

**A CASE STUDY OF OFFICE TYPOLOGIES :  
EFFICIENCY OF SPATIAL FACTORS FOR COWORK SPACES AND  
COLLABORATIVE ACTIVITY**

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UNIVERSITI TEKNOLOGI MALAYSIA

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COLLABORATIVE ACTIVITY**

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## **DEDICATION**

This thesis is dedicated to my father, who taught me that the best kind of knowledge to have is that which is learned for its own sake. It is also dedicated to my mother, who taught me that even the largest task can be accomplished if it is done one step at a time.

In addition, the highest appreciation is also given to employers and colleagues who provide encouragement and support to continue their studies in the field of the master.

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## **ABSTRACT**

Co-working, which first became a recognised working style in 2006, was a relatively recent trend in the workplace. Co-working was the practise of sharing a physical workspace and office resources with people who were not affiliated with the same company. It was one of many components of the new sharing economy and was a voluntary process. Co-workspaces were points within a community where individuals from different backgrounds may came together and collaborate in closed quarters, strengthening the social network connections between them. Social capital was correlated with an increase in social network links. A large number of people with extensive social networks helps to increase a community's overall resilience. Numerous studied on the workplace examine how behaviours liked cooperation and information sharing were impacted by an employee's leveled of satisfaction with their employment. due to the recent emergence of co-working. It had been possible to develop co-workspace design by gaining a better understanding of how spatial factors in co-workspaces affect member satisfaction with the environment and the collaborative activities that took placed there. This thesis examines a case studied on co-working office typologies, where to measured by how satisfied they was with the space's physical attributes and collaborative activities. The space syntax simulation had been used to demonstrate the connectivity and integration in the design layout so that the final result could been understood more thoroughly. Co-workspace elements could improved member satisfaction. The following geographical factors was investigated: openness, proximity to others, flexibility, privacy, diversion, and territoriality. During data collection, the availability of plants, sunlight, and window views also went up as crucial factors for the participants. It had been demonstrated that openness, variety of locations, and auditory distractions all affect changes in coworkers' happiness with the collaborative environment. A mixed of one large opened workspace, two private offices, and adjustable workstation positions and heights offered variety. Additionally, there was gender-and role-based variations in satisfaction, showing that members' opinions of the spaces and their experiences there were impacted by their jobs and other personal characteristics.

## ABSTRAK

Bekerja bersama merupakan satu trend yang agak baharu di tempat kerja, setelah muncul sebagai gaya kerja formal pada tahun 2006. Tindakan berkongsi ruang kerja fizikal dan sumber pejabat dengan orang yang bukan pekerja firma yang sama dikenali sebagai kerja bersama. Ia adalah prosedur sukarela yang merupakan salah satu daripada banyak aspek ekonomi perkongsian baharu. Ruang kerja bersama ialah nod dalam komuniti yang boleh meningkatkan hubungan rangkaian sosial ahli kerana ia membenarkan orang daripada pelbagai lapisan masyarakat untuk berkumpul dan bekerja secara berdekatan. Peningkatan dalam rangkaian rangkaian sosial dikaitkan dengan peningkatan dalam modal sosial. Ramai orang yang mempunyai hubungan modal sosial yang kukuh menyumbang untuk mengukuhkan daya tahan keseluruhan komuniti. Banyak kajian di tempat kerja melihat kesan kebahagiaan pekerja dengan persekitaran kerja mereka terhadap tingkah laku seperti kerja berpasukan dan perkongsian maklumat. Kerana kerja bersama adalah fenomena baru-baru ini. Memahami kesan pembolehubah spatial ruang kerja bersama terhadap kepuasan ahli terhadap persekitaran dan aktiviti kerjasama yang berlaku di sana akan memberikan pengetahuan baharu dan membolehkan kemajuan dalam reka bentuk ruang kerja bersama. Tesis ini melihat kajian kes mengenai tipologi pejabat kerja bersama yang kepuasan terhadap ciri spatial dan aktiviti kolaboratif digunakan untuk mengukur kebahagiaan pengguna. Untuk mendapatkan pemahaman yang lebih mendalam tentang hasilnya, simulasi sintaks ruang akan dijalankan untuk menunjukkan ketersambungan dan integrasi dalam susun atur reka bentuk. Komponen ruang kerja bersama boleh menyumbang kepada kepuasan ahli. Keterbukaan, kedekatan dengan orang lain, fleksibiliti, privasi, gangguan dan kewilayahan semuanya diterokai sebagai elemen spatial. Aspek lain yang muncul sebagai penting kepada ahli semasa temu bual ialah karya seni, ketersediaan tumbuhan, pencahayaan dan pemandangan tingkap. Perubahan dalam kepuasan dengan suasana kolaboratif dalam ruang kerja bersama ditunjukkan dipengaruhi oleh keterbukaan, pelbagai tetapan dan gangguan pendengaran. Kepelbagaian disediakan oleh gabungan satu kawasan kerja terbuka utama, dua tempat kerja persendirian, dan alternatif untuk kedudukan dan ketinggian stesen kerja. Terdapat juga perbezaan berdasarkan jantina dan berasaskan peranan dalam kepuasan, menunjukkan bahawa persepsi ahli terhadap ruang dan pengalaman mereka di dalamnya dipengaruhi oleh peranan dan sifat peribadi mereka.

