282*** (0.00679)	0.0319*** (0.00734)
Colonial Exp. British	-0.175 (0.308)	-0.170 (0.191)	-0.454 (0.378)	-0.104 (0.426)
Colonial Exp. French	-0.674*** (0.161)	-0.741*** (0.139)	-0.898*** (0.323)	-1.153*** (0.296)
Legal of Origin	0.583** (0.233)	0.132 (0.110)	0.440 (0.275)	0.111 (0.238)
Log (GDP per Capita)	0.836*** (0.0832)	0.984*** (0.0745)	0.496*** (0.111)	0.503*** (0.178)
Log (Urban Population)	0.155 (0.141)	-0.00532 (0.123)	0.0242 (0.226)	-0.00940 (0.0719)
Government Size (% of GDP)	0.000976 (0.0184)	0.00516 (0.0122)	0.0351** (0.0141)	0.00505 (0.00881)
Constant	-5.242*** (0.930)	-4.953*** (0.771)	-2.841** (1.417)	-1.163 (1.442)
Observations	214	348	214	348
# of Countries	75	116	75	116
Time Dummy	Y	Y	Y	Y
R-squared	0.81	0.75	0.76	0.63
F-test			0.003	0.0001
LM test			0.00	0.00
VIF	5.84			

Robust standard errors in parentheses (\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1)

#### *4.2.3 Models 1 and 2: comparison between different income groups*

Table 16 and Table 17 shows the result in a comparison of two different income groups: high-income countries and mid- to low-income countries. It is worth noting that the significance of bureaucratic determinants varies by income group. As Table 16 shows (full sample, n=168 countries), regulatory quality, especially ex-ante and ex-interim regulatory quality, are associated with this sense of urban attractiveness, with a significant coefficient in the context of high-income countries. In particular, ex-ante regulatory quality is significant and negatively signed, while interim regulatory quality is significant and positively signed. Interestingly, neither of the administrative procedural dimensions, procedure or time, were significant, or were only significant in low- and mid-income countries with random effect analysis. Surprisingly, both competence of public servants (1.351\*\*\*) and discretion (1.204\*\*\*) remain highly robust for low- and mid-income countries.

Interestingly, both Table 16 and Table 17 show that high-income countries and mid- to low-income countries suggest opposing results. For mid-to low-income countries, the coefficients of the regulatory quality dimension and the quality of public servants are significant, at the 99% level of confidences. While regulatory quality, competence of bureaucracy, and discretion were significant determinants for mid- to low-income countries, the regulatory quality dimension is the only determinant for high-income countries. Even further, for high income countries, ex-ante regulatory quality is negatively significant, while interim regulatory quality is positively significant. Number of permit procedures and processing time are insignificant in high-income countries, but suggest mixed results in the context of low- and mid-income countries. Empirical results suggest

that longer permit time is positively correlated and also nonlinearly associated with the physical quality of the urban condition. I will examine this further in the following discussion chapter.

**Table 16.** Model 1: Income group comparison

VARIABLES	Pooled OLS		Random Effect	
	<i>High Income</i>	<i>Mid-Low Income</i>	<i>High Income</i>	<i>Mid-Low Income</i>
<b>Permit Procedure</b>	-0.0104 (0.0167)	-0.0109 (0.0124)	-0.0199 (0.0165)	-0.0275** (0.0138)
<b>Permit Time</b>	0.000425 (0.000608)	-0.000474 (0.000702)	0.000704 (0.000970)	0.00112** (0.000561)
<b>Regulatory Quality (Ex-Ante)</b>	-0.685** (0.269)	-0.449 (0.391)	-0.171 (0.239)	0.242 (0.284)
<b>Regulatory Quality (Interim)</b>	1.237*** (0.285)	-0.0480 (0.215)	0.907*** (0.350)	0.187 (0.138)
<b>Regulatory Quality (Ex-Post)</b>	-0.423 (0.630)	0.944*** (0.292)	-0.0849 (0.253)	0.986** (0.388)
<b>Competence of Bureaucracy</b>	0.336 (0.648)	1.351*** (0.472)	0.177 (0.227)	0.224 (0.170)
<b>Discretion</b>	0.820 (0.929)	1.204*** (0.292)	-0.0631 (0.246)	0.258* (0.144)
Local Government Index	-0.512 (0.486)	-0.409* (0.225)	0.00322 (0.154)	-0.0843 (0.111)
Latitude	-0.00430* (0.00245)	0.0270*** (0.00350)	-0.00186 (0.00424)	0.0320*** (0.00743)
Colonial Exp. British	0.347 (0.258)	-0.136 (0.196)	0.203 (0.324)	-0.103 (0.429)
Colonial Exp. French	-	-0.671*** (0.143)	-	-1.149*** (0.295)
Legal of Origin	0.274*** (0.0684)	0.177 (0.110)	0.269** (0.108)	0.119 (0.237)
Log (GDP per Capita)	0.865*** (0.160)	0.997*** (0.0763)	0.928*** (0.197)	0.492*** (0.174)
Log (Urban Population)	-0.361** (0.157)	0.0425 (0.124)	-0.0651 (0.0752)	-0.00947 (0.0726)
Government Size (% of GDP)	0.00683 (0.0163)	0.000799 (0.0125)	0.0102 (0.0103)	0.00498 (0.00868)
Constant	-0.468 (1.792)	-5.381*** (0.769)	-2.004 (1.988)	-0.963 (1.462)
Observations	156	348	156	348
# of Countries	52	116	52	116
Time Dummy	Y	Y	Y	Y
R-squared	0.67	0.72	0.59	0.81

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

**Table 17. Model 2: Income group comparison**

VARIABLES	Pooled OLS		Random Effect	
	<i>High Income</i>	<i>Mid-Low Income</i>	<i>High Income</i>	<i>Middle Income</i>
<b>Permit Procedure</b>	-0.110 (0.111)	0.0373 (0.0379)	-0.143** (0.0633)	0.00219 (0.0329)
<b>Permit Procedure*2</b>	0.00337 (0.00345)	-0.00114 (0.000751)	0.00431** (0.00212)	-0.000634 (0.000525)
<b>Permit Time</b>	-1.34e-06 (0.00209)	-0.00678*** (0.00187)	0.00125 (0.00267)	-0.000416 (0.00224)
<b>Permit Time*2</b>	5.74e-07 (4.17e-06)	1.20e-05*** (2.96e-06)	-8.19e-07 (2.73e-06)	2.91e-06 (4.59e-06)
<b>Regulatory Quality (Ex-Ante)</b>	-0.641** (0.279)	-0.412 (0.371)	-0.275 (0.268)	0.194 (0.298)
<b>Regulatory Quality (Interim)</b>	1.133*** (0.303)	-0.108 (0.211)	1.014*** (0.321)	0.190 (0.135)
<b>Regulatory Quality (Ex-Post)</b>	-0.311 (0.714)	1.035*** (0.284)	-0.0393 (0.223)	0.978** (0.389)
<b>Competence of Bureaucracy</b>	0.281 (0.662)	1.368*** (0.456)	0.194 (0.222)	0.227 (0.172)
<b>Discretion</b>	0.783 (0.925)	1.224*** (0.284)	-0.0798 (0.265)	0.260* (0.144)
Local Government Index	-0.492 (0.480)	-0.451** (0.219)	0.00155 (0.162)	-0.0786 (0.108)
Latitude	-0.00428* (0.00244)	0.0271*** (0.00344)	-0.00212 (0.00417)	0.0319*** (0.00734)
Colonial Exp. British	0.308 (0.290)	-0.170 (0.191)	0.190 (0.325)	-0.104 (0.426)
Colonial Exp. French	- (0.139)	-0.741*** (0.139)	- (0.296)	-1.153*** (0.296)
Legal of Origin	0.263*** (0.0684)	0.132 (0.110)	0.263** (0.110)	0.111 (0.238)
Log (GDP per Capita)	0.875*** (0.165)	0.984*** (0.0745)	0.937*** (0.204)	0.503*** (0.178)
Log (Urban Population)	-0.377** (0.166)	-0.00532 (0.123)	-0.0624 (0.0750)	-0.00940 (0.0719)
Government Size (% of GDP)	0.00464 (0.0184)	0.00516 (0.0122)	0.00904 (0.0103)	0.00505 (0.00881)
Constant	0.296 (2.085)	-4.953*** (0.771)	-1.381 (2.300)	-1.163 (1.442)
Observations	156	348	156	348
# of Countries	52	116	52	116
Time Dummy	Y	Y	Y	Y
R-squared	0.67	0.72	0.60	0.81

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Chapter 5. Discussions

The previous chapter tested whether bureaucracy determines urban attractiveness, in terms of the existing physical urban condition, by using three years (2016-2018) of cross-country data. By doing so, this study explored the positive impact of bureaucratic processes on urban outcomes. The empirical results of this study were partly as expected, and partly contrary to the propositions of this dissertation.

First, this study proposed that fewer permit administrative procedures over a shorter period of time will exert a positive significant effect on urban attractiveness (H1a), a perceived urban outcome based on the general maintained condition of buildings, streets, and public service infrastructure. Two different models of linear and nonlinear assumptions delivered mixed results. The number of permit administrative procedures is insignificant or negatively correlated to urban attractiveness, while permit processing time is insignificant or positively associated. Unexpectedly, permit processing time also shows a nonlinear relationship to urban attractiveness. The nonlinear effect is not shown between the number of administrative procedures and urban attractiveness. Moreover, it is interesting to point out that the correlation coefficient between the number of procedures and the permit processing time is very low. These issues will be discussed further in the next section.

Second, this study expected that increased bureaucratic intervention through the law would exert a positive significant effect on urban attractiveness. However, the results suggest that only regulatory quality after construction (ex-post) serves as a key determinant for urban attractiveness in terms of existing



physical urban condition in the context of developing countries. In other words, bureaucrats' interventions after the fact, such as a final inspection to verify a building was built in accordance with approved plans and existing building regulations, may help to enhance the physical urban condition. However, regulatory quality procedures before and during the construction were insignificant. It is worth comparing regulatory quality factors between two income groups. Among high-income countries, regulatory quality before (ex-ante) and during construction are statistically significant factors for urban attractiveness. In fact, among these three bureaucratic factors, regulatory quality factor is the only significant determinant in the context of high-income countries.

Thirdly, this study sought to establish a link between public officials' quality and the physical urban condition. The results consistently suggest that the competence of bureaucracy and discretion are positively correlated with urban attractiveness in terms of existing physical urban condition. In other words, competent day-to-day management of administrative functions and less arbitrary decision-making positively affect urban attractiveness.

