# Place Attachment in Municipality Office Building: A Case of Kirtipur Municipality Office

Ganga Sagar Bhatt<sup>a</sup>, Ashim Ratna Bajracharya<sup>b</sup>

a, b Department of Architecture, Pulchowk Campus, IOE, Tribhuvan University, Nepal

a 078march006.ganga@pcampus.edu.np, <sup>b</sup> ashim@ioe.edu.np

#### Abstract

Place attachment is a bonding between people and the places. It is one of the important aspects of the design and planning field. This paper aims to study the level of place attachment in the Kirtipur Municipality Office. This paper also aims to identify the factors that contribute to place attachment with the office environment in the Nepalese context. The research was conducted on the mixed method approach including questionnaires surveys and in-depth interviews with office employees. This research shows that the place attachment in the Kirtipur Municipality office is of average category. This result suggested that the place attachment can be developed with the implementation of the requirements of the employees as far as possible and designers should be aware of the time to time updates on the design knowledge and solutions. The in-depth interviews of the employees of the municipal office revealed that the office should consist of various spaces other than the main working layout of the office where the employees spend maximum time of their daily office life. The study revealed that the current office buildings do not meet the requirements of the employees. Factors like interaction spaces, overall aesthetics of the building, biophilic design, office basic amenities, etc. are not properly designed and maintained in the design process. The conclusion of this study is the requirement of the office building design guidelines which can prioritize the occupant place attachment, comfort, and productivity.

#### Keywords

Office, Attachment, Productivity, Well-being

## 1. Introduction

Kathmandu is the largest city as well as the capital city of Nepal. The two metropolitan cities among six metropolitan cities of Nepal are also situated in the Kathmandu Valley. The country is divided into 753 local levels and the major works are conducted in the municipality buildings of the respective places. [1]. The design of the municipal building environment is a key factor for the success of the local levels, which gives satisfaction to employees as well as visitors. The municipality is the key office which consists of all of the facilities and services available at the local level. The municipality is the major economygenerating place and major service provider at the local level. The employee's attachment to the office is an important aspect to increase employee satisfaction and well-being. The design of the building and building environment is the main key factor for the attachment to the place. Thus the place attachment in an office environment is a crucial factor for the success of the organization.

The phenomenon of people forming emotional ties to their physical environment has been continuously described by the concept of place attachment. Despite the fact that place attachment has a variety of meanings across the social sciences, this nevertheless happens [2]. There is a dispute about how to define, describe, and evaluate place attachment because of the interdisciplinary character of the topic and the use of multiple epistemological and theoretical influences [3].

For instance, definitions of place attachment differ depending on the topic: either the focus is on the strength of the people-place relationship, the results connected with those bonds, or on related constructs, such as place identity [4]. There isn't currently a widely accepted overall theoretical framework in place as a result. Despite theoretical differences, the popularity of the research on people-place ties across social science disciplines and its use in a variety of research contexts make its importance clear, such as social housing policy [5], neighborhood design [6], regional planning [7], and pro-environmental engagement [8].

## 2. Objectives

- To identify the level of place attachment and its key factors in municipal office building
- Analyze how office layout, aesthetics, and spatial organization of physical design aspects affect the attachment to the office.

# 3. Scope and Limitation

The research findings can be implemented in the design of the government municipal office buildings as well as other government office buildings which are of similar character as municipality offices. As a result of the study's potential restrictions on a certain office building or region, the results might not be generalizable. Time and resource constraints may have an impact on the size of the sample and the investigation's scope. The study might not take into consideration all potential elements affecting place attachment due to the limitations of the research or data that are currently available.

## 4. Literature Review

#### 4.1 Place Attachment

Place attachment assesses how much a person values and associates with a specific environment, as well as their emotional investment in a location [9] Place attachment is a complex relationship between affections and feelings, knowledge and ideas, and behaviors and actions in relation to a place. Thus, interactions between people and places, as well as their built meanings and associated features, all contribute to the construction of place attachment. [2]

Place attachment is a type of attachment in which there is a desire to stay close to something that creates a unique emotion for a specific location [10]. People need to become emotionally attached to many different things. They develop attachments to their surroundings as well as to other people [11]. The attachments that people develop to places are equally as fundamental to being a person as the attachments that people have to other people. In this regard, studies on place attachment shed light on the variety of meanings people attribute to their surroundings [12].

