INNOVATIVE WORKPLACE DESIGN IN JAKARTA

A COMPARATIVE ANALYSIS OF CASE STUDIES IN JAKARTA (INDONESIA) & THE NETHERLANDS

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ABSTRACT

The concept of new ways of working, the new office and innovative office has been around for decades (Appelbaum & Batt, 1994; Brill, Margulis, & Konar E., 1984; Duffy, 1997; Krismantari, 2012; Chaiwat Riratanaphong & van der Voordt, 2011; Senge, Schein, de Geus, & Gallwey, 1998; van der Voordt, 2003; van Meel, 2000). Duffy (1997) discussed about the characteristics of the future office, which will create a combination between adding value towards the organization and driving down occupancy costs. Furthermore, the contribution of the development of technology and ICT also has created more possibilities in flexible working. Communication and information distribution became flatter, mobile working was made possible (Duffy, 1997; Gensler Architects, 2008; Martens, 2011; van der Voordt, 2003).

These ideas and contribution from the experts about office design as an added value towards organizations were started from the western culture, namely the Northern European and North American countries. Subsequently, these ideas are also transferred to Asian countries, including Indonesia as the focus area of this research. However, few experts or organizations have investigated this issue of innovative office design in Asia, especially in Indonesia. That is why it is important to investigate this issue in Indonesia, to find the difference of the products and perceptions towards innovative office design in Indonesia and the western culture. Since Indonesian organizations tend to have different working culture, the objective of the research is to give advices to companies in Indonesia about the perception and preferences of their employees.

The term innovative workplace itself is a very subject dependent concept. According to van der Voordt (2003), it is the concept of innovative layout and design of the workplace, which has multiple objectives towards the improvement of organizations. This is where this research will be based on, the product and process towards organizations improvement, through workplace design as one of the organizational tools. Furthermore, the research will investigate the correlation between perception towards office design and performance of the company and employees in Indonesia.

To explain the adaptation of innovative workplace from the western culture to Jakarta, the Netherlands would be the country of comparison. The country already has various existing research on the impacts of innovative workplace (Batenburg & van der Voordt, 2008; Brunia, 2008; Chaiwat Riratanaphong, 2009; van der Voordt, 2003), which could be used for more insights. Case studies and interviews in both Jakarta and the Netherlands will be observed and compared to gain descriptive information about the products and organization perspectives. Afterwards, surveys towards the employees (only in Jakarta) will elaborate on employees' perception in Jakarta. Practical issues such as time and accessibilities to the case studies are the main limitation from this research.

This research will explain the impact office design in Jakarta, Indonesia, to the performance perception of employees and the organization. It will deliberately explore the correlation of cultural background, perceptions/ preferences and the office design itself.

FOREWORD

This proposal is written to introduce and plan the research for a graduation thesis of Real Estate and Housing master's track, faculty of Architecture, TU Delft. The following abstracts and pages will explain the research deliberately, starting from the objectives, problem statement, hypotheses, literature framework and research framework.

With the current growing economy in Asian countries, including Indonesia, the topic of innovative workplace and the possibility to enhance corporate value through better real estate management will be a very attractive issue for global corporates. Various flexible offices have been introduced in Indonesia. However, publication and research in this field is still rare in the country. Therefore this idea came up, to conduct a comparative study from the Netherlands, the country, which had done multiple researches on this theme. Interviews, case studies and survey will be conducted during this research to measure the objective gained by the organizations and the match between the companies' objectives with employees' preferences.

This proposal is the second development of a series of presentations for the graduation thesis in Real Estate and Housing masters track, TU Delft faculty of Architecture. The information shared in this proposal will be used to explain the aims and objectives of the research, including the planning and progress of the process until January 2013. Multiple sources and literature have been used during the making of this proposal.

Enjoy reading!

SUMMARY

The idea of choosing the innovative workplace design in Jakarta as a topic was based on two problems:

1. To match two elements of:
   - Improved performance in productivity (from the organization's side)
   - Employees' satisfaction and perceptions towards their office and productivity

   Of organizations operating in Jakarta, Indonesia
2. To answer the issue of publication scarcity within this field in Indonesia

To match these two factors towards improvement of the organizations, several variables will be measured with indicators, with literature studies, case studies and surveys as methods of data collection and research as its own entity. The research will focus more on the perceptions of the products, with extra input about the process, since both are one entity.

In the end, the intended result(s) of this research will be **the critical success factors of innovative workplace in Jakarta, both process and product wise,** which is also the main research question. To support this question, several sub-questions were constructed:

1. What can be found in the literature about the definition and implementation of innovative workplace?
2. What can be found in the literature about history and transformation of innovative workplace?
3. What are the influence of ones culture towards their perception on their workplace?
4. What are the influences of environmental psychology towards ones perception on their workplace?
5. How do the workers in Jakarta perceive their workplace compare to the Netherlands?

The previous sub-questions are also based on the four domains, which constructed the theoretical framework for this research, namely:

1. Innovative workplace
   The definition of innovative workplace was constructed from theories from different literatures (Brunia, 2008; Duffy, 1997; Gensler Architects, 2008; Martens, 2011; Chaiwat Riratanaphong, 2006, 2009; van der Voordt, 2003; van Meel, Martens, & van Ree, 2010) and interview with property consultant and researchers in office design. It was believed that the new office first emerged to drive the occupancy costs of an organization, but it shifted towards the adding value towards the organization.
2. (Office) design
   Office design has transformed nowadays towards a flatter and leaner hierarchy. The concern is no longer the process itself, but a combination of people, process and performance. According to different researches and publications (Brill, et al., 1984; El-Zeiny, 2012; Franz.G, 2006; Hua, Loftness, Kraut, & Powell, 2010; Martens, 2011; Vischer, 2007; Wang & Boukberi, 2010), the physical characteristics of a workplace could contribute positively or negatively to one's productivity.
3. Culture in the workplace
   Two types of cultures are mentioned in this domain. The first one is the organizational culture, and the second one is the national culture. The indexes from Hofstede and Minkov (2010) were used to explain the cultural differences betwen Indonesia and the

Netherlands and the possibilities of their preferences and behaviour towards the physical workplace.