## LIST OF TABLES

<b>TABLE NO.</b>	<b>TITLE</b>	<b>PAGE</b>
Table 3.2.1	Six Constructs of Space Syntax Theory	24
Table. 5.1	Table Result VGA	52
Table. 5.2.1	Table Result VGA	54
Table. 5.2.2	Table Result VGA	58
Table. 5.2.3	Table Result VGA	61
Table. 5.2.4	Table Result VGA	64
Table. 5.3.1	Table Result VGA	67
Table. 5.3.2	Table Result VGA	72

## LIST OF FIGURES

FIGURE NO.	TITLE	PAGE
1.5.0	Flow Chart of Research Methodology	5
2.1.1	Allen Curve	9
3.4.1 (a)	Flow chat of study	26
3.4.1 (b).	Example to use space syntax theory	25
4.1 (a)	Location Plan of Common Ground Damansara	29
4.1 (b)	Damansara Heights Building	29
4.1.1 (a)	Floor layout zoning in Common Ground Damansara Heights	30
4.1.2	(a) Lounge; (b) In-house café	30
4.1.3.i	(a) Event space; (b) Discussion area.	31
4.1.3.ii	(a) Print and copy area; (b) Pantry	31
4.1.4.i	(a) Hot desks; (b) Fixed desk.	32
4.1.4.ii	(a) Private office; (b) Call booth.	32
4.1.4.iii	(a) Meeting room; (b) Board room	33
4.2(a)	Location Plan of YTL Headquarters Workplace	34
4.2(b)	YTL Building	35
4.2.1 ( a)	Floor Pan YTL Headquarters Office.	35
4.2.1 ( b)	Floor Pan YTL Headquarters Office.	36
4.2.1 ( c)	Floor Pan YTL Headquarters Office.	36
4.2.1 ( d)	Floor Pan YTL Headquarters Office.	37
4.2.1 ( e)	Section Diagram YTL Headquarters Office.	38
4.2.2(a)	Welcoming entrance, pavilion seating and lift lobby area at Ground level	39
4.2.2(b)	Lift Lobby Portal at Ground level.	39
4.2.3(a)	Level 8 Cafe area and spiral staircase	40
4.2.3 (b)	Level 8 and level 9 hot desk working area	41
4.2.4(a)	Level 8 and level 9 hot desk working area	41
4.3(a)	Location Plan of Zendesk Technology Office Building	43
4.3.1(a)	Level 1	44
4.3.1(b)	Level 2	45
4.3.2(a)	A large Staircase	46
4.3.2(b)	Communal Space	46
4.3.2(c)	Relax room	46
4.3.2(d)	Lobby	47
4.3.4(c)	Social interaction and collaborative area	49
5.1(a)	result VGA via connectivity	51
5.1(b)	result VGA via point first moment	51
5.1(c)	result VGA via point second moment	51
5.1(d)	scatter plot connectivity vs point first moment	52
5.1(e)	scatter plot connectivity vs point second moment	52
5.1(f)	result Based Agent Tools	53
5.1(g)	scatter plot connectivity vs gate counts	53