#### 4.2 Workplace Attachment

The emotional connection that develops as a result of a dynamic interaction between a worker and his or her organizational environment is known as an attachment to the workplace and is regarded as a crucial component of the quality of working life [13]. According to numerous studies, when employees have the freedom to personalize their workplace, they feel more a part of it, which improves factors that indicate the quality of working life, including performance, job satisfaction, and overall well-being [14]. The workplace has been the focus of numerous studies in recent years that have examined attachment to the workplace in connection to a variety of psychosocial issues. Employees who have strong emotional ties to their employer are much more likely to form strong emotional bonds with their company [15]. Employees who are more invested in their employment are more likely to act like good neighbors to their coworkers and support the team's efficient operation. Additionally, workers who are emotionally connected to their place of employment report higher levels of job satisfaction than employees who are less emotionally connected with their coworkers [16].

## 4.3 Factors Affecting Occupants Place Attachment

A relationship between people and places is called place attachment. There are several variables that can affect how attached people are to their workplace. Location and amenities in the immediate area, aesthetics, workplace design, amenities, and indoor environmental quality considerations are the key characteristics identified in the literature.

The choice of homes and offices is greatly influenced by the site's location. Offices close to public infrastructure have better employee place attachment and draw more workers [17]. The aesthetics of an office environment can impact occupants' place attachment and sense of well-being. Any setting can be made more appealing by good aesthetics. Office occupants' perceptions of the surrounding shapes, textures, and colors

are influenced. According to studies, the use of different colors might affect how people behave [18].

Office layout design is one of the important parameters of place attachment that influence workplace performance and behavior. Our working style and productivity are influenced by design, closeness, and privacy. The workplace's physical environment has an impact on employee hiring, retention, and productivity, which in turn has an impact on an organization's capacity to succeed in the marketplace [19]. Planning the workplace inside an organization should take into account the unique needs of the workforce and the company. Building project requirements specify what is desired from a building solution rather than describing the solution itself. User requirements are focused on building features that will let users do their activities effectively, safely, and with consideration for occupant pleasure [20]. Humans spend the majority of their time indoors, and the vast majority of people on the planet live in cities and work in offices. Globally, the economy has undergone a considerable transition from the manufacturing sector to the service and knowledge-based industries, which are based indoors in offices [21]. Hence, it is becoming important to understand the indoor office environment and the effect it has on occupant place attachment, performance, and well-being.

## 5. Study Area

The case area for the research is proposed as a Kirtipur Municipality office building. Kirtipur is a historical city of Kathmandu Valley. Kirtipur city is a beautiful city located near Swayambhunath stupa and situated in an elevated part of the valley. The city consists of green areas. The municipality building of Kirtipur municipality is constructed in a modern architectural style. The outdoor space is limited in this building.



Figure 1: Kirtipur Municipality Office

## 6. Methodology

In order to fully comprehend a phenomenon and its narrative, the attachment study must combine quantitative and qualitative methodologies. Quantitative techniques can determine "how much" the relevance of the connection between places and individuals is [11], and Finding "what the places mean to people" can be done using qualitative methodologies [22]. Researchers can use quantitative approaches to examine the statistical significance of the connection between people and locations; inferential statistics offer the advantage of employing a sample, or a smaller subset of the full target population, to generalize the research findings to the target population. When details and context are provided, qualitative approaches can then be used to discover why such associations exist. They can also be used to identify new elements that quantitative methods do not consider [22]. Therefore, a mixed methods approach offers analytical strengths from each method in a study, enabling researchers to unravel the complete story of research challenges [23]. The data was collected from the Kirtipur Municipality office building of Kathmandu Valley. This study employs a mixed-methods approach, combining both quantitative and qualitative methods. This methodology enables the simultaneous examination of both numerical and non-numerical data. The study predominantly utilized a quantitative research approach. However, to gather qualitative data, open-ended questions were incorporated into a primarily closed-ended questionnaire, allowing respondents to provide additional information to enhance the depth of their quantitative responses. Interviews were conducted in six of the departments inside the municipality and participants were chosen randomly from each department based on their office layout inside the building. The questionnaires for the survey consisted of two major portions and included the questions in Likert scale-type questions. To measure the perception of users about the office environment and place attachment, the participants were enabled to answer the Likert-scaled questions from strongly agree to strongly disagree. The parameters used in Likert scale questionnaires for place attachment are location, aesthetics, office layout, amenities, and indoor environmental quality. These all are the parameters for measuring place attachment. The measurement scale is in 5-point Likert scale type. The criteria were prepared in degrees for a 5-point Likert scale. 1 indicates strongly disagree, 2 indicates disagree, 3 indicates average, 4 indicates agree and 5 indicates strongly agree. The table below is the analysis of the mean value that will be obtained from the Likert scale [24].