Through a number of different analyses, this study empirically confirmed the link between bureaucracy and urban attractiveness, as understood in terms of the existing physical urban condition. Recall that the main purpose of this cross-country study was to find *a baseline general relationship* between the quality of bureaucracy and the physical dimensions of urban attractiveness. This points to the main limitation of this work, which substitutes urban-level data with country-level data. Measurements of public officials' quality and perceived urban attractiveness utilized perception data aggregated at the country level. Since it used only three years' worth of constructed panel data, this research can discuss general

relationships, but cannot identify causal mechanisms, which would require more contextual data at the urban and regional level. Such analysis goes beyond the scope of this dissertation.

Other limitations inform the discussion and interpretation of these empirical results. Other confounding factors may have affected outcomes. Furthermore, different contextual elements may affect urban attractiveness, such as a long-term urban development master plan or the initiatives of a strong political leader. Considering these limitations, these results suggest that not only competitive markets, but also bureaucratic factors and competitive urban public officials, positively contribute to urban attractiveness in terms of the existing physical urban condition.

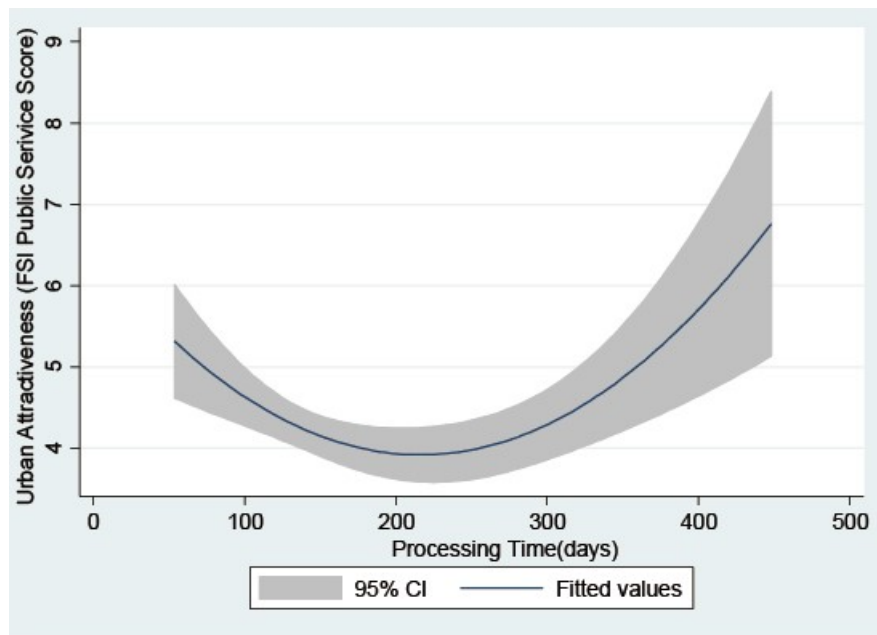
With this baseline result, the next section explains the validity of the findings through a more in-depth interpretation. Further, this discussion provides theoretical and practical implications for urban policymakers in developing countries, who seek to make their cities more attractive while faced with a relatively weak economic condition.

## **5.1. Administrative Rules and Urban Attractiveness**

### *5.1.1 Unexpected time effect on urban attractiveness*

This study hypothesized that administrative procedures would be positively related to urban attractiveness. The empirical test partially supports this: the number of permit procedures is insignificant or significant with negative signs, as expected, but the permit processing time is insignificant or significant with positive signs, which was unexpected. Moreover, as Figure 5 visualizes, the result shows nonlinear effects of permit time on urban attractiveness in the context of low- and middle- income countries.

**Figure 5.** Non-linear relationship between Permit Time and Urban Attractiveness



The administrative processing approach adopted in this study is grounded in the context of the construction permit process, which occurs through formal rules, such as “obtaining all plans and surveys required, obtaining and submitting all relevant project-specific documents, obtaining all necessary clearances, licenses, permits and certificates, submitting all required notifications for the start and end of construction and for inspections, and requesting and receiving all necessary inspections”. Administrative time acts as an informal practice, since 1) processing time largely depends on the processing actors (bureaucrats) and 2) “contextual conditions dominate the process” (Matland, 1995).

According to the Figure 2, a perceived urban attractiveness score higher than 5 can be achieved through a permit processing time of under 75 days, but can also be achieved with a time beyond 400 days. This nonlinear relationship appears only in the context of low- and middle-income countries. There was no such effect with samples of high-income countries. These mixed results suggest that administrative procedure reforms, such as simplifying procedures or reducing time spent, may not be effective strategies for increasing urban attractiveness in low- and middle-income countries.

New Public Management (NPM) is a relevant topic for discussing administrative procedures through the lens of public management. NPM scholars argue that “government should be run like a business” and address the procedure and time factors in relation to cost. In other words, at the managerial level, the framing assumes that less time spent indicates good performance. This market-type efficiency-oriented NPM reform has targeted civil servants handling policy implementation (Hood, 1995; Pollitt & Bouckaert, 2011, 9-11) at “cheaper cost, more efficient[ly], and more responsive[ly]” (Pollitt & Dan, 2011). NPM advocates

linked time reduction and cost reduction to achieve the goal of efficiency (Hood & Dixon, 2013). Aspects of NPM initiatives, such as deregulation of line management, performance management, competition, and the need to offer quality and choice to citizens, were introduced as a means to ensure the better provision of public services (Aucoin, 1990; Hood, 1991; Lindberg et al., 2015). Consequently, this led scholars to downplay the active role of government and pursue “small government” solutions through privatization and downsizing (Ingraham, 1996; Minogue, 1998; Polidano).

From the perspective of NPM, longer administrative procedure is synonymous with administrative delay, which is considered a predictor of redundant procedures, or ‘red tape’ (Pandey & Welch, 2005). This concept captures the amount of time required to complete core organizational tasks, such as purchasing items, hiring and firing personnel, contracting services, and changing policies (Bretschneider, 1990; DeHart-Davis & Bozeman, 2001). Organizational centralization, a lack of resources, and ineffective rules policed by bad management cause these time delays.

However, recent studies emphasized that delays may also be attributed to differences in norms and informal behavior, or to uncontrollable events (Bozeman & Feeney, 2011). In relation to this, Kaufmann et al. (2018) maintained that time is an essentially social construction and not entirely objective in government performance. How much time is required to, say, purchase a new computer can be viewed as an objective indicator (e.g., “the purchasing request began on May 1, the computer arrived on June 1, and the time required for purchase was one month”). But is that time required a *delay*? The answer to this question depends upon individual perceptions, experiences, and expectations, all of which are important

but not objective (Pandey & Kingsley, 2000). In other words, administrative procedures and processing time should be understood not only from the perspective of managerial efficiency, but also while considering the contextual setting.

### ***5.2.2 Administrative procedures in the cross-country setting***

Since this study examines the link between bureaucratic factors and urban attractiveness across multiple countries, comparing contexts between high-income and low- and middle-income countries, it is worthwhile to examine administrative procedure across countries (World Bank's Dealing with Construction Data, 2018). Figure 6, Table 18, and Table 19 are cross-country variations in the permit processing time, and Figure 7, Table 20, and Table 21 are variations in the number of permit procedures.

Figure 6 visualizes the core argument regarding administrative procedures, and helps identify potential misconceptions between developed and developing countries. First, the author found that the average total permit-processing time in the low- and mid-income group is not necessarily longer than that in the high-income group. The high-income group takes an average of about 160 days to obtain a construction permit, while the low-income group takes about 143 days. Upper middle-income countries take about 165 days and lower middle-income countries take 178 days (see Table 18).

Table 19, which classifies average permit-processing time by regional group, supports similar implications. Cities in high-income OECD countries feature a longer permit-processing time (151 days on average) than cities in the Middle East and North African countries (137 days) and sub-Saharan African

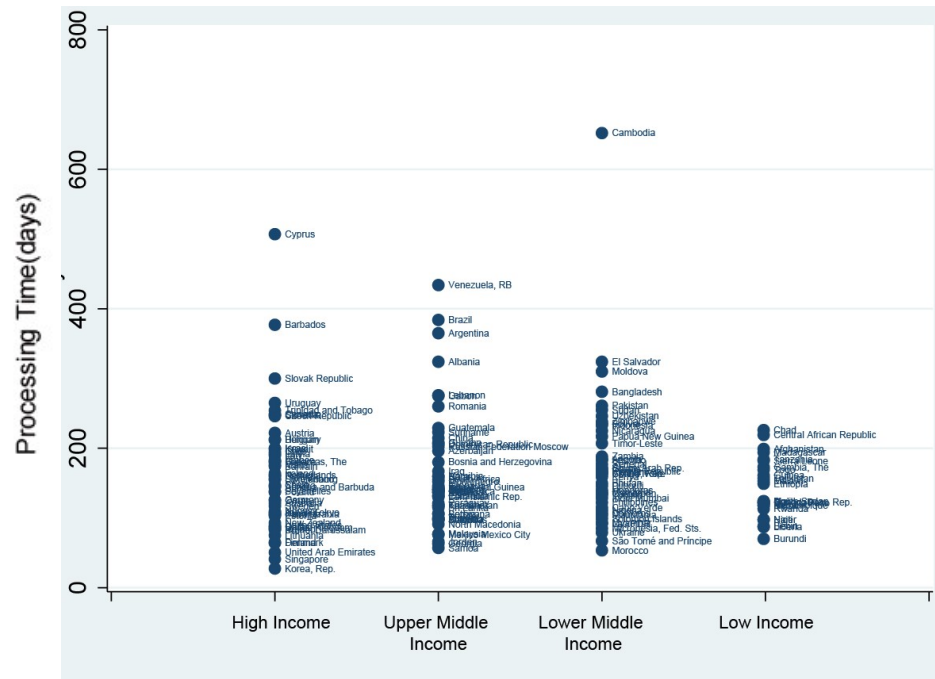
countries (44 countries, 150 days).

This observation shows that scholars need to use caution when applying the NPM efficiency hypothesis holding that “short time is more efficient” in relation to economic condition. This assumption may cause the prejudgment that the high-income group is more efficient than the low-income group. Poor interpretation based on NPM efficiency ideals may lead to incorrect conclusions, such as Georgia (Tbilisi, 63 days) is more efficient than New Zealand (Auckland, 93 days) or Oman (Muscat, 125 days) is more efficient than Switzerland (Zurich, 156 days). To summarize, objective processing time and economic conditions are not necessarily strongly associated.