4. Environmental psychology
    The term environmental psychology was described by using the idea from Vischer (2007). Five indicators were revealed through the literature study:
    • Territoriality
    • Privacy
    • Comfort
    • Status
    • Control

At the end of the literature studies three hypotheses were concluded:

1. *"Compare to the Netherlands, the settings of workplaces in Jakarta will tend to be more hierarchical, with more team space available, and less focus will be driven towards employees satisfaction."*
    The case study of the empirical part of this research will be done to check this hypothesis. The ratio of the workspace area, compare to the numbers of employees and the team space available will be one way to check this. Another way is through interview with the management of the organizations, concerning the decision making process towards their current workplaces.

2. *"Employees in Jakarta will prefer a more predictable settings for their workplace, for instance having their own permanent desk with more personalization."*

Questionnaire towards the employees will be one way to check this hypothesis. Another way is through observation during the case studies and small interview with the employees.

3. *"Organizations are aware on the importance of the physical workplace, however, there is no evidence of real bottom-up approach, which starts not from organization's objectives, but from the perceptions and preferences of the employees."*
    This hypothesis will be proven by interview with the organizations, to recognize their process towards the decision making of their current workplace. Moreover, the questionnaire towards the employees will also result to the kind of products that are preferred by the employees in Jakarta.

Each field will complement each other in supporting the process and furthermore the product of innovative workplace. Inputs will also be made from the context of Jakarta and the comparison cases in the Netherlands, to answer the research question. Subsequently, other methods besides literature study will be conducted:

1. Case studies and key person interview
    The idea of having case studies and interviews is to check the product and discover the objectives of the organizations (the top down approaches of the companies).

2. Discrete choice analysis
    In order to complement the answer of the employees' preferences, this method will by using the vignettes, in order to detach them from past experiences. Using the vignette will give the neutral picture of the attributes of the physical workplace, which influence their productivity.

REFLECTION

In adamant, this research will bring new insights towards the productivity gained and the implementation of companies' objectives in the design of a physical workplace. There is no one best formulation in creating a successful innovative workplace. By investigating the differences between two cultures and their implementations, it will be clearer to see the difference. Moreover, the preferences and perceptions of the employees are important in answering the match between companies' objectives and their expectations.

This research will be useful for companies willing to investigate the productivity of their current workplace, and others who are willing to expand their business in Jakarta. By engaging the expectations of the human resources from their physical workplace, companies could create better strategies in the field of real estate management. Additionally, the strategy of the physical workplace should be consistent with other corporate strategies such as incentives, training, recognition, task rotation, autonomy in job, and so forth (Balkin, Tremblay, & Westerman, 2001; Dul, Ceylan, & Jaspers, 2011).

Jakarta as an area of research is also an interesting market for these types of research nowadays, due to the high demand of office space and the developing economy issue in Indonesia. Therefore, it would be important to add publication in the field of innovative workplace for the organizations operating in this area.

CONTENT

Chapter 1: Introduction

PERSONAL MOTIVATION

Innovative workplace design never occurs to me as the main driver in the office industry. However, it intrigued me when I read the article "Driving Effective Workplace in Asia" (Jones Lang Lasalle, 2012a). According to the report, the trend of innovative workplace is also occurring in Asia due to the development of technology and the company cultures developed from various multinational companies. Countries like Japan, China and Singapore are also starting to change their ways of working and changing their workspaces design to open settings, for instance. Although the first intention of these changes is to improve company's productivity and the possibility of costs reduction (Duffy, 1997), there are some barriers in the culture that hamper the objectives of this method. The concept of innovative workplace brought by the western culture may not always be possible to be transplanted directly from west to east. Seventy per cents (70%) of the change initiatives including on workplace fail (Jones Lang Lasalle, 2012a).

The term innovative workplace itself is a very ambiguous or subject dependent concept. It could be different for every organization in every country. In the western culture itself, this term has been a discussion together with the flexible workplace, new ways of working, and so forth (Duffy, 1997; van der Voordt, 2003). It could be the concept of the innovative layout and design of the workplace, with the objective innovation of its users. Moreover, in this research, the objective will be the main focus without neglecting the first concept, where innovative workplace is created to enhance innovation and furthermore, increase *employee's productivity*. Thus, the physical condition of innovative workplace could be translated into any different forms.

I chose to see this topic through the perspective of a local. Therefore, I chose Indonesia as the first country of my research, with Jakarta as the main location due to its high supply and demand of office space (Colliers International, 2012b). The country is harvesting an upward economic growth of 6.1% and 6.4% respectively in 2010 and 2011 (IndexMundi, 2012). The phenomenon of this high new investments and expansion of major companies, leads to the higher demand of office space in the city, which linked to the more supply provided by private investors (Colliers International, 2012a, 2012b). As the rents in Jakarta CBD are going up (Jones Lang Lasalle, 2012b), organizations need to think more strategically in accommodating their activities. Therefore, this research could contribute to those companies willing to invest and doing business in Indonesia, or trying to strengthen their workforce through organizational changes, where physical workplace design could also play an important role both to increase efficiency and effectiveness of their activities and budget. Furthermore, there are still scarce resources and publications related to innovative workplace in Jakarta.