Table 1: Mean sco	ore of the Likert scale
-------------------	-------------------------

Mean Score	Interpretation of Result
1.00 - 1.80	Strongly Disagree
1.81 - 2.60	Disagree
2.61 - 3.20	Average
3.21 - 4.20	Agree
4.21 - 5.00	Strongly Agree

# 7. Analysis and Discussion

## 7.1 Place Attachment in Kirtipur Municipality Office

The place attachment with the office is a broad term used to describe the attachment of the employees with their work environment. The place attachment is an important concept and should be considered for the better working environment and well-being of the employees. The place attachment can be affected by various architectural factors like the location of the building, overall aesthetic of the building, the working layout, facilities and amenities available in daily life, indoor environmental factors etc.

## 7.1.1 Location

The location of the office building plays an important role in the place attachment of the employees. The office located in the appropriate location has a good place attachment with the employees. Figure 2 shows the different parameters of the location and their mean value. The highest mean value was seen in surrounding institutions. Academic institutions like Tribhuvan University's central campus as well as some highquality schools are present in the surrounding area of the office. On the other hand, surrounding amenities mean value is very low, which suggests that the basic amenities are lacking in the surrounding environment.

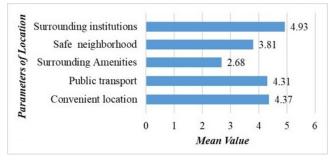


Figure 2: Place Attachment in Location

## 7.1.2 Aesthetics

Most of the employees are attracted to the exterior design of the office building which is constructed in the traditional architectural style. The employees are very much dissatisfied with the greenery and landscaping design as there is very little outdoor space in the office premises.



Figure 3: Exterior of Kirtipur Municipality Building

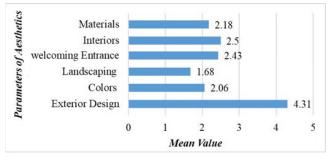


Figure 4: Place Attachment in Aesthetics

#### 7.1.3 Office Layout

The office layout is one of the important aspects of office design as well as for the place attachment. Fig 5 shows that the employees are satisfied with the storage area available in the office. The figure shows the lowest mean score in interaction areas. There are no other areas than the working layout and a multipurpose hall. This suggests the importance of the interaction area for employees in the office environment.

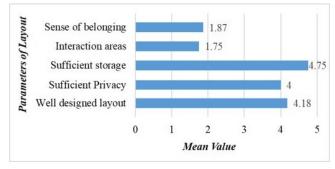


Figure 5: Place Attachment in Layout



Figure 6: Interior View of Kirtipur Municipality office

# 7.1.4 Amenities

The basic amenities that are used on a daily basis are the very important factors for the positive attachment of the employees with the office. Figure 7 shows the highest mean score in the meeting rooms facility while the lowest mean was seen in the functional cafeteria in the office. The figure also shows the problem in the parking area of the office. The overall figures show that the amenities in this office are good enough except for some features like the cafeteria and break areas.

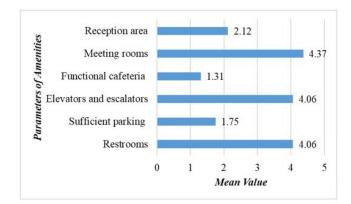


Figure 7: Place Attachment in Amenities

# 7.1.5 Indoor Environmental Quality Factors

The Indoor environment is one of the most important aspects from occupant health as well as place attachment perspective. Figure 8 suggests that the natural light is sufficient in this office. As the office building is open from all four sides and there is a courtyard on the front side of the building, which helps in the penetration of natural light in the building. On the other hand, the thermal comfort was seen as poor in this building because of the orientation of the building. Again, the acoustic comfort also shows less mean value. The reason for the poor acoustic comfort is the location of the office building which is just beside the main road.

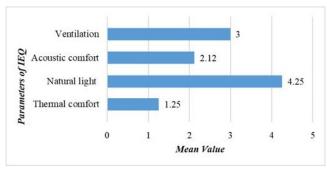


Figure 8: Place Attachment in IEQ Factors

# 7.1.6 Mean Place Attachment

The mean value of the place attachment of the Kirtipur municipality office is shown in Fig 9. The mean value is categorized under the average category i.e. 3.093. The employees are averagely attached to the office environment in spite of the newly designed and constructed building. The parameter location shows the highest mean place attachment while the aesthetics shows the lowest mean place attachment. The office is located in the city center of Kirtipur city which provides comfort to the employees. On the other hand, the building is aesthetically beautiful from the outside but overall aesthetics is not good. This result suggests that the building aesthetics parameters like materials, interiors, landscaping, entrance, etc. rather than focusing on a single parameter.