## LIST OF FIGURES

FIGURE NO.	TITLE	PAGE
5.2.1(a)	result VGA via connectivity	54
5.2.1 (b)	result VGA via point first moment	54
5.2.1 (c)	result VGA via point second	54
5.2.1(d)	scatter plot connectivity vs point first moment	55
5.2.1(e)	scatter plot connectivity vs point second moment	55
5.2.1(f)	result Based Agent Tools	56
5.2.1 (g)	scatter plot connectivity vs gate counts	56
5.2.2(a)	result VGA via connectivity	57
5.2.2 (b)	result VGA via point first moment	57
5.2.2 (c)	result VGA via point second	57
5.2.2(d)	scatter plot connectivity vs point first moment	58
5.2.2(e)	scatter plot connectivity vs point second moment	58
5.2.2(f)	result Based Agent Tools	59
5.2.2 (g)	scatter plot connectivity vs gate counts	59
5.2.3 (a)	result VGA via connectivity	60
5.2.3 (b)	result VGA via point first moment	60
5.2.3 (c)	result VGA via point second	60
5.2.3(d)	scatter plot connectivity vs point first moment	61
5.2.3(e)	scatter plot connectivity vs point second moment	61
5.2.3(f)	result Based Agent Tools	62
5.2.3 (g)	scatter plot connectivity vs gate counts	62
5.2.4 (a)	result VGA via connectivity	63
5.2.4 (b)	result VGA via point first moment	63
5.2.4 (c)	result VGA via point second	63
5.2.4(d)	scatter plot connectivity vs point first moment	64
5.2.4(e)	scatter plot connectivity vs point second moment	64
5.2.4(f)	result Based Agent Tools	65
5.2.4 (g)	scatter plot connectivity vs gate counts	65
5.3.1(a)	result VGA via connectivity	66
5.3.1 (b)	result VGA via point first moment	66
5.3.1 (c)	result VGA via point second	67
5.3.1(d)	scatter plot connectivity vs point first moment	68
5.3.1(e)	scatter plot connectivity vs point second moment	68
5.3.1(f)	result Based Agent Tools	69
5.3.1 (g)	scatter plot connectivity vs gate counts	69
5.3.2(a)	result VGA via connectivity	71
5.3.2 (b)	result VGA via point first moment	71
5.3.2 (c)	result VGA via point second	72
5.3.2(d)	scatter plot connectivity vs point first moment	73
5.3.2(e)	scatter plot connectivity vs point second moment	73
5.3.2(f)	result Based Agent Tools	74
5.3.2 (g)	scatter plot connectivity vs gate counts	74

## LIST OF ABBREVIATIONS

VGA Visual Graph Analysis

## LIST OF SYMBOLS

## **LIST OF APPENDICES**

## TABLE OF CONTENTS

	<b>TITLE</b>	<b>PAGE</b>
	<b>DECLARATION</b>	<b>i</b>
	<b>DEDICATION</b>	<b>ii</b>
	<b>ACKNOWLEDGEMENT</b>	<b>iii</b>
	<b>ABSTRACT</b>	<b>iv</b>
	<b>ABSTRAK</b>	<b>iii</b>
	<b>TABLE OF CONTENTS</b>	<b>xii</b>
	<b>LIST OF TABLES</b>	<b>vi</b>
	<b>LIST OF FIGURES</b>	<b>vii</b>
	<b>LIST OF ABBREVIATIONS</b>	<b>ix</b>
	<b>LIST OF SYMBOLS</b>	<b>x</b>
	<b>LIST OF APPENDICES</b>	<b>xi</b>
<b>CHAPTER 1</b>	<b>INTRODUCTION</b>	<b>1</b>
	1.1 Co-workplace	1-2
	1.2 Problem Statement	2-3
	1.3 Research Aim	3-4
	1.4 Research Question	4
	1.5 Research Objective	4
<b>CHAPTER 2</b>	<b>LITERATURE REVIEW</b>	<b>7</b>
	2.1 Introduction	7-8
	2.2 Building Typology Influence On Office Interior Layout	8-9
	2.3 Significant of Research	9
	2.3.1 Proximity	9-11
	2.3.2 Openness	11-12
	2.3.3 Variety and Flexibility	13
	2.3.4 Auditory Privacy and Distractions	13-14
	2.3.5 Personalization and Territoriality	15