The Netherlands is chosen as the country for comparison due to the existing various research on the impacts of innovative workplace (Batenburg & van der Voordt, 2008; Brunia, 2008; Chaiwat Riratanaphong, 2009; van der Voordt, 2003), which could be used for more insights of previous works. This comparison will be first conducted by literature studies, then through short case studies. The case studies in the Netherlands will comprise of direct observations and interview with key person of the organizations.

PROBLEM STATEMENT

"The formulation of a problem is often more essential than its solution…"
(Albert Einstein)

Leaders create culture and sometimes have to also change the culture in their organizations (Schein, 1992). In majority, change in the physical workplace environment is in line with the change on organizational structure. It is noted that the success of alternative offices is determined by the underlying strategy and the method of implementation in particular (van der Voordt, 2003). However, according to Jones Lang Lasalle Asia Pacific (2012a), 70% of the attempt towards organizational change, including towards the workplace change, is failing. In this case, the term successful refers to the matching results with initial objectives of the company with their choices of office arrangement. There are different possibilities of companies' objectives concerning their workplace (van der Voordt, 2003) such as:

- Improved performance, including greater productivity
- Better communication and cooperation
- Facility support and control of change processes
- Greater employee satisfaction
- More efficient use of space
- Image improvement
- Serving as a role model
- Acquirement of an insights into trends
- Acquirement of experience with new concepts
- Prevention of the need to move by using space more efficiently

Specifically, to create the successful case measurement, this research focuses more on the two objectives:

- Improved performance in productivity (from the organization's side)
- Employees' satisfaction and perceptions towards their office and productivity

To match these two factors towards improvement of the organizations, several variables will be measured with indicators, with literature studies, case studies and surveys as methods of data collection and research as its own entity.

Subsequently, concerning the selection of the research topic, publication in the field of innovative office or new ways of working in Indonesia is still scarce. Organizations seem to have less awareness towards the issue of workplace innovation and the impacts on their employees. In Asia, companies tend to implement the workplace change from a top-down approach (based on an interview with researcher on office design based in Europe). However, the products seen so far such as hotelling or hot-desking system, open layout space, et cetera are quite similar compare to the others in the western countries. The process, perceptions, preferences and behaviour towards the products on the other hand, may differ (concluded from an interview with an Asia-Pacific property consultant based in Singapore).

In summary, there is the need to create an investigation on the implementations of the innovative workplace in Jakarta due to the scarcity of previous research in this field in that area. Additionally, a crosscheck between the bottom-up approach of workplace change from the employees' perspectives and the top-down strategies of the organizations will be needed to see whether the approaches were successful or not.

RESEARCH AIM & OBJECTIVES

The major aim of this research is to find the particular needs of workers in Jakarta, based on their preferences. The research will focus more on the perceptions of the products, with extra input about the process, since both are one entity. A product would not exist without a process occurring beforehand (see figure 2: theoretical framework). These preferences will create the possibilities of approaches for the companies willing to change their office arrangements to aim certain objectives. Especially in Indonesia as a developing country, which is seen as a very promising market for real estate industry at the moment (based on an interview with property consultant based in Singapore). Therefore, these companies would know what types of process and design approaches, which are appropriate for their intended objectives and strategies. The possibilities will be explained through the combination of variables and indicators explained further in this proposal (see figure 1: research design).

In the end, the intended result(s) of this research will be **the critical success factors of innovative workplace in Jakarta, both process and product wise.**

RESEARCH TARGET GROUP

The main objective of this research is to fulfil the final thesis obligation to graduate from TU Delft Architecture faculty, master track Real Estate and Housing. Moreover, the side objective is to learn how to conduct a research and encounter professionals from the real estate industry, also from different fields of expertise, where the research will be conducted. As to the problem statement itself, the objective is to prove whether innovative workplace could work in Jakarta, and the distinctive characteristics of the workplaces in Jakarta.

MAIN RESEARCH QUESTION

As explained in the research aims and objectives, the research question will fully support the intended end result. Departing from the debate of a successful workplace or office design, and the idea of innovative office in Jakarta, the research question emerge:

"What are the critical success factors towards an innovative workplace in Jakarta?"

To elaborate more on the question, four different domains are structured for the theoretical framework (figure 2). These four domains were considered to complement each domain, in creating the logic of innovative workplace and its influencing factors such as culture in the workplace, environmental psychology, and designing an office itself.

Some sub-questions were generated further to answer more issues in detail:

1. **What can be found in the literature about the definition and implementation of innovative workplace?**

   (Will be answered in chapter 1 of the final report through literature studies and interviews with professionals)
   a. What is innovative workplace?

b. What are the influences of innovative workplace towards organizations' performance?
c. What are the examples of innovative workplace?

2. What can be found in the literature about history and transformation of office design?

(Will be answered on chapter 3 of the final report through literature studies and interviews with professionals)
a. What is the history behind the new office?
b. How does office design transform from a more conventional type towards more flexible or innovative type of design?
c. How does office design influence workers' productivity?

3. What are the influence of ones culture towards their perception on their workplace?

(Will be answered on chapter 4 and 7 of the final report through literature studies and case studies)
a. What are the definitions of culture, organizational culture and national culture?
b. What are the differences between the Netherlands and Jakarta concerning their culture in general?
c. What is environmental psychology?
d. How do culture influence ones perception towards their workplace?

4. What are the influences of environmental psychology towards ones perception on their workplace?

(Will be answered on chapter 5 and 7 of the final report through literature studies and case studies)
a. What is environmental psychology?
b. How does environmental psychology influence ones perception towards their workplace?
c. What are the differences between the Netherlands and Jakarta concerning user behaviours in offices?