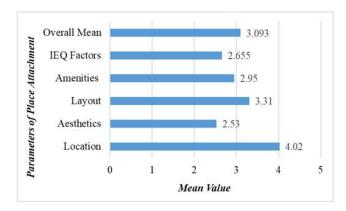


Figure 9: Mean Place Attachment

#### 7.2 Analysis of Interviews

The in-depth interviews were taken during the phase of data collection. A total of six interviews were conducted from the different departments of the office. A number of 12 questions along with some unplanned questions were asked to each respondent, among which some comments were general comments while some comments were useful comments from the design perspective. Some respondents had the same opinion on different issues. The study identified a significant issue with social interaction in the office, as there is currently no designated space for it. Respondents noted a lack of interaction affecting communication among employees, hindering effective workplace communication. Establishing a dedicated interaction space, such as a well-decorated canteen, is crucial for fostering better communication, improving workflow, and enhancing place attachment in the municipality office.

The study found that employees are primarily drawn to the traditional exterior design of the Kirtipur Municipality building, emphasizing its role in employee attachment. However, concerns were raised about the narrow and functionally inadequate entrance, causing difficulties for simultaneous entry and exit. The study recommends a wider and aesthetically pleasing entrance to accommodate the flow of people in a public office setting.

Basic facilities such as parking, washrooms, and circulation significantly impact place attachment. Employee dissatisfaction with these facilities was noted, emphasizing the importance of daily services for stronger attachment. The study suggests that effective layout management, rather than just having ample space, is crucial for a positive working environment. Despite having sufficient space, the Kirtipur municipality building faces challenges due to inadequate space management.

Employees expressed concerns about the absence of green space and parks around the building exterior. While an outdoor garden is not feasible, the study suggests integrating greenery within the interior for a connection to nature. The case study proposes that enhancing the green aspect of the office building is crucial for fostering stronger attachment. Even in situations where an outdoor space is unavailable, such as in Kirtipur municipality, introducing green spaces indoors through design interventions can contribute significantly to a livelier and more naturally connected environment, promoting better place attachment.

A highlighted concern from an employee is the absence of private spaces for nourishing mothers in the municipality office. Given the office's size and the occasional need for such facilities, the study suggests the importance of incorporating designated spaces to address the needs of breastfeeding mothers.

Interviews highlighted concerns about zoning in the municipality building, emphasizing its public nature. Despite being a local government office offering diverse services, certain tasks, such as development planning, budgeting, and policy-making, demand privacy and a barrier to public interference. The study underscores the need for designated spaces to provide both privacy and the necessary environment for tasks that require employees to stay focused within the office.

## 8. Conclusions

The findings of this study suggested that the place attachment of the employees is highly dependent on the design of the office environment. As the office employees spend maximum time in their working layout, the place attachment does not only depend on the layout only. Despite the good and comfortable layout of the Kirtipur municipality office building, the place attachment was found to be of average category. This finding shows that place attachment depends on various factors. Despite the newly constructed and newly designed Kirtipur municipality building, the place attachment was not good. Features like outdoor spaces, green and biophilic design, technological advancement, entrance design, etc. are the factors that are lacking in this design. This suggests that the importance of biophilic design, technological advancement, and entrance design are important aspects of place attachment. The municipality office building consists of a well-designed working layout and sufficient interior space in the building. Despite the good layout and newly designed building, the place attachment does not come under the good category. The result of this research provides new insights into the need for a well-designed office and its environment that can fulfill the needs of the employees. The working layout is important but the office should consist of other well-designed spaces also. The design interventions that lead to the development of place attachment definitely increase the productivity and well-being of the employees.

#### 9. Recommendations

The findings of this research are beneficial for the Architects and Planners in the field of office design. The new interventions in the office design like the interaction spaces for the employees like break rooms or well-designed canteens areas, the green and biophilic design in the office environment, indoor as well as outdoor aesthetics of the building, personal spaces, etc. should be considered by the Architects and planners while designing the office buildings. The government and government agencies should be aware of the overall development of the employees and should implement the guidelines which can improve and develop the place attachment with the office building. The guidelines should consider not only the physical aspects but also the psychological aspects of the employees. These types of guidelines and design interventions definitely improve the place attachment of the employees with the office environment and ultimately increase the productivity and well-being of the office employees.