One may object that the total number of required procedures may strongly influence processing time, particularly as excessive procedures cause delays. This assertion is also questionable. Figure 4 visualizes procedure variations across countries from four income groups: significant differences do not seem to exist among them. In 2018, high-income groups had just two fewer procedures than low- and mid-income groups on average (see Table 20). Though high-income OECD countries have the smallest number of required procedures (13), in general, no significant regional differences in number of procedures were found.



**Figure 6.** Comparative Permit Time Variations (2018)



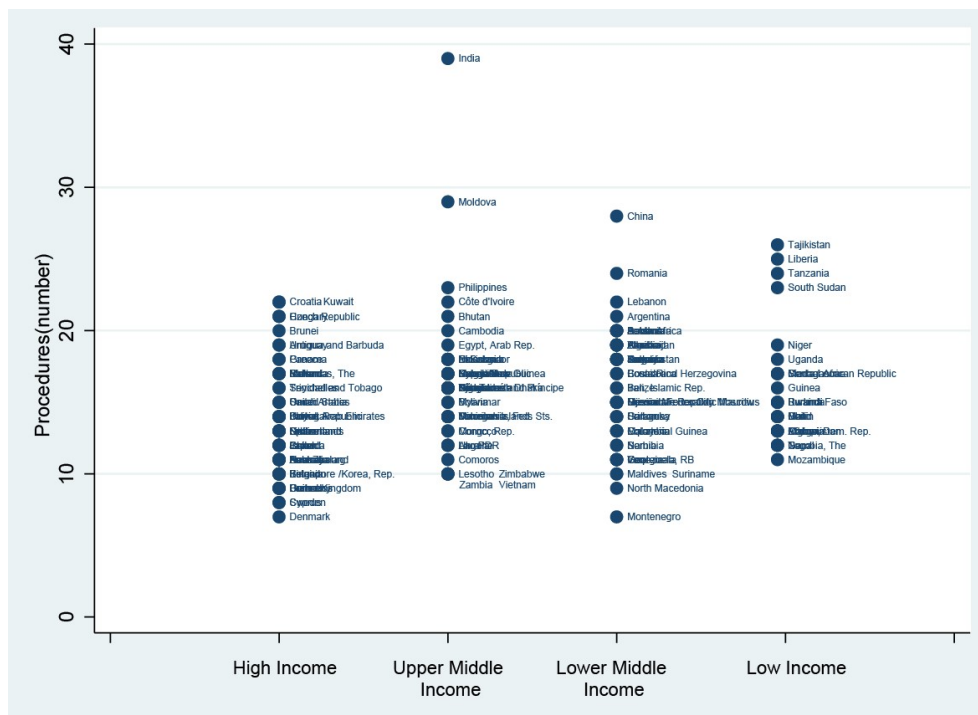
**Table 18.** Comparative Permit Time Variations (2018)

Income group	Permit Time (Days)	# of Countries
High-income	160.28846	52
Upper middle-income	165.33333	48
Lower middle-income	178.46512	43
Low-income	142.72	25
Total	163.76	168

**Table 19.** Comparative Permit Time Variations (2018)

Region	Permit Time (Days)	# of Countries
East Asia & Pacific	157.4722	18
Europe & Central Asia	179	21
High income: OECD	150.9849	33
Latin America & Caribbean	205.5179	28
Middle East & North Africa	137.3125	16
South Asia	174.0625	8
Sub-Saharan Africa	149.8409	44
Total	163.76	168

**Figure 7. Comparative Permit Procedure Variations**



**Table 20.** Comparative Permit Procedure Variations (2018)

Income group	Permit Procedure (#)	# of Countries
High-income	13.692308	52
Upper middle-income	16.145833	48
Lower middle-income	16.372093	43
Low-income	16.08	25
Total	15.434524	168

**Table 21.** Comparative Permit Procedure Variations (2018)

Region	Permit Procedure (#)	# of Countries
East Asia & Pacific	16.611111	18
Europe & Central Asia	17.047619	21
High income: OECD	12.69697	33
Latin America & Caribbean	15.75	28
Middle East & North Africa	16.0625	16
South Asia	17.875	8
Sub-Saharan Africa	15.363636	44
Total	15.434524	168

If income level is not a critical factor for administrative procedures, then what other potential factors affect administrative procedures, which positively influence the physically attractive condition of cities? ‘Outlier’ cities may provide a few insights. Though outlier cases are often eliminated from analyses, their unusual characteristics may provide more information than average situations (Cresswell, 2003). Among 116 cities in low- and middle- income countries, outlier cases of permit-processing time are Phnom Pehn (Cambodia, 652 days), Caracas (Venezuela, 434 days), and Casablanca (Morocco, 53.5 days). Outlier cases of number of permit procedures are Mumbai (India, 39 procedures), Chisinau (Moldova, 29 procedures), Beijing (China, 28 procedures) and Podgorica (Montenegro, 7 procedures)

For example, Fauveaud (2016)’s study provides insights on why Phnom Pehn takes an exceptionally longer time to obtain a building permit. First, information and details on land transactions and private investments are so scant (for example, contractors' names, the project's surface area, investment amounts, building permit numbers, and so on) that none of the transactions are systematically registered. Therefore, to register a property with the municipality, the owner must first request certificates from the community and the district, and informal fees usually have to be paid at all territorial levels.

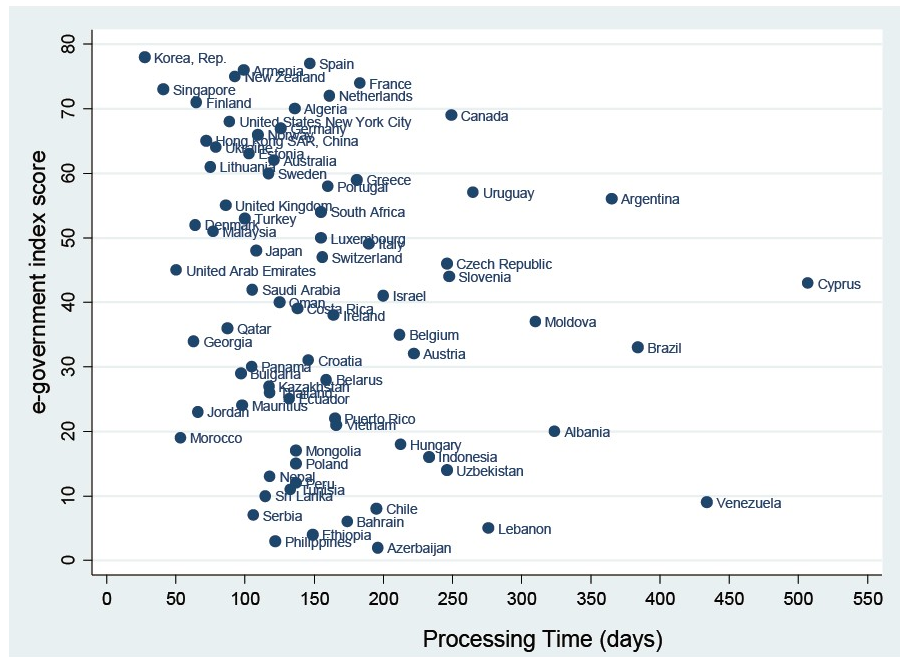
Second, the community head has both political and administrative power, with which they plan for roads and infrastructure projects, control land use, and are in charge of verifying construction work. They also exercise control over population trends: they register inhabitants who move, and, with the police, deliver certificates of residency. They register civil records (births, deaths, marriages) and ensure security with the help of the police. As such, despite Phnom Pehn’s low

number of procedures (20), informal procedures without official guidelines lengthen the administrative time involved.

Another outlier case is Mumbai. Though India reformed the construction industry in 2017 by speeding up building permit-processing time and reducing cost, Mumbai still requires the greatest number of building permit procedures. Mumbai has strict building density, building size, and building height regulations. However, despite the greater number of required procedures, Mumbai moderates permit-processing time using e-government solutions. A national e-government initiative called MCA-21, introduced in 2006, laid the groundwork for electronic business registration (Doing Business Report, 2009).

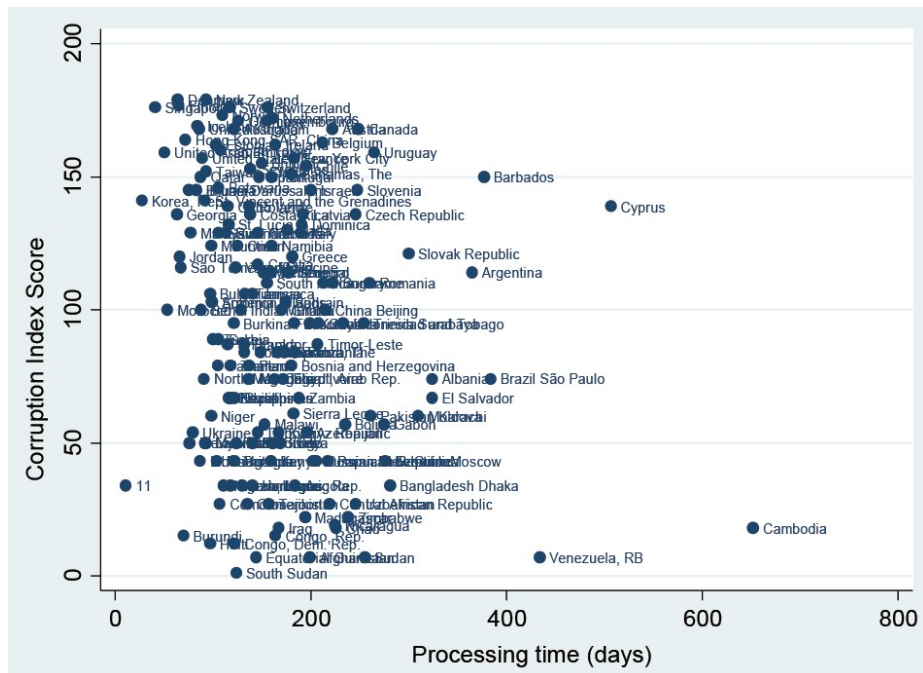
To summarize, factors that slow or accelerate administrative procedures and time are due to various contextual factors. Informal procedures due to lack of a formal system and legal guidelines may increase processing time. E-government can accelerate processing time, but heritage factors may result in strict regulations for obtaining building permit and passing inspections. In addition, government development plans and economic depressions may affect the speed of administrative processing times.