5. How do the workers in Jakarta perceive their workplace compare to the Netherlands?

(Will be answered on chapter 7 and 8 through case studies, interviews and questionnaires)
a. What are the perceptions of the workers in the case studies in Jakarta towards innovative workplace?
b. How do the workers in Jakarta's case studies perceive their current workplaces?
c. What are the preferences of workers in the Jakarta's case studies concerning workplace design?
d. What are the differences between the Netherlands and Jakarta concerning decision-making process in organizational changes, especially in office design?
e. What lessons can be learned from the Netherlands in implementing their workplace?

6. How can we optimize the benefits of innovative office in Jakarta?

(Will be answered on chapter 9 through the combination of literature studies, case studies, interviews and questionnaires)

    a. What are the major objectives on the workplace change found within the organizations?

    b. How is the process towards achieved companies' objectives and the product of their workplaces?

    c. What are the physical characteristics of the successful products of innovative workplace in Jakarta?

In adamant, the sub-questions are structured to support the research to integrate the conclusion of critical success factors of innovative workplace in Jakarta. Subsequently, hypotheses were also created based on the findings from literature studies, which can be seen further on this proposal.

Figure 1 – RESEARCH DESIGN

CULTURE IN THE WORKPLACE

Trompenaars, F., & Hampden-Turner, C. (1997)
Schein, E. H. (1992)
Hofstede, G., Hofstede, G. J., & Minkov, M. (2010)

INNOVATIVE WORKPLACE

Balkin, D. B., Tremblay, M., & Westerman, J. (2001)
Senge, P. M., Schein, E., de Geus, A., & Gallwey, T. (1998)
van der Voordt, D. J. M. (2003)

(OFFICE) DESIGN

van Meel, J., Martens, Y., & van Ree, H. J. (2010)
van der Voordt, D. J. M., & van Wegen, H. B. (2005)
Gensler Architects. (2008)

ENVIRONMENTAL PSYCHOLOGY

Vischer, J. C. (2007)
Martens, Y. (2011)
Franz.G. (2006)

THE PROCESS TOWARDS INNOVATIVE WORKPLACE

Balkin, D. B., Tremblay, M., & Westerman, J. (2001)
Senge, P. M., Schein, E., de Geus, A., & Gallwey, T. (1998)
van Meel, J., Martens, Y., & van Ree, H. J. (2010)
Findings from empirical part

THE PRODUCTS OF INNOVATIVE WORKPLACE

van der Voordt, D. J. M. (2003)
Findings from empirical part

HYPOTHESIS, VARIABLES & INDICATORS
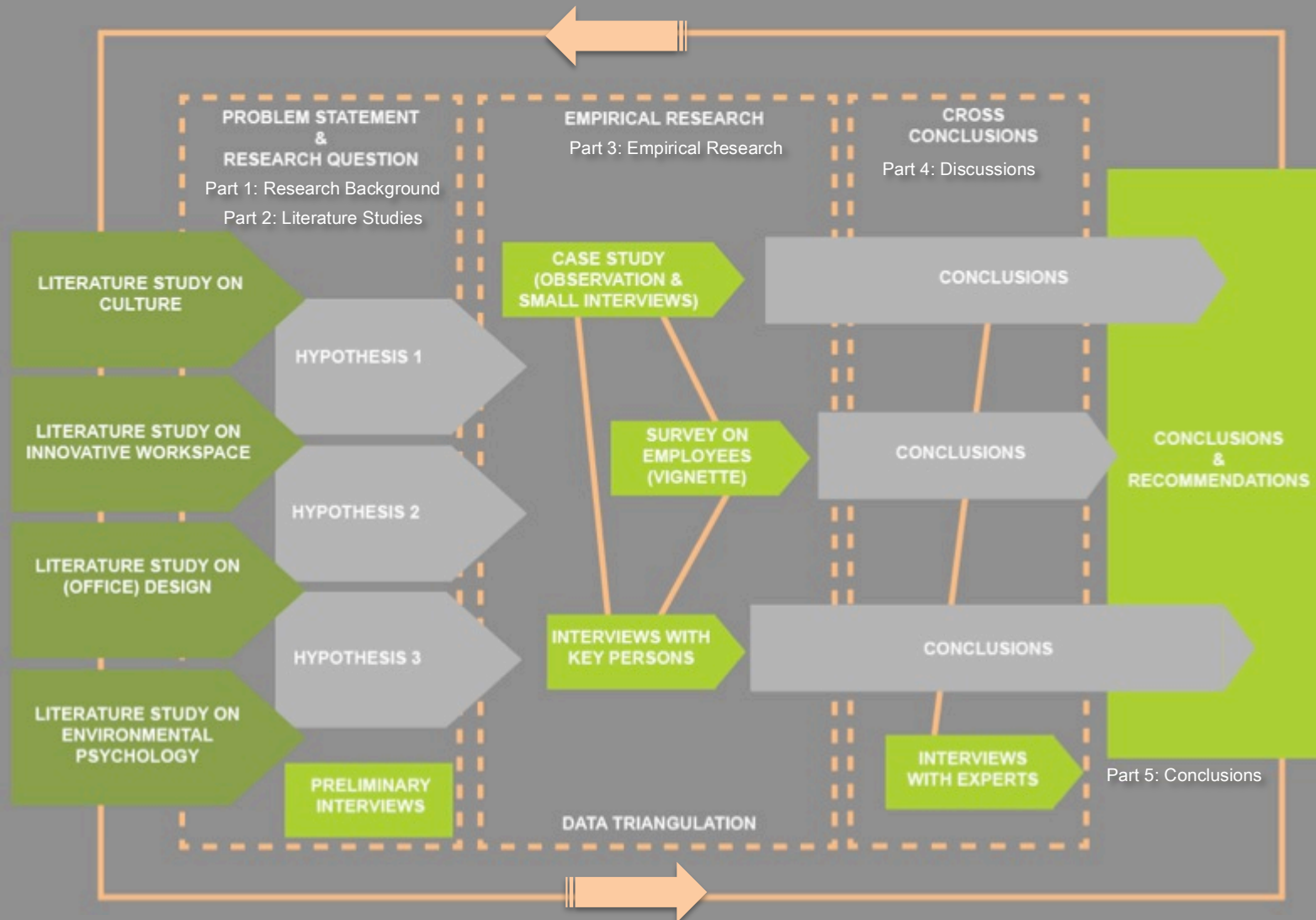
Figure 2 – THEORETICAL FRAMEWORK