2.3.6 Social Capital	16-17
2.3.7 Design Layout and connectivity	17-20
2.3.8 Movement and Interaction	20-23
<b>CHAPTER 3 RESEARCH METHODOLOGY</b>	<b>25</b>
3.1.0 Introduction	25
3.2.0 Proposed Method	25-256
3.3.0 Research Activities	26
3.4 Tool and Platform	26
3.4.1 Space Syntax Simulation	26-30
3.4.2 Visual Graph Analysis	30
3.5 Chapter Summary	31
<b>CHAPTER 4 CASE STUDY</b>	<b>33</b>
4.0 Introduction	33
4.1.0 Case Study 1 – Wisma UOA Damansara II Common Ground, Damansara Heights, Malaysia.	34
4.1.1 Data Analysis	35
4.1.2 Applicable Spaces for Social Interactivity	35
4.1.3 Applicable spaces for Common area networking and informal social interactivity	36
4.1.4 Applicable spaces for workers to work and collaborate	37-38
4.2.0 Case Study 2 – YTL Headquarters, Kuala Lumpur, Malaysia	39-40
4.2.1 Data Analysis	41-43
4.2.2 Applicable Spaces for Social Interactivity	44-45
4.2.3 Applicable spaces for Common area networking and informal social interactivity	45-46
4.2.4 Applicable spaces for workers to work and collaborate	46-47
4.3.0 Case Study 3– Zendesk Office Building, Singapore	49-50
4.3.1 Data Analysis	50-51

4.3.2	Socially connected districts	51-53
4.3.3	Private spaces and parks	53-54
4.3.4	Empowering flexible communities	54-55
<b>CHAPTER 5</b>	<b>FINDINGS &amp; DISCUSSIONS</b>	<b>77</b>
5.0	Introduction	77
5.1	Visual Graph Analysis (VGA) – CASE STUDY 1 and Agent Tool	58
5.1.1	Common Ground Floor	58-60
5.2.0	Visual Graph Analysis (VGA) – CASE STUDY 2 and Agent Tool	61
5.2.1	Ground floor	61-63
5.2.2	Level 8 <sup>th</sup>	64-66
5.2.3	Level 9 <sup>th</sup>	67-69
5.2.4	Level 10 <sup>th</sup>	70-72
5.3.0	Visual Graph Analysis (VGA) – CASE STUDY 3 and Agent Tool	73
5.3.1	Level 1 <sup>st</sup>	73-77
5.3.2	Level 2 <sup>nd</sup>	78-82
5.4.0	Discussion	83-84
5.4.1	Formal and informal social interaction in coworking spaces	84
5.4.2	Levels of interaction and openness of coworking spaces	85
<b>CHAPTER 6</b>	<b>Conclusion &amp; Recommendations</b>	<b>87-88</b>
<b>REFERENCES</b>		<b>89-93</b>

# CHAPTER 1

## INTRODUCTION

### 1.1 CO-WORKPLACE

The significance of the physical surroundings to personnel has lengthily been recounted with the aid of using studies at the workplace. Employee retention (Sarmiento, Laschinger, & Iwasiw, 2004), happiness (Kerry & James, 2003), health (Fairbrother & Warn, 2003), and retention rates (Laschinger, Finegan, Shamian, & Wilk, 2004) are all concept to be encouraged with the aid of using modifications to the bodily structure of the workplace (Heerwagen, Heubach, Montgomery, & Weimer, 1995). Although there's masses of studies on those effects, non-conventional paintings settings are hardly ever used to use them. Currently underutilised paintings environments consist of coworkspaces. The real placing wherein coworking happens is called a "coworkspace." The term "coworking" describes a shared concept in addition to a bodily workplace arrangement. In 1999, Bernie DeKoven coined the phrase to explain a kind of co-located, equal, but separate labour made feasible with the aid of using improvements in cell technology (Deskmag.com, 2015). Spiral Muse, in large part known as San Francisco's first proper coworking space, become set up with the aid of using Brad Neuberg (Deskmag.com, 2015).

Coworking areas are amassing locations in which unbiased contractors and businesses can also additionally proportion workplace device and bodily space. Since they do now no longer should cowl the complete value of renting, outfitting, lighting, and heating a pc even as but taking part in the blessings of getting a proper workplace, that is value-powerful for freelancers and small enterprises. The sharing economy, a developing trend, is philosophically rooted in coworking (Kenline, n.d.; Jackson, 2013). Along with the greater apparent economic blessings, coworking draws human beings due to the intangible blessings it offers, along with collaborative paintings, social interaction, and know-how sharing (Kelnlne n.d.; Capdevila, 2013).