**Figure 8. E-government and Permit Time**



Source: Global E-government Survey (2018-2019)

**Figure 9. Corruption and Permit Time**



Source: Corruption Perception Index (BTI, 2018)

## 5.2 Regulatory Rules, Discretion, and Urban Attractiveness

This study attempted to empirically determine the extent to which the stage of regulatory quality can predict the physical aspects of urban attractiveness. Only regulatory quality after construction (ex-post) was a significant factor in the context of developing countries. Research on safety inspections for buildings and infrastructure provides a good starting point to understand how ex-post regulatory quality correlates with perceived physical urban quality. In particular, classical housing inspection and code enforcement literature in public administration are highly relevant to this study. Nivola (1978) emphasized that housing inspections and code enforcements are important regulatory functions and remain among the few major vehicles through which local governments can affect their residential environments. Furthermore, housing inspection services exemplify a classic street-level bureaucracy: great discretion is vested in lower-level personnel, who typically work under minimal supervision, in an environment often hazardous, frustrating, and fraught with conflicting role expectations.

Housing inspectors have wide discretion in handling individual cases for a variety of reasons. For example, in a city like Boston, with an old, often obsolescent, housing stock, any rule binding local inspectors to the letter of the law might well have resulted in citations for an overwhelming majority of buildings in the city. The literature focuses on the role of inspector as a street-level bureaucrat whose decisions affect urban outcomes.

At the organizational level, housing inspection- and enforcement-related literature explores how inspectors' discretionary decision-making processes affect building quality and the urban environment. Using cases from the Chicago



Department of Buildings, Jones (1985) found that political forces (Cook County's Democratic party) were involved in most aspects of the city's handling of the building environment, ranging from the policy arena in which building codes are developed, to the administrative arena in which building regulations are enforced. Mladenka (1980) found that bureaucratic decisions influence public service distribution more than politics (Levy, 1974; Lineberry, 1977). Nivola (1978) found that the distribution of public services in cities frequently has little to do with authoritative "policies" or "decisions," or with the relative influence of neighborhood groups. Commonly, as in Boston's housing inspection program circa 1973, service patterns are dictated more by internal imperatives of the administrative process than by dynamics of the local political system as a whole. Jones et al. (1980) maintained that rules are the routinized procedures for accomplishing the purpose of the organizations. They are 1) used by bureaucrats to simplify decision making, 2) influenced by professional standards, and 3) tend to reduce uncertainty and encourage coordination (Rees, 1993).

May's (2005) more recent regulatory implementation studies are also highly relevant here. He discussed two concerns related to red-tape issues in housing quality: delays in construction and rehabilitation, and the added burdens of regulatory implementation discouraging housing development or rehabilitation. In particular, he claimed that delays in construction and rehabilitation of housing could be traced back to cumbersome decision-making processes. Delays add to the costs of construction; also, the impacts of local administrative discretion become the most burdensome barriers to urban outcomes. May (2005) also emphasized that regulatory implementations become layered over time, due to fragmented

administrative structures and new agencies. New regulations are added or new provisions developed, resulting in a patchwork of regulatory requirements, or a patchwork of different agencies haphazardly administering a variety of different regulations. Because different levels of government administer various regulations, some overlap in regulatory functions is inevitable. For example, permits associated with development in areas with wetlands may require review by the U.S. Army Corps of Engineers, along with parallel reviews by the U.S. Environmental Protection Agency, as well as those by corresponding state and local agencies.

The discretion of a housing inspector can be related to this study's findings on public officials' quality, which was positively correlated with urban attractiveness in terms of the existing physical urban condition.

The previous chapter's empirical result on the regulatory dimension is also worth noting. This variable was included based on the author's experience in the process of building construction. As an architectural designer, regulations, or the excessive set of rules requiring consultation with local public officials before and during construction, dominated most of my time. Surprisingly, however, regulatory quality after construction was only an important factor on urban attractiveness in the context of low- and mid-income countries.

The standard quality of the urban condition cannot be sustained by the market's self-interest alone. In order to protect residents' quality of life, bureaucratic interventions are required to control quality goals before, during, and after implementation. A pilot conversation with a permit official revealed that

*Even very minor identification procedures or demands, if it is requested*

*by public officials, citizens immediately recognize and perceive it as regulations. Even that is a small adjustment for minimal safety. However, if I do not request and confirm this, nobody will check. I think [the] permit process is calling for society.*

### 5.3 Bureaucratic Rules, Reform, and Urban Attractiveness

Previous chapters reviewed the dimensions of bureaucratic factors, such as administrative rules (number of procedures, processing time), regulatory rules (legal enforcement), and public official's behavior rules (discretion), linked with urban attractiveness. This dissertation maintains that high-quality bureaucratic factors help cities enhance the existing physical urban condition. In order to support this argument, this section reviews several relevant theories.

#### 5.3.1 *Economic reform with time*

Both theoretically and empirically, time is a complicated factor (Yang et al., 2009; Pollitt, 2009). At the macro level, the theory of developmental state can help discuss the time dimension in public administration. Much of the developmental state literature accounts for the time dimension in relation to an 'economic time gap,' something that developing countries need to 'catch up' to reach the standard of high-income countries. This catch-up speed was a key elements of the developmental model. South Korea is often considered to be an exemplary case for this concept, due to its accelerated economic growth between the 1960s and the 1980s. Kim (2020) argued that South Korea's distinguished catch-up strategies can be understood from two different perspectives: *market intervention* and *state intervention*. Neoliberal economists represented by the World Bank (1993) claimed that the success of the Korean economy was made possible through market-adaptive strategies, like export-led policies, rather than state intervention (World Bank, 1993; Yoo, 2004; Frank, 1975; Krueger, 1978,

1980, pp. 288–292; Bhagwati, 1978, pp. 1–38; Little et al., 1970; Balassa, 1978, pp. 37–45; Hong, 1975). This neoliberal context decreases the time necessary to foster economic growth (Ciccone & Papaionannou, 2007). Developmental theorists argued that appropriate government interventions, led by a small, elite bureaucracy recruited from the best managerial talents, led to market rationality in the long term (Amsden, 1989; Wade, 1990; Haggard, 1990; Woo, 1991; Mason et al., 1980; Jones & Sakong, 1980; Johnson, 1982, 1985; Cole & Lyman, 1971).

### ***5.3.2 Managerial reform with time***

Since the early 1990s, many practitioners and academics have suggested New Public Management (NPM) as the key roadmap to be used by developing countries to ‘catch up,’ mimicking the developmental state theory of the 1960s to 1980s. Many developing countries have taken up elements of the NPM package to reform their implementation processes for better provision of public service, replacing traditional bureaucratic virtues like equity, universalism, personal responsibility, professionalism, safety, and resilience with the principles of competition, specialization, efficiency, and flexibility (Christensen & Lægreid, 2001; Pollitt, 2002). NPM, or, more specifically, its American and British advocates, set goals, particularly those of more effective and efficient public organizations in developing countries (CIS; Drechsler, 2005). NPM opponents criticized this as a misplaced emphasis on improving management functions, a new form of “managerialism” that neglects wider governmental, political, and socio-cultural contexts (Dunn & Miller, 2007).

Manning (2001) argued that the successes of NPM were limited in developing countries for several reasons. First, public expectations of government in developing countries are fundamentally different from those found in OECD countries. Second, developing countries do not have enough resources to implement reforms, such as predictable resourcing, credible regulation of staff, and credible policy. Lastly, the outcome of NPM reform can be marginal in developing countries. For example, a 3% year-on-year efficiency savings in running costs, significant in OECD countries (example of the UK, quoted in Scott & Taylor, 2000) may not have any impact under any circumstances in developing countries.

These arguments are in line with recent criticisms toward New Public Management reform: benchmarking the success of western NPM reform, such as translating public organization into practice, principles pursuing efficiency, and administrative simplification, cannot provide appropriate solutions for developing countries (Pollitt & Bouckaert, 2011; Christensen & Lægreid, 2016; Im & Ho). The findings of this study extend this argument.

The classical time conception in PA theories cannot provide clear answers to the questions raised above, such as 1) the *positive effect of longer permit time* or 2) the *nonlinear effect of permit time* on urban attractiveness, for the following reasons. First, much of the NPM literature accounts for the time dimension in relation to managerial inefficiency: longer permit-processing times or delays of administrative time are considered signals of poor local government implementation and failed public service delivery. Based on the theoretical relationship, existing literature looks to identify a primary factor driving processes to become ‘faster.’ However, these mixed results suggest that administrative

procedure reforms focused on simplifying procedures or reducing time may not affect urban attractiveness in low- and middle-income countries.

## **5.4 Extended Study: Urban Quality Management: British and French Experiences**

### ***1. Colonial characteristics***

While the principles of the time factor in terms of permit-processing time and urban attractiveness are assumed to be universal, scholars have shown that the cultural environment and historical features can affect the perception of the physical condition of cities. Indeed, in developing countries, colonial experiences have greatly influenced many regulatory codes and urban planning processes. From a theoretical perspective, findings that French colonial experience is statistically significant, while British colonial experience is not statistically significant have interesting implications. In order to understand French and British colonial experience (Table 23) and their legal institutional effect (Table 22) on urban attractiveness in terms of urban condition, it is worth to review their approach of early urban condition improvement.



**Table 22.** Legal of Origin Descriptive Statistics

Legal of Origin	High income		Low- and Mid- income	
	Freq.	Percent	Freq.	Percent
1. English	17	32.69	34	29.31
2. French	16	30.77	58	50
3. Social	9	17.31	21	18.1
4. German	5	9.62	-	-
5. Others	5	9.62	3	2.59
Total	52	100	116	100

Source: La Porta et al. (1999) &amp; ICOW

**Table 23.** Colonial Experience Descriptive Statistics

Colonia Experience	High income		Low- and Mid- income	
	Freq.	Percent	Freq.	Percent
0_None	36	69.23	28	24.14
1_British	13	25	35	30.17
2_French	-	-	25	21.55
3_Others	3	5.77	28	24.14
Total	52	100	116	100

Source: CIA fact book

Since the late 19<sup>th</sup> century industrialization era, a certain level of urban quality of life has been the primary responsibility of government, and urban quality maintenance has been part of public services provision. Despite this study's focus on the context of developing countries, it briefly reviews cases of historical early Western government strategies for making cities attractive in the 19<sup>th</sup> century. It provides insights to understand their relationship, and different approaches to select variables for later empirical analyses.

Since the late 19<sup>th</sup> century, large cities in industrialized European and North American countries have experienced the radical change of uncontrollable population growth due to the mass migration of job seekers from rural areas and other countries. This growth has caused unprecedented urban problems such as noise, traffic jams, slums, air pollution, crime, and sanitation and health issues. In 1801, the London population already exceeded 1 million; Paris followed with 1 million people in 1851.