Chapter 2: Research Design & Theoretical Framework

As seen in figure 1, the research design started from literature study, followed by a multiple case study, and survey. Some sub-questions discussed in chapter 1 are also discussed and answered implicitly within the following chapter.

1. Literature study

Literature study will always be one of the fundamental resources in research methodology. In this specific research, the literatures are emerged from four different cores as seen in figure 2:

Sub-question 1 & 2: Innovative workplace

Senge et al (1998) discussed that organization members should perceive workplace as a living system. They reasoned that they should be able to conduct a knowledge creating system, consists of capacity building, research and practical knowledge.

Figure 3 – The new workplace concept (Senge, et al., 1998)

Balkin et al (2001) distinguished 10 managerial innovation in the workplace:

- Team innovation (self-managed work teams and problem solving teams)
- Organization restructuring (job design change, work method change, organization design change)
- Work schedule innovation (compressed workweeks, flexi time, job sharing arrangements, and voluntary reduction in work hours)
- Skill mix change (re-training cross-training and skill-upgrading),
- Bargaining process innovation (improvements in bargaining effectiveness such as continuous bargaining, mutual gains bargaining and the use of interest arbitration for solving conflicts),
- Empowerment innovation (improvements in employee rights and entitlements such as accommodation for disabilities and increased attention to reducing barriers for women to move into traditional male jobs),
- Individual pay innovation (individual performance bonuses and skill-based pay),
- Team pay innovation (team bonuses),
- Organization pay innovation (gain sharing, profit sharing and employee stock ownership plans) and
- Benefits pay innovation (cafeteria benefit plan, child care reimbursements, legal services, unpaid extended vacation leave options, and domestic partner benefits).

However, in the real estate management industry, the focus is on innovation of the physical workplace characteristics (van der Voordt, 2003), which will be discussed on this research. The physical interventions of the offices such as open job-oriented or organization-oriented housing, which compensates flexible workspace as hot-desking, hoteling and other

terms of innovative workplace-design. But as stated before, the main focus will be the enhancement of innovation in the workplace, which leads to productivity increase, also other costs and benefits of innovative workplace (van der Voordt, 2003). Its physical form could be different for each organization, depending on organizational culture and local context.

The idea of physical workplace change was actually driven by two contexts (Duffy, 1997):
- Adding value to the company
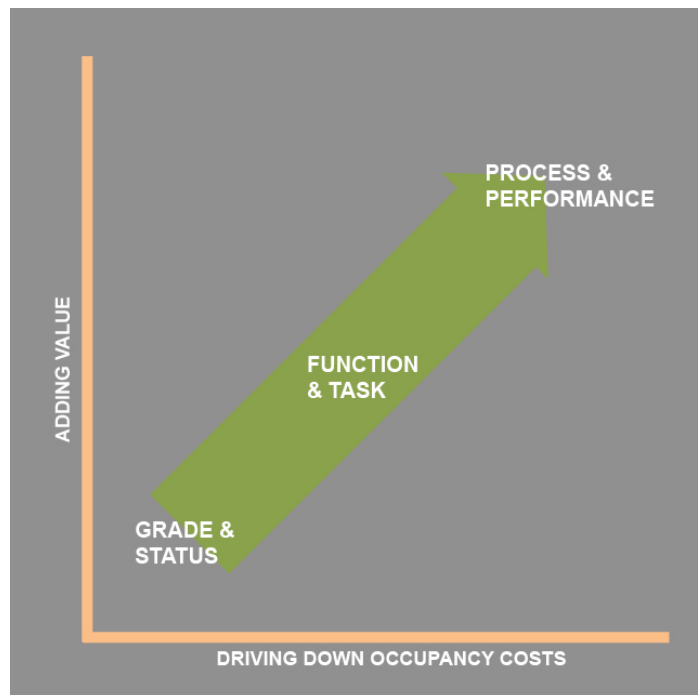- Driving down occupancy costs

Figure 4 – the new office concept by Duffy (1997)

Based on a recent interview with a consultant and researcher of office design working in Europe, innovative office could also be described as a way to enhance the innovation of a company. This could be one of the benefits or objectives of an innovative office. Enhancing innovations in the workplace could be then measured through performance of the companies and employees. In accordance with Duffy's point of view, Martens (2011) mentioned that physical workplace in general could contribute to three aspects:
- Performance
- Process
- People
of the organization by:
- Cost saving, risk control, environmental sustainability and contributing to the corporate image towards customers and employees
- Supporting work processes and communications
- Supporting or changing organisational culture, improving employee satisfaction, attraction and retention of staff, supporting and providing organizational flexibility

The three aspects of performance, process and people are all affected by the positive or negative contribution of the physical workplace. The organization and its people are influencing the process, which then would create the performance such as new and valuable ideas, products and services. Figure 5 could elucidate more on this idea, where the context surrounding the process could be the culture, which is one of the four domains, structuring the theoretical framework of this research.