The number of people engaging in self-employment and freelancing is growing. Due to the fact that people who work from home are effectively working alone, there is a loss of social infrastructure, including personal connection, support, and healthy competition. Their attempts to maintain a work-life balance typically fail. The network of individuals, ideas, skills, and support that knowledge workers depend on is also diminished as a result of the loss of personal connections. 2008's Giuliano Simonelli Individual job productivity and health are also impacted by daylighting. Focus, as well as mental health and well-being, are negatively impacted by poor lighting in the workplace. in 2018 (Pragya Agarwal). Space and the coworking culture are indissolubly related in Kenline's (n.d.) perspective. According to her, the areas are like "ecosystems," constrained both on the inside and out by the individuals who work there. She calls for greater research into the possibility that aspects of the coworking culture might be actively developed and replicated, both inside coworking spaces and in settings other than coworking. This desire is addressed by my study, which looks at what aspects of coworking culture and space use may be replicated.

A social interaction framework is composed of three current trends in the behaviour of independent knowledge workers. The first of these tendencies is the quick rise in "solo-self-employment" in highly skilled, quickly expanding, creative sectors. Independent knowledge workers is the term used to describe these players. The second trend is the quick growth of coworking spaces open-plan office settings where travelling knowledge workers pay a monthly fee to share workspaces. The third tendency is the widely made remark that most colleagues don't seem to need standard office facilities, despite the fact that most are independent knowledge workers who pay to utilise office space on a regular basis (Spinuzzi 2012, Gandini 2015).

## **1.2 PROBLEM STATEMENT**

Since the first office buildings was constructed in the 16th century, the nature of the worked environment had altered in reaction to global socioeconomic trends. The process of space planning and management was developing, impacting the design, planning, implementation, and maintenance of workplace solutions, which in turn was driven by improvements in technology, culture, and lifestyle changes. Businesses' workplace requirements would surely differ in terms of quantity, quality, location,

variety, and usefulness. The problem statement should be formulated before deciding on the study's objectives and objectives. Based on the current circumstances, I believe that has three big problems. The first problem is that office buildings lack spatial features and the social dimension's spatial organisation; a lack of social connection makes communication patterns at work less predictable. On the one hand, the comparatively constrained and hierarchical ways of discussing work have evolved into communication patterns in which employees must interact with a wide range of people in varied functional roles. (2006) Mahbub Rashid.

The second problem is a lack of opportunities, information, and expertise. Because they lack experience and fieldwork exposure, young entrepreneurs must compete with more seasoned ones for a place in the business world. As a result, it will significantly affect employee productivity. It needs knowledge, skills, talents, and information to perform adequately. Mahbub Rashid (2006) The third concern is workplace stress, which is a common issue in all sorts of employment. In other words, a bad office environment is one of the main elements that will affect how much stress a person experiences (Radhika Kapur, 2015).

### **1.3 RESEARCH AIM**

The research's objective, which is based on the aforementioned issue statement, is to identify the optimum co-working typology planning with a flexible workspace design that promotes pleasant social interaction inside the workplace and leads to a healthy workplace. To investigate the relation between physical space, social interactivity, and organizational of arrangement, this research aims is to express how co-workspaces' design features improve member satisfaction, social contact, and collaboration, therefore creating social interaction for both individuals and communities. In order to function as a community node, a co-working space has to draw in and maintain people who can engage in different types of social interactivity. Physical features including the variation and adaptability of the area, openness, access to other members, distractions, and a sense of territoriality in the workspace are all likely to support such partnerships. If there is a nice atmosphere and collaboration, members will strengthen their relationships with one another and, therefore, with their

co-workers. contrasting the co-working typologies used in a few chosen case studies in order to investigate connection and integration using a VGA space syntax simulation.

I will deductively examine how spatial factors affect interpersonal communication and teamwork. I anticipate that there will be variations in how satisfied people are with diversity and how supportive they perceive collaborative activities to be based on variations in spatial elements in the chosen case study of co-workspaces.

#### **1.4 RESEARCH QUESTION**

The contact that inspires a coordinated workplace is the topic of our study. It focuses on office employees who work for the same companies. Below is a list of the research queries:

- i. How does configuration of spatial factor contribute through to the Co-working environment?
- ii. What is significant of design planning for co-working?
- iii. How can spatial qualities enhance social interaction and work efficiency in working spaces?