In order to support continuous population growth, more citizens expected government to control public health, safety, and welfare. This study reviews how three major Western cities (Paris, London, and Chicago) managed these problems to enhance urban quality for living in general. Three cities were chosen because each city shows variations of different implemented strategies to improve urban quality across Europe and North America.

### ***1.1 Case: Paris (France) Haussmann Reconstruction Model***

The case of the Haussmann reconstruction project in Paris (1850-1870) shows how France initially approached state-led urban quality improvement. The rebuilding of Paris by Emperor Napoleon III and Georges-Eugène Haussmann is one of the most formative occurrences in the enhancement of the urban living environment (Gandy, 1999) and it influenced many cities, such as Brussels, Bucharest, Madrid, Barcelona, Mexico City, Cairo, and Rio de Janeiro (Cavalcanti, 1997).

Until the middle of the 19<sup>th</sup> century, Paris experienced rapid population growth and poor living conditions, which caused various urban problems such as severe housing shortages, deterioration of the residential environment, hygiene, poverty, and social stratification. In addition, the medieval infrastructure was composed of narrow, small, and crowded streets, and undifferentiated urban spaces creating congestion and citywide health problems. During the period known as the Second Empire (1852-70), when Napoleon III ruled France, he asked an administrator, Baron Georges-Eugene Haussmann, to modernize and reconstruct Paris—to reengineer streets to allow for modern sewers systems, construct wide boulevards, light the streets with gas lanterns, formulate public building regulations, update and standardize façades for the city’s buildings, straighten streets with a reorganized, symmetrical road system, and build a central market, parks, schools, hospitals, asylums, prisons, and administrative buildings.

Paris strategically used the law, the tool of coerced power, to maintain a certain level of quality. For example, in 1852 (*Decree 1852*), a new law was passed by passed by Napoleon III:

*In all expropriation projects aimed at widening, straightening or creating*

*Parisian streets, the Administration will have the possibility of including the totality of affected buildings in its plans, in those cases where it considers that remaining sections are not of a size or shape that would allow for salubrious constructions to be erected on them. (Faure, “Spéculation et Société,” 443, Paccoud, 2015).*

According to the law, power is given to the ‘Administration,’ which has the right and duty to implement all improvements to the city’s old plans, in the name of public utility (Paccoud, 2016). Haussmann was appointed Prefect of the Department of the Seine in June 1853 and in charge of appointing the agents of municipal services, deciding on alignments and building permits for all of Paris’ roads, establishing expropriations to be carried out, and in general presided over all aspects of the municipal administration. In spite of these vast contributions and his special relationship with the emperor, as prefect, Haussmann was still a civil servant of the Imperial regime and thus subordinated to the Ministry of the Interior (Paccoud, 2015). Moreover, this power stretched to the private sector: at least once every ten years, the façades of all buildings were required to be regularly maintained, repainted, or cleaned; otherwise, one hundred francs were fined to private owners (Pinkney, 2019).

Initially, this applied only to Paris, but with the revision laws of 1884 and 1902<sup>8</sup>, all communities were required to produce a plan of building lines and levels and to operate a system of building permits. In communities with populations over 20,000, no building could be constructed without a permit. The provision of the Public Health Law created a public health bureaucracy, required communities

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<sup>8</sup> In 1884, the law on local government required all communities to prepare a general plan showing the alignment and leveling the streets and public spaces. In 1902, a public health act introduced compulsory building permits and required the laying out of drinking water and waste networks for cities of more than 10,000 inhabitants.

to take responsible measures to stop epidemics, required the provision of safe water, and regulated unsanitary housing. All communities were required to write sanitation regulations, subject to the approval of the department of health council (Hildreth, 2018).

### ***1.2 Case: London (England) Garden City Model***

The case of the garden city shows how England initially approached improvements to urban quality. The garden city vision was first presented to the public by Ebenezer Howard in 1892, as an alternative to growing congestion in the large cities. Howard envisioned a utopian, comprehensively beautiful environment harmoniously coordinated with residential areas, industrial areas, and parks. His solution was building compact urban cities with networked structures, promising a clean environment, free from air and water pollution, and an abundance of parks and open spaces. Howard had worked out a detailed structure of local government and had also conceived of a regional network of garden cities. In that sense, the garden city idea is a strategy of decentralization in terms of enhancing the urban condition.

In the 19<sup>th</sup> century, London was the first industrialized city with 1 million people in the world. Traffic and pollution due to recently-invented vehicles, railways, and factories powered by noisy steam engines deteriorated citizens' living quality (Winter, 2013). Factory laborers and homeless children were overcrowded on the street, due to the inadequate housing, which increased the crime rate as well. Moreover, unsanitary housing and street conditions affected public health quality as well as the individual health of workers.

Therefore, in contrast to Paris, London's priority was fresh air, greenbelts, town planning, and public parks, in order to live harmoniously in the city (Johnson, 2013). Therefore, urban quality improvement was part of the public health movement in England. For example, the 1848 Public Health Act focused on sanitation—piping clean water to homes and safely disposing of human waste—but led to a wider range of environmental improvements that held benefits for health, including the ventilation of dwellings and streets, the preservation of green spaces, and the upgrading of road surfaces (Hamlin & Sidley, 1998).

While Paris (France) underwent state-led improvement, in London, the local authorities controlled the living quality of residents. For example, the Metropolitan Buildings Office was formed in 1845 to regulate the construction and use of buildings in the metropolitan area of London. Surveyors were empowered to enforce building regulations which sought to improve the standard of home and business premises, and to regulate activities that might threaten public health. The [Metropolitan Board of Works](#) (MBW, 1855-1889) was the principal instrument of London-wide government from December 1855 until the establishment of the London County Council in March 1889. All local bodies were established by acts of Parliament.

The first English town planning act was passed as Part II of the Housing, Town Planning, etc., Act of 1909. It was the first legislation allowing local authorities to propose large-scale town-planning projects, and was passed by the British Houses of Parliament as follows:

*The object of the bill is to provide a domestic condition for the people in which their physical health, their morals, their character and their whole social condition can be improved by what we hope to secure in this bill. The bill aims in broad outline at, and hopes to secure, the home healthy, the house beautiful, the town pleasant, the city dignified and the suburb salubrious.*

The planning aspect of this legislation focused on extending regulatory control to the surroundings of the private house (Booth & Huxley, 2012), considering a part of the urban condition that needed government care. The law required local authorities to introduce town planning procedures and ensure that all homes were built to a good standard of functionality and spatial amenity (Keeping & Shiers, 2018). For example, the builder was required to give notice to the local authority's surveyor when work was about to begin (Booth, 1999).

### ***1.3 Case: Chicago (USA) City Beautiful movement***

The case of City Beautiful depicts a community-level approach to enhancing urban quality of life in Chicago. The 1890s were a period of intense introversion in urban America. For many among the civic-minded bourgeoisie, faced with increasing ethnic and cultural heterogeneity and the escalating threat of disorder, the problem appeared to be the very preservation of the urban social fabric.

This decade brought the United States' first nationwide attempt to respond to urban problems and disorder in American industrialized cities and enhance urban living conditions (Wilson, 1981). The City Beautiful idea stemmed from European cities, especially Haussmann's renovation of Paris and Britain's Garden City Movement. City Beautiful advocates believed that better sanitation, improved

circulation of traffic, monumental civic centers, parks, parkways, public spaces, civic art, and the reduction of outdoor advertising would make cities more profitable and harmonious (Fairfield, 2018). In that sense, a key concept of the American City Beautiful idea was not only the pursuit of a reformed physical environment, but also moral and civic reform. In a broad sense, here, beautification extended from the environment to result in grand societal improvements (Peterson, 1976).

#### ***1.4 Summary***

As I mentioned at the beginning of this chapter, comparing these three cities does not provide evidence of how bureaucratic factors determines urban condition and its quality for living. The cases of France, United Kingdom, and United States show how cross-country differences in government structure, especially political leadership, or administrative law, affect overall urban quality of living. For example, as Table 1 shows, Paris's reconstruction project exemplifies state-led urban quality improvement, in an existing city with strong administrative law and political leadership. United Kingdom's Garden City movement showed how Britain's government initially responded to the urban problems in London and envisioned an utopian urban condition, through local authorities. The City Beautiful idea in Chicago illustrated city government attempts to enhance the urban condition as part of a greater civic reform with community involvement.



**Table 24.** Urban Quality Management Strategies in the late 19<sup>th</sup> Century

Country	France	UK	USA
City	Paris	London	Chicago
Model	Paris Reconstruction	Garden City	City Beautiful
Project Period	1850-1860	1901-1920s	1897-1910
Main actor	State-led	Local Authority	Community
Tool	Coercive Law, Development over existing city	Decentralization, New town	Social Reform

### 5.5 Summary: Three Rules of Bureaucracy and Urban Attractiveness

In sum, the findings of this chapter support the empirical results of the low- and mid-income study: context and bureaucratic quality matter for urban attractiveness. This descriptive analysis illuminates ways in which bureaucratic factors can enhance physical dimensions of urban attractiveness. In particular, the time dimension is examined carefully. Therefore, this descriptive analysis does not provide evidence of their causal relationship, suggest a priority of bureaucratic factors, or introduce the best benchmarking cases. The core message of this chapter echoes the previous chapter: as long as the quality of bureaucracy remains high, government will be able to provide attractive urban conditions for their citizens without the economic sacrifice or institutional reform influenced by the ‘market-first’ values of developed countries.

As Jones (1985) claimed, the city's management of the built environment ranges from the policy arena to the administrative arena (Sharp, 1987). Political initiatives may affect the condition of urban quality, as might administrative pressure and fines that force private sectors to comply with the law. Construction

permits, surveyors, and inspections may be associated with the enforced standard of urban quality. As such, maintaining urban quality is both a political agenda and an implementation process.

One may question whether cases from 19<sup>th</sup> century Western cities are contextually relevant for cities in developing countries in the 21<sup>st</sup> century. These comparative urban cases from 19<sup>th</sup> century France, UK, and USA provide insights suggesting that maintained urban quality for the goal of urban attractiveness aligns with public service provision and varies across countries.

While the relationship between longer time and urban attractiveness remains unclear, these high-confidence results add to previous studies examining these relationships. Investigations related to accelerating or slowing down the permit-processing time at the managerial and policy level constitute a major contribution of this study.

## Chapter 6. Conclusion

The UN predicted that 68% of the world population will live in urban areas by 2050 (UN, 2018). World Bank agrees, anticipating that by 2050, with the urban population more than doubling its current size, nearly 7 of 10 people in the world will live in cities. Interestingly, future urban population growth will occur in the cities of developing, not developed, countries. Many large cities in developing countries exceed the size of New York and Paris and struggle to manage urban quality for their citizens. In consideration of this phenomenon, this research started with three general questions. What makes cities attractive? Who is responsible for maintaining clean and beautiful cities for citizens? Can cities become more attractive without an economic sacrifice? Many public officials and urban policymakers in developing countries tend to find answers from economic actors, such as firms, investors and international donors, who often suggest constructing new infrastructure.