#### 10. Further Study

This study on place attachment was done from the office occupant's perspective. The municipality building's users are both occupants as well as visitors. The municipality office is the place that is designed to give services to the public of the respective municipality. Because of this reason, the visitors are also the important stakeholders of the municipality. The place attachment from the visitors' perspective is also an important research that has to be done for the better environment of the office. Therefore, the place attachment study from the visitor's perspective can be a field of further study in municipality office research design.

## 11. Acknowledgement

The authors express their sincere gratitude to the office employees for providing the necessary documents and giving their valuable time for the research process. The authors are also thankful to all the people who helped throughout the research process.

#### References

- [1] Government of Nepal. Constitution of nepal. 2015.
- [2] I. Altman and S. Low. Place attachment: Human behavior and environment (vol. 12), new york. *Plenum Press*, 1992.
- [3] Michael E Patterson and Daniel R Williams. Maintaining research traditions on place: Diversity of thought and scientific progress. *Journal of environmental psychology*, 25(4):361–380, 2005.
- [4] David M Hummon. Community attachment: Local sentiment and sense of place. In *Place attachment*, pages 253–278. Springer, 1992.
- [5] Lynne C Manzo and Douglas D Perkins. Finding common ground: The importance of place attachment to community participation and planning. *Journal of planning literature*, 20(4):335–350, 2006.
- [6] Ombretta Romice and David Uzzell. Community design studio: A collaboration of architects and psychologists. *Centre for Education in the Built Environment Transactions*, 2(1):73–88, 2005.
- [7] Jennifer Farnum and Linda Everett Kruger. Place-based planning: innovations and applications from four western forests, volume 741. US Department of Agriculture, Forest Service, Pacific Northwest Research Station, 2008.

- [8] Leila Scannell and Robert Gifford. Defining place attachment: A tripartite organizing framework. *Journal* of environmental psychology, 30(1):1–10, 2010.
- [9] Roger L Moore and Alan R Graefe. Attachments to recreation settings: The case of rail-trail users. *Leisure sciences*, 16(1):17–31, 1994.
- [10] M Carmen Hidalgo and Bernardo Hernandez. Place attachment: Conceptual and empirical questions. *Journal* of environmental psychology, 21(3):273–281, 2001.
- [11] Maria Lewicka. Place attachment: How far have we come in the last 40 years? *Journal of environmental psychology*, 31(3):207–230, 2011.
- [12] Gerard Kyle, Alan Graefe, Robert Manning, and James Bacon. Effects of place attachment on users' perceptions of social and environmental conditions in a natural setting. *Journal of environmental psychology*, 24(2):213– 225, 2004.
- [13] Liliane Rioux and Anne Pignault. Workplace attachment, workspace appropriation, and job satisfaction. *Psyecology*, 4(1):39–65, 2013.
- [14] DİNÇ Pınar. Spatial and behavioral variables that affect â emotional attachmentâ of users: A multi-dimensional approach for private offices. *Gazi University Journal of Science*, 20(2):41–50, 2010.
- [15] Lucy Velasco and Liliane Rioux. Enfoque psicosocial del "apego al lugar de trabajo". estudio realizado con personal hospitalario. *Estudios de psicologia*, 31(3):309–323, 2010.
- [16] Adrian Leaman. Dissatisfaction and office productivity. *Facilities*, 13(2):13–19, 1995.
- [17] Gary Wheeler and Alessandra Almeida. These four walls: the real british office. *Creating the Productive Workplace*, page 357, 2006.
- [18] Catherine Turton. *Defining residential place attachment and exploring its contribution to community and personal environmental actions*. University of Surrey (United Kingdom), 2016.
- [19] Liliane Rioux. Construction of a scale of commitment to the workplace: An exploratory step. *Canadian Journal of Behavioural Science-Revue Canadienne des Sciences du Comportement*, 38(4):325–336, 2006.
- [20] Frank H Mahnke. Color, environment, and human response: an interdisciplinary understanding of color and its use as a beneficial element in the design of the architectural environment. John Wiley & Sons, 1996.
- [21] Mohammad A Hassanain. Analysis of factors influencing office workplace planning and design in corporate facilities. *Journal of Building Appraisal*, 6:183–197, 2010.
- [22] John W Creswell. *A concise introduction to mixed methods research*. SAGE publications, 2021.
- [23] WGB Council. Health, wellbeing & productivity in offices. *World Green Building Council*, 2014.
- [24] Karin Braunsberger and Roger Gates. Developing inventories for satisfaction and likert scales in a service environment. *Journal of Services Marketing*, 23(4):219– 225, 2009.