Figure 5–Relation between physical workplace and performance. Adapted from: Martens (2011)

Duffy (1997) in the book The New Office, also described the characteristics of new offices:

- Much greater attention to the economic importance of better use of time
- Impatience with boundaries, to improve communications between departments and specialists
- Less hierarchy
- A tendency towards smaller, more rapidly changing organisational units
- The importance of group activity
- The obsolescence of clerks and clerical ways
- Total confidence in the creative use of IT
- A new flexibility

Conclusion on Innovative workplace:

On one recent interview with a property consultant working in Asia Pacific region, it was mentioned that the first trend of enhancing workplace efficiency started during the economic crisis, where global corporates were forced to tighten their budget. This idea is in line with Duffy's idea about the new office. However, this trend tends to shift at this moment. Global corporates are focussing more towards the added value of the company through enhancing the quality of a workplace as one of their organizational strategies. Especially in countries as Indonesia, where high numbers of new investments are entering the developing market. These new investments are driving companies to be more competitive, where workplace improvements could be one way in doing this. Occupancy costs are no longer the main concern, although efficiency still is.

This competitiveness among corporates, where each company try to attract potential employees and retain their current employees, is what they call by war of talent. This is in line with one of the main benefits that could be given by the physical workplace by Marten (2011).

Nevertheless, amid the discussions and debate about what innovative office is, the main purpose is to create a better working environment to increase employees' satisfaction, and improving productivity as the end result. Therefore, there is no restriction or strict rules on the physical boundaries of an innovative workplace. Different organizations implement different strategies, which suit their objectives the most.

Sub-question 2: (Office) design

Office design changes over time (Gensler Architects, 2008). During the period of 1980s, office layouts tend to follow only the linear process of an organization. Uniformity felt stronger in the design characteristics. Status is still reflected by the workspace, which makes the workplace hierarchical both in the Western and Eastern culture. Cubicle office which was first introduced in the US (van Meel, 2000) was still popular.

In the literature concerning environmental psychology of the workplace, although not particularly for the innovative workplace, Vischer (2007) listed some variables concerning the important aspects in a workplace such as user's ergonomic, natural and artificial lighting, layout of the office plan, and noise.

Figure 6 – Office transformation (Gensler Architects, 2008)

In the 1990s, technology development started to play a role in office design. The working environment then focused on digital tools, the processes were more dynamic and networked than linear. Hierarchy is fading in the workplace, and the design is more flexible, adaptable to change. Companies also became more aware in creating amenities, which focus on attracting talent. Hoteling (non territorial office space, where each employee could reserve the space on first come first serve basis) was also introduced to enable mobility. Today, technology is already integrated with every aspect of the working process, while the people create the strategic competitive advantage. It could be stated as a more holistic approach of workplace design.

Two years after Gensler's publication of workplace design in the US, van Meel et al (2010) also renowned the crucial decisions that have to be made concerning organization's objectives when creating a workplace environment:

- Location: whether employees are obligated to work in the office, or have freedoms to work elsewhere.
- Use: whether employees get their own personal workstation, or do they have to share space.
- Layout: whether the office layout is open or enclosed. According to Vischer (2007), several studies proved that office workers are uncomfortable in open plan configurations and prefer private enclosed workspace.
- Appearance: whether the ambience of the space is neutral or expressive (visually arresting)
- Filing: whether the work is more digitally recorded (paperless) or on paper
- Standardization: whether the office concept is use for the whole companies within departments, and/or branches.

These variables will be considered to measure the process and products of the case studies in Jakarta.

Several publications also focused on the influence of office design towards employee's productivity (Dul, et al., 2011; Hua, et al., 2010; Martens, 2011). It was said that certain features of the physical workplace could have positive effects on creative task performance and mention features such as the presence of plants, a non-crowded workspace, and direct window view. Moreover, the combination of several physical features could also create benefits for the workers. It was described in several publications (Dul, et al., 2011; Martens, 2011), that these aspects could

create positive or negative impacts towards one's creativity, which is closely related to innovation.
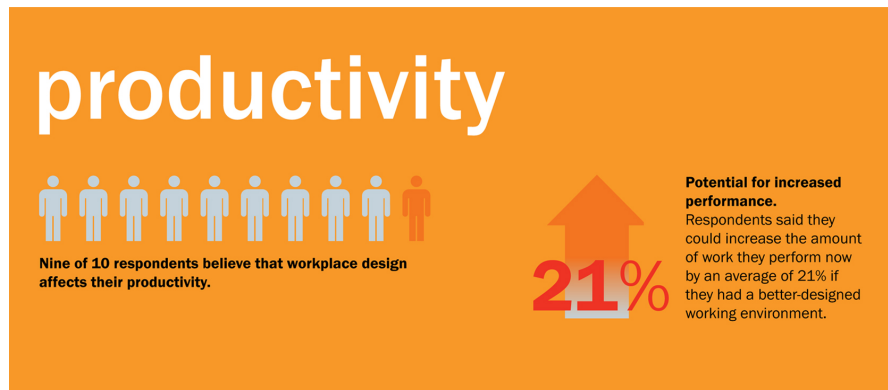

Figure 6 – Source: Gensler Architects (2008)

Again in their publication, Dul et al (2011) listed a number of elements of the physical work environment that are possibly related to creativity:

No	Element	Description
1	Furniture	Furniture that are placed in the workplace
2	Indoor plants/ flowers	Plants that are placed in the workplace
3	Calming colours	Colours that provide a relaxing experience (e.g. blue, green, blue violet)
4	Inspiring colours	Colours that provide stimulating experience (e.g. yellow, orange, pink, red, red violet)
5	Privacy	The possibility of being secluded from the presence or view of others
6	Window view to nature	Having visual access from the work environment to the outer natural environment (e.g. trees, plants)
7	Any window view	Having visual access from work environment to any outer environment
8	Quantity of light	The amount of light in the work environment
9	Daylight	The light coming from the sun into the work environment
10	Indoor physical climate	The temperature, velocity, humidity, and composition of the air in the work environment
11	Positive sound	Positive sounds (e.g. music, silence, absence of noise)
12	Positive smell	Positive odors (e.g. fresh air, absence of bad smell)

These elements above would contribute furthermore to the long list attributes for the discrete choice analysis for the research methodology.