Following established cross-disciplinary urban attractiveness literature, this research argues that high quality bureaucracy has the utmost importance for urban attractiveness. In synthesizing urban attractiveness literature from the public administrative perspective, I further claim that the attractiveness of the urban condition can be maintained through day-to-day oversight by individual bureaucrats through their ordinary, routine work. In spite of the practical significance of this relationship, previous studies have paid little attention to the bureaucratic determinants of the existing physical urban condition. In that sense, this dissertation attempted to develop a theory of urban attractiveness for residents

and assess how bureaucratic factors affect the physical dimension of urban attractiveness.

In this dissertation, I tested the three hypotheses through a study of developing countries, in particular low- and middle- income countries. I hypothesized that three bureaucratic factors, administrative procedure quality, regulatory quality, and public officials' quality, will be positively correlated with urban attractiveness, and tested this hypothesis using a number of different sources of data, including World Bank's Dealing With Construction permit dataset. Urban attractiveness in terms of the existing physical urban condition was measured as the perceived score of public services infrastructure quality from the Fragile States Index, such as the general provision of public service, health, education, shelter, and infrastructure. The empirical results of the low- and middle- income countries, using three years of data, suggest that regulatory quality after construction and quality of public servants correlate with urban attractiveness (H1b and H1c). Greater bureaucratic intervention after implementation is also an important factor for enhancing the urban condition.

Administrative procedure quality, however, shows mixed results: both less time (to obtain a construction permit) and a longer processing time (to obtain a construction permit) increase the score of perceived public service infrastructure quality. Administrative procedure was statistically insignificant or negatively correlated with urban attractiveness in terms of existing physical urban conditions. This unexpected result may be due to the inherited historical context of cities and/or the managerial culture of bureaucracy.

Our findings speak to a larger literature that argues for efficiency as the main principle of bureaucratic reform. Cutting time and procedures do not

necessarily bring positive urban outcomes. The empirical results suggest that personnel reform, such as higher public officials' competency and less arbitrary decision-making, will enhance urban attractiveness, particularly for low-and middle-income countries. Though public officials' quality is not a strongly significant factor in high income countries, it was statistically significant among low- and mid-income countries.

In that sense, these empirical results can be summarized as follows. First, administrative procedure quality should be understood in relation to the institutional, social, and cultural context. Second, bureaucrats' intervention after implementation will enhance urban attractiveness. Third, a higher quality of public officials is likely to improve the standard urban condition for residents.

## **1. Theoretical and Practical Contribution**

This research makes several contributions. First, recall that theoretically, this research closes an important empirical gap by offering a quantitative assessment of the effects of bureaucratic factors on urban outcomes. It examines the micro-level mechanisms of the bureaucratic process / existing physical urban condition link. Second, this research introduces bureaucratic-factor-related variables to the urban attractiveness scholarship, which have so far been overlooked. These findings reinforce the idea that such urban bureaucrats are decision-makers “whose impact on citizens’ lives is both frequent and significant” (Lipsky, 1971); these actors should become a permanent feature on the list of determinants of urban attractiveness, both in research and policy arenas. Lastly, construction permit data was introduced as the proxy measurement of bureaucracy at the urban level, covering 168 countries, and was utilized for the empirical analysis.

This study also makes other practical contributions. It not only attempts to find the link between bureaucratic process and urban attractiveness, but also provides policy implications for public officials and decision-makers in developing countries. Scholars have proposed two competing views to enhance the existing physical urban condition: market-oriented approaches and government-oriented approaches. Faced with these two options, existing literature assumes that better economic conditions will lead to better perceived urban attractiveness. By introducing government-oriented approaches, particularly bureaucratic roles, this study mainly suggests that the necessary precondition for enhanced urban attractiveness is to first reform bureaucracy, then engage in planning to attract more investment and construction, and benchmark successful cases from developed

countries for future planning. Empirical results support this argument: among three dimensions of bureaucratic factors, public officials' quality was a consistently significant dimension on urban attractiveness.

In addition, a fair amount of attention has been paid to development state theory, explaining how strong government and its appropriate intervention can lead to economic growth. However, few studies have examined the relationship between quality of bureaucracy and maintenance of cities using a cross-country setting. There is no perfect solution to urban problems in weak economic areas, but less corrupt, more efficient, more democratic governments are limited recommendations to make such cities more attractive for residents.

## **2. Limitations**

It is important to recognize the limitations of this research. As explained earlier, this is one of very few empirical studies covering cities in a large cross-country and low- and middle-income setting (totaling 168 cities in both high-income and low- and middle-income countries). One of the crucial issues in the study of city-level and developing country analysis is the inadequacy of data. To the best of the author's knowledge, there are not urban- and city-level data covering all developing countries for a longer period time. This study relied on a short T dataset only covering three years, and was therefore unable to test how changes in bureaucratic quality affect changes in urban attractiveness. As such, the results do not suggest a strong causal relationship between quality of bureaucracy and urban attractiveness.

Furthermore, the author asks that caution be used when interpreting the results. As outlined in the methodology section, this study adopted a number of strategies in order to overcome the inadequate data. First, missing data were imputed using multiple imputation methodology. Second, a few variables had to be substituted with urban- or country-level data. Thirdly, urban attractiveness was measured by perception survey data considering only its basic elements. Lastly, pre-existing levels of urban condition such as culture, history, development level, and legal institutions may affect the findings and need to be examined more carefully.



### **3. Directions of Future Research and Concluding Remarks**

Since this study is one of the few attempts to empirically uncover the general relationship between bureaucratic factors and the physical dimension of urban attractiveness in the context of developing countries, it calls for different new research avenues. The first area of further research would test the same hypotheses using subsamples other than income level. Political context and democratic context would further illuminate the idea of this study.

The second area of further research would employ qualitative data into a quantitative study. It is important to highlight that the attractiveness of cities is associated with psychological and subjective factors. In terms of qualitative methodologies, Q methodology reveals subjective structures, attitudes, and perspectives from the standpoint of the person or persons being observed (Brown, 1996). Q methodology using samples of permit officers and street-level public servants will strengthen the findings.

Importantly, not many city managers acknowledge how their duties relate to urban attractiveness, so it is important to explain the mechanism of the link to them in advance, using case studies (see Appendix 2 for a possible case). An earlier chapter also mentioned that not many citizens acknowledge that maintaining a certain level of urban quality (such as street cleanliness, safety, and public service accessibility) is a major outcome of interest for the city government. Residents may perceive urban attractiveness in terms of existing physical urban condition differently according to the context. Such individual-level analysis of urban attractiveness might be conducted through survey experiments, with scenarios in a few comparable cities.

A third area of further research could be a case study comparing selected cities in order to find unobserved variables and identify potential causal mechanisms. This study used cross-country samples controlled by income group. Case studies of cities will allow more in-depth understanding of the link between bureaucratic factors and urban attractiveness, by comparison. For example, Rome, Athens, and Phnom Pehn are historical cities, but discovering how historical differences and the role of bureaucracy affect urban attractiveness is only possible through case studies.

The key takeaway of this study is that, as long as the quality of bureaucratic factors remains high, urban attractiveness can be maintained at a quality to attract residents without economic sacrifice. The topic of urban attractiveness in terms of the physical urban condition is a more relevant and important topic than ever. Cities across the globe are currently being tested to the extreme with the current COVID-19 pandemic. Basic elements of urban attractiveness such as housing communities, amenities, health, and transportation are accelerating the spread of virus. How well cities are planned and managed impacts their ability to function – or not – during times of crisis. Due to this pandemic, many citizens have realized the invisible contributions of bureaucrats on their daily lives. As such, the topics addressed in this study may be further illuminating.

## Appendix 1. Assumptions for this Study

The study needs following assumptions;

***Assumption #1: In simplistic terms, the physical form of a city is purely an agglomeration of streets and buildings.***

The term 'urban form' can be used simply to describe a city's physical characteristics (Anderson et al., 1996). In this regard, physically, cities are a stock of buildings linked by space and infrastructure, and functionally, these fixed elements support economic, social, cultural, and environmental processes (Hiller, 1996). This study assumes that the primary elements of city form are buildings and infrastructures.

***Assumption #2: A city's physical characteristics express social norms.***

"Physical characteristics" refers to overall form, topography, buildings, infrastructure, transportation, utilities, open space, density, climate, vegetation, aesthetic quality, and urban design (Branch, 1985). These physical characteristics are intertwined with social norms (Lynch, 1984).

***Assumption #3: A city evolves.***

Cities are complex dynamic systems in a continuous state of change. They evolve in complex ways due to their size, social structures, economic systems, geopolitical settings, and the evolution of technology (Kennedy et al., 2007).

***Assumption #4:*** Any physical changes of a city need to be negotiated with the law. Legal rules and regulations collectively become codes (ex. zoning), and these ‘layered legal frameworks’ affect urban patterns, form, diversity, and the ultimate physical character of cities (Talen, 2012, 1). Under current law, cities have no “natural” or “inherent” power to do anything simply because they decide to do it. Cities have only those powers delegated to them by state government, and traditionally those delegated powers have been rigorously limited by judicial interpretation (Frug, 1984).

In that sense, this study claims that physical urban condition is the outcome of regulatory goods.

## Appendix 2: Case of Building Maintenance

This section explains how bureaucratic rules and their enforcement interact with the private-sector shaped quality of physical infrastructure (e.g., buildings, bridges, streets).

On June 29, 1995, at 5:55 pm, the street was full of injured citizens awaiting emergency care. More people lay under the broken building materials in the dust, waiting to be rescued. A five-story luxury department store, with four basement floors and five floors above ground, had completely fallen down in just 20 seconds, in the heart of Seoul, South Korea. Nobody imagined that a department store in business for just five years would collapse.

The president declared this site a Special Disaster Zone (July, 19<sup>th</sup>, 1995), the first in government history, and 77,060 firefighters, armies, and volunteers came to rescue people. However, this disaster left 502 people dead, 937 people injured, and six (still) missing. This still stands as the worst man-made social disaster in the modern history of South Korea after the Korean War.