#### **1.5 RESEARCH OBJECTIVE**

We have studied comparable office activities and work in various office concepts as well as dissimilar activities and work in various office concepts in order to answer our research concerns. The following is a list of the study's three main goals:

- i. To study the office typologies which affecting spatial factor on workplaces.
- ii. To determine the effectiveness of spatial factor on workplaces for Co-working office.
- iii. To determine the best spatial factors implementation for co-workspaces and collaborative activity.

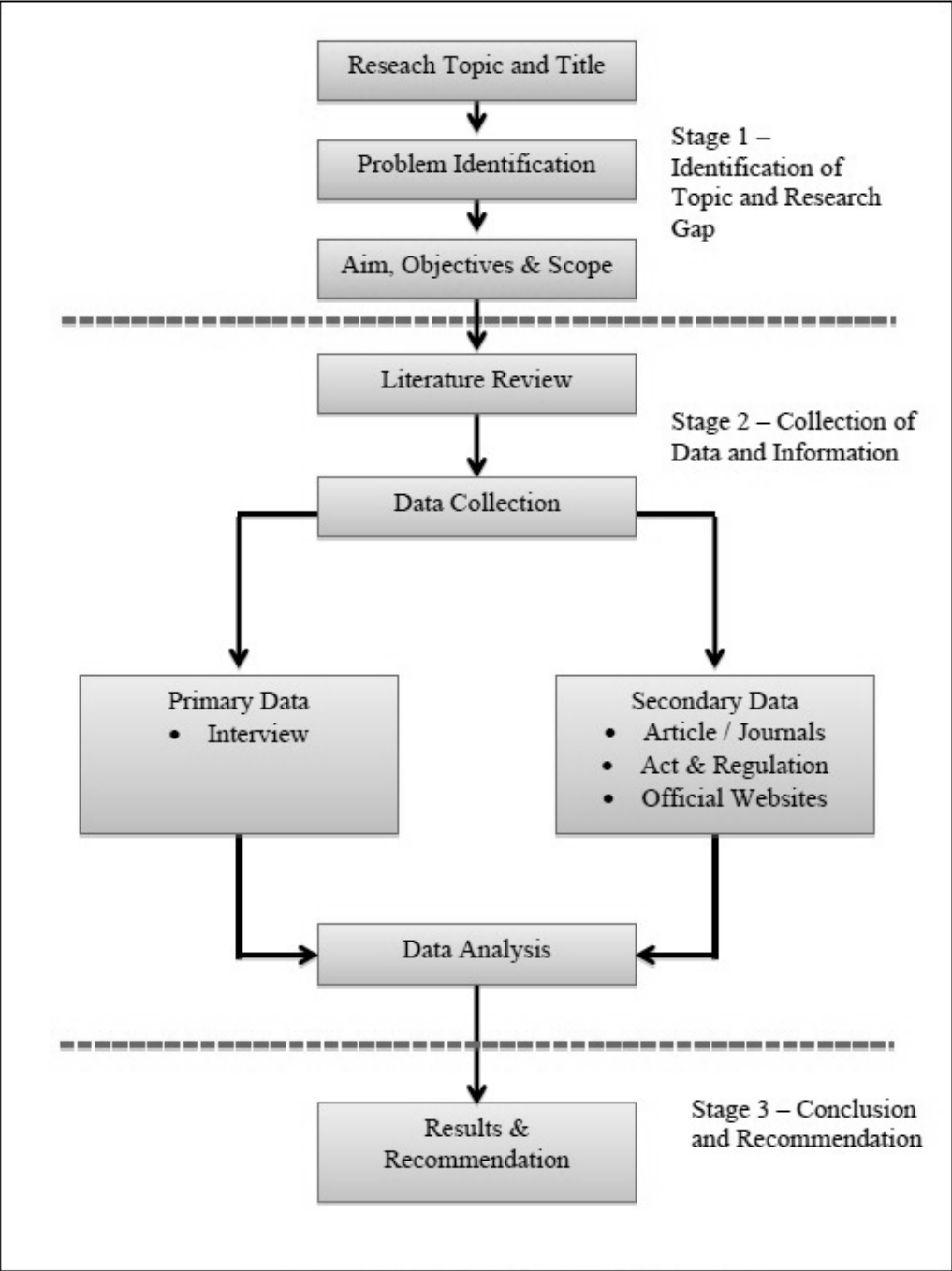


Figure 1.5 : Flow Chart of Research Methodology

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