Other aspects that could improve the productivity, is collaboration. The layout of the workspace could actively contribute to occupant's perception of collaboration environment (Hua, et al., 2010). Openness is one of the characteristics, which could explain workplace layout characteristics. It refers to the ratio of total square meters of the office to the total length of the interior walls and partitions. Another spatial characteristics that should be considered, is accessibility. This refers to the extent to which an employee's individual workspace is accessible to the external intrusion of others. However, this characteristic is often described by only the existence of doors within a room. Therefore, in the application of space syntax theories and techniques, which was originally developed for street

and neighborhood design, we add visibility to this picture. The combination of these three elements: accessibility, openness and visibility, could be a powerful tool to evaluate an existing layout. According to Hua et al (Hua, et al., 2010), the layout of various collaborative spaces also directly impacts office workers' perception s of how well the work environment supports collaboration.
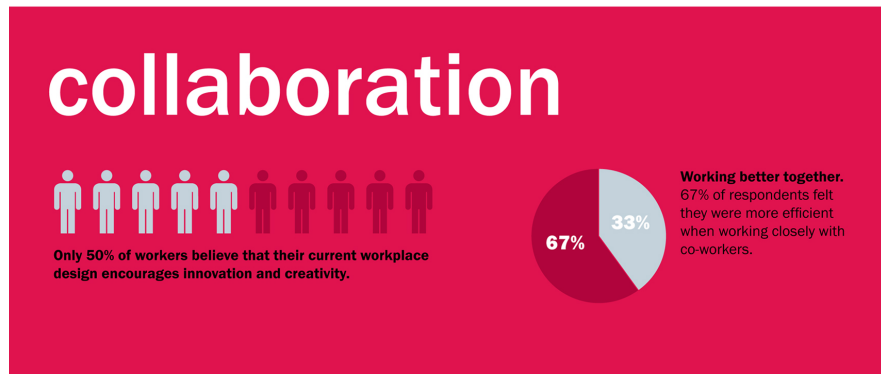

Figure 7 - Source: Gensler Architects (2008)

Conclusion on (office) Design:

The transformation of office design described by Gensler Architects (2008) is actually in line with the new office concept by Duffy (1997) discussed before in the sub-question of innovative workplace. Office nowadays had grown towards leaner and flatter hierarchies. The focus is not only towards

the process, but also the other aspects of people and technology. This idea could also support Martens' idea about the three aspects of people, process and performance, which affected by the conditions of the physical workplace, with the support of ICT (Martens, 2011). However, they formulated the idea differently. Gensler architects (2008) did not mention culture in his arguments, but more towards perception and preferences of the employees and organizations, where they conducted surveys towards workers in the US during their research. On the other hand, Martens (2011) included context in his diagram of the impact of the physical workplace (figure 5). This context could be translated as culture, where each employee has inherited their-own culture and bring it to the organization. However, these different cultures from the employees will have to adapt to the organizational culture, which will navigate the working process as well through organizational structure, working procedures, and company policies, et cetera.

Within the topic of the impacts of office design towards employees' productivity, the physical characteristics of the office will play dominant roles in enhancing or reducing their performance. Elements such as daylight and colours are some of the lists considered to have positive/ negative impact towards their behaviour and perceptions. The behaviour and perception will be related to the other domain of environmental psychology, which will be elaborated further in this proposal.

Sub-question 3: Culture in the workplace

The word culture comes from the same root as the verb "to cultivate", meaning to till the soil: the way people act upon nature (Trompenaars & Hampden-Turner, 1997, p. 23). It could as well be analysed as a phenomenon that surrounds us at all times, being constantly enacted and created by our interactions with others (Schein, 1992). Culture is about the shared tacit ways of being (Senge, et al., 1998, p. 62).

Furthermore as the ideas, customs, and social behaviour of a particular people or society (Oxford University Press, 2012) culture could represent the idea of company culture and local / national culture. Whereas company culture is a result of human enactment (Morgan, 1993, p. 111).

When we encounter other social systems, there are already given circumstances such as names, norms and habits, which have already developed since a long time. We cannot strip people of their common sense constructs or routine ways of seeing. They come to us as whole systems of patterned meanings and understandings (Trompenaars & Hampden-Turner, 1997, pp. 18-19). Thus, culture is context or location oriented. Even in one country, there could be different tribes, languages and traditions. Culture is the manner in which these dilemmas are reconciled, since every nation seeks a different and winding path to its own ideals of integrity (Trompenaars & Hampden-Turner, 1997, p. 183). Culture is also about acceptance in societies, which could be transpired as norms. Norms measure the standards for behaviour that exist within a group or category of people (Hofstede, et al., 2010).

The way individuals react to action conducted to them, or the way they communicate and interact with their colleagues or bosses at work, will reflect their values. Hofstede (2010) distinguished these mental programs into four different measurements, which then complemented with two more variables by Minkov (2010), which comprises of:

- **Power distance (power distance index)**: the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally. Subsequently, Hofstede created the Power Distance Index (PDI), which measure the differences of each country's power distances.