The central phenomenon of this study is “building collapse”; the Sampoong Department Store Collapse was selected as a case study to narrow the scope, to see bureaucratic procedure through a single case. First, the Sampoong Collapse was the largest disaster in South Korean history and impacted every aspect of Korean society. In addition, this case was considered the deadliest structural failure in modern times, excluding the 9/11 terror attacks in New York<sup>9</sup>. Second, the Sampoong Collapse occurred in 1995, a year before Korea joined

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<sup>9</sup> <https://www.bbc.com/news/world-asia-22394094>

OECD; as such, it depicts the peak of Korean society as a developmental state. Lastly, while many studies explored the technological reasons for the collapse, very few studies reviewed the administrative aspects.

### ***1. Administrative Procedure***

Three main actors shape buildings: public (city government officers), private firms (such as architects, contractors, engineers, and project managers), and citizen (as clients or residents). In the production process of buildings, a multi-disciplinary practice, local authority, or government works with departments on integrated design and construction, systems buildings, prefabrication, standardization, and dimensional/modular co-ordination (Cohen et al., 2005).

Most construction clients are interested in the finished product, its cost, whether it is delivered on time, its quality, and its functionality (Egan Report, 1998). Once a building is built, however, it is too late and too costly to alter it (Jones & Livne-Tarandach, 2008). Therefore, it is critical to establish building plans in close cooperation with the client beginning in the planning stage. As Figure 1 shows, each procedure within project implementation requires interaction with public officials. This study views this as the regulator-regulatee interaction.

While various decisions such as the scale of building, number of floors, external appearance, and building use are made before and during the construction stage, the role of public officials is to confirm whether these decisions meet required standards. While the average car contains about 3,000 components, a house, by comparison, has about 40,000 (Egan Report, 1998).

This study concentrates on the interaction between public (city officials)

and private (architects, construction contractors) firms before and during construction to implement a construction project. Though the function of the building has to be approved by city government before a construction permit can be obtained, SDS was approved without this step (88.12.05)<sup>10</sup>. The inspection after construction determines whether the building was built according to the plans submitted for the construction permit. SDP obtained this certificate of building completion (90.07.27), but the actual inspection was executed six months *after* the issue of the certificate.

## ***2. Regulatory Quality***

Bureaucrats in the Seoul Metropolitan Government in charge of confirming business opening approvals issued a false official document stating that the facility standard and store area were consistent with the business plan, without on-site confirmation. Due to frequent design changes, the drawings, submitted to obtain the construction permit, became obsolete by the time of the actual construction<sup>11</sup>. To match back up, construction proceeded first, then drawings were recreated for the later inspection.

Just two weeks before SDS collapsed, the building passed a safety inspection by the city government. Seocho-gu Municipal Government reported to the Seoul Metropolitan Government that about 140 facilities in the department store were normal, based on a safety diagnosis<sup>12</sup>. Investigators found that the building had passed safety inspections three times in that year, even though

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<sup>10</sup> <https://www.bbc.com/news/world-asia-22394094>

<sup>11</sup> <https://news.joins.com/article/3103255>

<sup>12</sup> <https://www.mk.co.kr/news/home/view/1995/06/28904/>

building performance did not fulfill the requirements. In contrast to public facilities, private buildings are only inspected at the institutional level. Since the construction company was in charge of not only construction but also safety issues, SDS could hide their falsification.

Many scholars and experts have pointed to excessive design changes as the main cause of SDS collapse. Originally, the planned building function was mid-size commercial and office use, with four upper stories comprising a residential district. However, due to budget deficiencies, Sampoong had to target more profits, which caused them to extend an additional fifth floor and more underground parking spaces, even after opening it as a department store. These kinds of major structural changes had occurred four times before the building collapse, including additional floor construction and the demolition of concrete walls of a restaurant kitchen area, all without engineering experts. Later, it was found that countless informal functional and structural changes had been made. Building functions were altered from the original plan, from a four-story retail building to a five-story department store with restaurants, swimming pools, and an ice-skating rink on the roof<sup>13</sup> (Park, 2019, 153).

## *2.1 Quality of Public Servants*

An official report from the Supreme Prosecutors' Office, charged to investigate this

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<sup>13</sup> For example, no one raised any objections when building functions changed from a four-story retail building to a five-story department store with restaurants, swimming pools, and an ice-skating rink on the roof. City building enforcement officials permitted a huge, unauthorized air-conditioner to be erected on the roof of the building, causing enormous cracks in the walls. The building's owners fired contractors who had complained that planned design changes were unsafe. Scholars blamed the Sampoong collapse on weak enforcement laws and corruption in bureaucracy. Please read, {홍성태, 2015 #154} for more details.



case, declared it ‘a huge corruption scandal’ between the private and public sector, revealing a bribery network between the frontline city government inspectors and SDS executives. SDS bribed 12 local city officials (those in charge of overseeing construction and inspections) for special treatment during the *building permit* process.

## *2.2 Consequences*

### *2.2.1 Enactment of New Related Law*

Government immediately took action, by filling loopholes in the law. These changes affected not only construction-related law, but also the Korean Disaster Management System. The latter was reestablished through the Disaster Management Act of 1995 for the purpose of comprehensive management of man-made disasters. This national-level law allowed emergency management organizations in local government more authority, responsibility, and ability to act in emergency situation.

### *2.2.2 Intensified Permit Process*

After the building collapse, permit procedure was revised. Two review systems were introduced as law immediately in order to prevent the same mistakes. First, a mandatory pre-review system, coordinated by external experts and public officials, was required before the construction permit could be applied. Therefore, the local government had to form an architectural review committee in order to execute this procedure.

The building collapse triggered the revision of various laws related to architecture, but it also fragmented existing laws. This increased the regulatory burden on the

street-level bureaucrats who check the individual procedures. Furthermore, every procedure was required to be reviewed by public committee, which created more room for discretion to occur.

### Appendix 3: Additional Empirical Result

**Table 25.** Model 1 Imputed data: Pooled OLS, Random effect and Fixed Effect

VARIABLES	Imputed		
	(1) Pooled OLS	(2) Random Effect	(3) Fixed Effect (One-way)
<b>Permit Procedure</b>	-0.0109 (0.0124)	-0.0275** (0.0138)	-0.0109 (0.0127)
<b>Permit Time</b>	-0.000474 (0.000702)	0.00112** (0.000561)	-0.000474 (0.000706)
<b>Regulatory Quality (Ex-Ante)</b>	-0.449 (0.391)	0.242 (0.284)	-0.449 (0.358)
<b>Regulatory Quality (Interim)</b>	-0.0480 (0.215)	0.187 (0.138)	-0.0480 (0.243)
<b>Regulatory Quality (Ex-Post)</b>	0.944*** (0.292)	0.986** (0.388)	0.944*** (0.265)
<b>Competence of Bureaucracy</b>	1.351*** (0.472)	0.224 (0.170)	1.351*** (0.489)
<b>Discretion</b>	1.204*** (0.292)	0.258* (0.144)	1.204*** (0.318)
Local Government Index	-0.409* (0.225)	-0.0843 (0.111)	-0.409* (0.222)
Latitude	0.0270*** (0.00350)	0.0320*** (0.00743)	0.0270*** (0.00326)
Colonial Exp. British	-0.136 (0.196)	-0.103 (0.429)	-0.136 (0.162)
Colonial Exp. French	-0.671*** (0.143)	-1.149*** (0.295)	-0.671*** (0.161)
Legal of Origin	0.177 (0.110)	0.119 (0.237)	0.177* (0.0943)
Log (GDP per Capita)	0.997*** (0.0763)	0.492*** (0.174)	0.997*** (0.0768)
Log (Urban Population)	0.0425 (0.124)	-0.00947 (0.0726)	0.0425 (0.118)
Government Size (% of GDP)	0.000799 (0.0125)	0.00498 (0.00868)	0.000799 (0.0101)
Constant	-5.381*** (0.769)	-0.963 (1.462)	-5.323*** (0.796)
Observations	348	348	348
# of Countries	116	116	116
Time Dummy	Y	Y	Y
R-squared	0.73	0.81	0.73

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 26.** Model 2 Imputed data: Pooled OLS, Random effect and Fixed Effect

VARIABLES	Imputed		
	(1) Pooled OLS	(2) Random Effect	(3) Fixed Effect (One-way)
<b>Permit Procedure</b>	0.0373 (0.0379)	0.00219 (0.0410)	0.0373 (0.0438)
<b>Permit Procedure*2</b>	-0.00114 (0.000751)	-0.000634 (0.000895)	-0.00114 (0.00103)
<b>Permit Time</b>	-0.00678*** (0.00187)	-0.000416 (0.00195)	-0.00678*** (0.00193)
<b>Permit Time*2</b>	1.20e-05*** (2.96e-06)	2.91e-06 (3.71e-06)	1.20e-05*** (3.43e-06)
<b>Regulatory Quality (Ex-Ante)</b>	-0.412 (0.371)	0.194 (0.342)	-0.412 (0.350)
<b>Regulatory Quality (Interim)</b>	-0.108 (0.211)	0.190 (0.203)	-0.108 (0.239)
<b>Regulatory Quality (Ex-Post)</b>	1.035*** (0.284)	0.978*** (0.335)	1.035*** (0.262)
<b>Competence of Bureaucracy</b>	1.368*** (0.456)	0.227 (0.185)	1.368*** (0.468)
<b>Discretion</b>	1.224*** (0.284)	0.260* (0.152)	1.224*** (0.311)
Local Government Index	-0.451** (0.219)	-0.0786 (0.112)	-0.451** (0.217)
Latitude	0.0271*** (0.00344)	0.0319*** (0.00567)	0.0271*** (0.00321)
Colonial Exp. British	-0.170 (0.191)	-0.104 (0.294)	-0.170 (0.160)
Colonial Exp. French	-0.741*** (0.139)	-1.153*** (0.296)	-0.741*** (0.159)
Legal of Origin	0.132 (0.110)	0.111 (0.157)	0.132 (0.0940)
Log (GDP per Capita)	0.984*** (0.0745)	0.503*** (0.143)	0.984*** (0.0757)
Log (Urban Population)	-0.00532 (0.123)	-0.00940 (0.0787)	-0.00532 (0.120)
Government Size (% of GDP)	0.00516 (0.0122)	0.00505 (0.00862)	0.00516 (0.0100)
Constant	-4.953*** (0.771)	-1.163 (1.218)	-4.897*** (0.836)
Observations	348	348	348
# of Countries	116	116	116
Time Dummy	Y	Y	Y
R-squared	0.76	0.81	0.76

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

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## Abstract (Korean)

도시공간의 질과 관료경쟁력의 관계에 관한 연구:

관료제, 규제, 도시매력도 결정요인을 중심으로

최 혜 민

### 국문 초록

매력적인 도시는 자본만으로 만들어질 수 있는 결과물인가? 매력적인 도시의 질을 유지하기 위한 책임은 누구에게 있는가? 경제적 자원을 동원할 수 있는 능력이 부족한 도시들은 매력적인 도시를 유지할 수 없는가? 본 연구는 위와 같은 질문으로부터 출발하였다. 도시공간의 질을 높이기 위해서는 균형적인 시장과 정부의 역할을 필요로 한다. 그럼에도 불구하고 도시공간의 물리적 질을 다루는 다수의 선행연구들은 과거 호황기를 누린 산업 대도시들의 경험적 근거와 사례를 바탕으로, 주로 시장의 역할을 중심으로 한 개발과 경제성장을 통해 도시공간의 질이 향상될 수 있다는 표면적인 정책적 처방을 제시하는데 머물러 왔다.

본 연구는 투자에 기반한 경제적 성장은 건설과 인프라구축을 통해 도시공간의 질을 일정 수준 향상 시킬 수 있으나, 일정수준의 도시화가 이루어진 이후의 도시미관, 거리의 쾌적함, 건물의 안전등과 같은 사후적인 도시관리는 다시 정부의 영역으로 귀속되는 현상에 주목하였다. 구체적으로는, 매력적인 도시공간은 경쟁력 있는 정부, 그 중에서도

경쟁력 있는 관료를 통하여 조성되고 유지될 수 있음을 이론과 개념을 통해 주장하고, 이를 실증적으로 검증하였다. 도시정부 업무의 대부분이 보편적인 도시공간의 질을 관리하고 유지하는 기능과 밀접하게 관련이 있음에도 불구하고, 행정관료들이 도시공간의 질에 기여하는 긍정적인 부분에 대한 실증적 연구는 여전히 미미하다.

이러한 문제의식을 바탕으로 본 연구는 우선 기존 기업이 활동하기 좋은 도시의 관점에서 정의된 기존의 도시매력도 (Urban Attractiveness) 개념을 살기좋은 도시의 물리적 환경 상태라는 확장된 개념으로 재정의하여 이론적 논의를 확장하였다. 도시매력도는 경제학, 마케팅 그리고 지리학에서 주로 다룬 개념이긴 하지만, 도시라는 공간적 단위와 매력도라는 개인의 인식(perception)을 바탕으로 공간의 질적 측면을 모두 다룬 개념이라는 장점이 있다. 실증분석시 종속변수로서 도시매력도는 거주자가 살기좋은 가장 기본적인 물리적 공간의 상태로 한정하였다. 이후 116개 중소득·저소득 국가 (low-and middle-income countries)의 각 국가별 대도시들을 대상으로 하여 도시매력도와 관료적 요인의 관계 대한 통계적 실증분석을 실시하였다. 관료적 요인은 행정절차 (건축허가 시간, 절차수), 규제 (건설 이전, 건설과정 그리고 건설이후 관료의 개입정도), 공무원의 질(공무원역량, 재량)로 결정요인을 구성하여 분석하였다. 행정절차의 경우 기존의 선행연구들은 사업개시와 관련하여 기업의 환경적 측면에서 행정절차나 규제를 해석하였다면, 본 연구에서는 건설허가(Construction Permit)를 활용하여 사회적 측면에서 행정절차와 규제를 해석하였다는 점에서

새로운 시도이며, 이는 기존의 도시매력도 선행연구들이 다루던 기업활동을 위한 도시매력도가 아닌 거주자(residents)가 살기좋은 물리적 공간상태를 매력적인 도시로 측정하고 있는 본 연구에도 적절한 대리변수라고 볼 수 있다.

이를 위하여 전 세계 168개국의 대도시로 구성된 3년치 단기 패널자료를 구축하여 통합 OLS, 임의효과, 고정효과 분석모형을 사용하였다. 그러나 자료의 패널기간이 짧고, 관료적 요인이나 도시공간의 질이 단기간에 변하는 속성이 아니며, 모든 국가의 특성을 버리면서 변수의 시계열 적인 변화와 및 그 영향을 논의하는 것이 본 연구의 목적이 아니기 때문에, 최종적으로는 통합 OLS (Pooled OLS)와 임의효과(Random effect)모형만을 주된 분석모형으로 선정하였다. 주요분석 대상은 116개 중소득·저소득 국가의 대도시들을 활용하였고, 이후 52개 고소득 국가(high income countries)에도 동일한 분석을 통해 중·저소득 국가와의 결과를 비교하여 함의를 도출하였다.

본 연구의 분석단위는 도시이다. 그러나 많은 도시를 분석단위로 하는 기존의 선행 연구에서 한계로 밝힌 바와 같이, 연구자의 현재까지 지식으로는 전세계 모든 국가를 포함하는 신뢰성 높은 기관에서 발표하는 다년간의 도시수준 데이터는 없으며, 이러한 이유로 중소득·저소득 국가들을 대상으로 하는 도시연구는 실증분석에서 제외되거나 소수의 고소득 개발도상국 국가들의 도시들만이 분석에서 고려되어 왔다. 이러한 한계점을 보완하기 위해 저중소득 국가들을 대상으로하는 도시변수의 결측치는 STATA 다중대체(multiple

imputation) 패키지를 통해 자료를 보정하였다.

실증 분석 결과, 116개국 중·저소득 국가들의 물리적 도시공간의 매력도에 있어서 통계적으로 유의미한 관료적 요인은 ‘사후규제’와 ‘공무원의 역량 및 재량’인 것으로 나타났다. 흥미로운 점은 건축허가(construction permit)의 소요시간인데, 도시공간의 매력도에 있어서 통계적으로 유의미하지 않거나, 오히려 정(+)의 이거나 U자 형태의 비선형 관계를 가지는 것으로 나타났다. 즉, 건축허가 소요시간이 길어져도 물리적 도시공간의 매력도 증진 될 수 있다는 것이다. 시간과 절차를 간소화 해야 산출(output)이나 결과(outcome)의 효과성이 높아진다는 다수의 일반적으로 받아들여지고 기존 NPM 논의에는 배치되는 결과이다. 이에 대하여 본 연구는 행정의 소요시간이 도시가 가지고 있는 문화적 특수성, 지역의 역사, 법률체계 그리고 도시시장의 선출직여부 등에 따라 달라질 수 있음을 설명하였다. 52개국 고소득국가의 물리적 도시공간의 매력도에 있어서 통계적으로 유의미한 관료적 요인은 규제적 요인(사전규제와 건설과정의 규제)이 유일하였다. 이는 고소득 국가에 비하여 중·저소득국 국가의 물리적 도시공간 매력도에 있어서는 관료의 역량이 더 중요하며 사전보다는 사후의 관료의 개입에 따른 관리가 매우 중요한 요인이라는 것을 나타낸다.

추가적으로, 관료적 요인과 도시공간의 매력도의 관계를 이해함에 있어서 본 연구에서 활용한 통제변수들을 주목하여 볼 필요가 있다. 많은 중·저소득국의 도시들은 과거 영국이나 프랑스의 식민지였던 경험이 있으며, 이러한 경험은 과거 도시의 인프라와 형태와 밀접한

관련이 있음은 이미 다수의 기존의 선행연구에서 다루어왔다. 실증분석결과, 본 연구에서는 영국보다는 프랑스 식민지를 경험한 국가들의 현재의 물리적 공간의 도시매력도가 떨어지는 것으로 나타났다. 이는 철도나 도로등을 적극적으로 건설하였던 프랑스 식민지를 경험한 도시들의 인프라의 노후화에 따른 결과임을 유추해 볼 수 있다. 또한 지방정부의 리더가 비선출직 일수록 도시매력도가 높은것으로 나타났는데, 이는 개발도상국의 대도시가 결국 국가의 전체를 대변할 수도 있는 점, 중앙집권적일수록 빠르게 직접적으로 중앙정부의 재원을 도시에 투입하여 관리될 수 있다는 점, 공약이 아닌 중앙과 연계된 장기적인 관점에서 도시가 관리되어 질 수 있다는 점에서 그 이유를 유추해 볼 수 있다.

본 연구는 행정학에서 주로 다루지 않았던 주제를 이론적으로 개념화하고, 실증적 분석을 시도하여 관료들의 루틴화된 의사결정과정(bureaucratic process)과 법에 의한 업무처리가 사회에 기여하는 긍정적인 측면을 논의하고자 했다는 점에서 다른 연구들과 차별된다. 분석결과에 따른 정책적 함의는 다음과 같다. 첫째, 많은 개발도상국의 도시들은 자본만 있으면 도시가 개선될 수 있을 것이라는 환상에서 벗어나야 한다. 경제는 무한정 성장할 수 없으며, 자본의 이기심은 도시공간의 변화만을 추구하며 근본적인 도시의 질을 유지시켜주지 않는다. 본 연구에서도 도시에 관리는 경제적 수준의 문제가 아니라, 그 도시가 가지고 있는 역사적, 문화적 그리고 제도적 요인에 따른 차이가 있음을 보여주었다.

둘째, 도시의 매력도를 높이기 위해서는 선진국의 자본 혹은 제도개혁보다 도시관료의 개혁이 선행되어야 할 필요성이 있다. 본 연구의 실증분석결과에서도 중·저소득국의 도시매력도에 있어서는 사후규제를 통한 관리와 관료의 질이 통계적으로 유의미하게 나타났다. 즉, 절차나 시간 등의 효율성을 증진시키는 목적의 개혁보다 관료의 질이 더 중요한 요소일 수 있음을 보여주며, 선진국의 자본, 기존의 절차나 제도를 통한 개혁이 아닌 관료의 개혁을 통해 도시가 개선될 수 있다는 것을 의미한다. 본 연구의 결과에서도 고소득국가와 중·저소득국가의 도시매력도에 있어서 각각의 관료적 결정요인이 상이한 것으로 나타났다.

결론적으로, 본 연구는 기존의 어느 도시가 매력적인지를 판단하고 벤치마킹식 접근을 통해 도시의 질을 분석한 국가수준 연구와 달리, 모든 도시들은 각자의 매력을 가지고 있고, 이를 유지하고 관리하는 능력에 초점을 두고 실증연구를 하였다는 점에서 그 의의가 있다. 위의 논의를 통해, 본 연구는 도시의 물리적 공간의 질은 행정절차, 규제, 관료의 재량등과 같은 ‘관료의 법칙(rules of bureaucracy)’에 따라 다수를 위한 최소한의 질을 보장할 수 있으며, 이는 도시매력도에 가장 중요한 요인임을 주장한다.

**주요어** : 관료제, 규제, 관료경쟁력, 도시공간, 도시매력도, 개발도상국, 도시정책

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