- **Collectivism vs. individualism (individualism index)**: collectivism has tighter ties between individuals than individualism. In organizations of collectivist countries personal relationship comes before task. While for countries with lower collectivism index (more individualist), task is more important than personal relationship in organization life.

- **Femininity vs. masculinity (masculinity index)**: masculinity in this point is the condition where a community indicates the extent to which the dominant values of a society are "masculine" (e.g. assertive and competitive), and intents to distinguish gender roles very clearly. On the other side, feminine communities tend to position men and women in the same level (e.g. both men and women are supposed to be modest, tender and have no obligation to certain roles).

- **Uncertainty vs. avoidance index**: the term avoidance in this condition comprises the feel of thread by unknown situations thereby tend to avoid these conditions. While uncertainty represents the less hesitant to face uncertain conditions. Uncertainty in the workplace environment is usually correlated

with job stress and the willingness to stay for longer/ shorter period of time.

- **Long-term orientation index**: this measurement is based on the Confucius theory on the Chinese values. The community that pursue long-term orientation are persistence (perseverance). They order relationships by status. They are thrifty and they have a sense of shame. The other way goes for the short-term community.

- **Indulgence vs. restraint index**: the indulgence vs. restraint index explains that some countries tend to be easily indulged than others. Interestingly, this indulgence does not have parallel correlation with a country's wealth. Some of the happiest countries are not the wealthiest country. Indulgence stands for a tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun. Its opposite pole, restraint, reflects a conviction that such gratification needs to be curbed and regulated by strict social norms.

In figure 8 the results of the Indonesian indexes, compare to the Netherlands, which will be used as a basis for the further comparative study of the workplace characteristics, are presented.
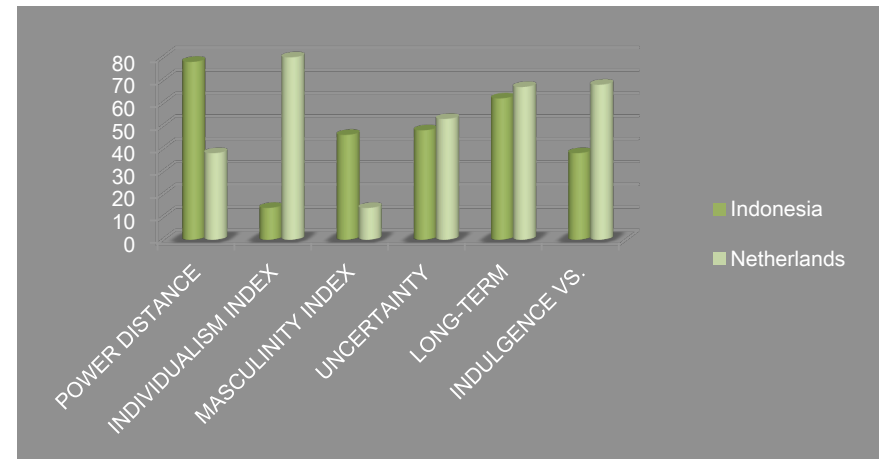

Figure 8 – Comparison between Netherlands and Indonesia, based on Hofstede and Minkov's indexes (2010)

Culture, together with the identity of the users could be expressed and reflected through the physical workplace (Martens, 2011). In relation with activities and the physical workplace, Plijter (2012) in her work also referred to Kloet (2007), who translated the variables of Hofstede and Minkov (Hofstede, et al., 2010) into the tendencies of physical preferences in the workplace.

Table 1 – Relations of cultural dimensions and workplace characteristics. Adapted from: Plijter (2012) & Kloet (2007)

Cultural dimensions	Workplace characteristics
Power distance	
High: Culture does not upwards mobility	Top managers, top floor
Low: Equal opportunities for all staff members	More open floor space
Individualism vs. collectivism	
High: Largely loose working relationship	Private spaces are important

Low: The colleague takes responsibility	More team space
Masculinity vs. femininity	
High: Male needs to dominate in organizations	Technical orientation materials
Low: balance in male and female needs	More colors and warmth
Uncertainty avoidance	
High: Many regulations to predict results	Standardized settings
Low: Creative and entrepreneurial environment	Inspirational furniture
Long- vs. short-term orientation	
High: Strong work ethic and respect for tradition	Predictable environment
Low: Change and flexibility to develop business	Common areas more important
Indulgence vs. restraint	
High: Higher tendency to allow relatively free gratification of life enjoyment	Less focus towards employees satisfaction on the physical workplace
Low: Such gratification is triggered by strict social norms	More focus towards employees satisfaction on the physical workplace

Indonesia and the Netherlands tend to have a very distinguished culture from the three out of four Hofstede's indexes. Based on the information in figure 8, Indonesian culture tends more hierarchical than the Netherlands, as it is mostly for Asian culture compare to the western world. The Power Distance Index proves the phenomenon, where Indonesia scores 40 points higher than the Netherlands. The Dutch tend to be more individualist than the Indonesians, and more feminine as well, while Indonesian parents expect their children to take care of them on their old days. The Indonesian society also tends to be quiet masculine, with discrepancy between gender roles. In conclusion of the cultural differences between Indonesia and the Netherlands, the countries have very different values, in four out of the six variables by Hofstede and Minkov (2010). These values should then be translated to the physical characteristics of a workplace in the further phase of the theoretical framework.

Conclusion culture in the workplace

From the power distance index comparison between Indonesian and Dutch culture, the **first general hypothesis** concerning its implementation in the workplace could be drawn:

"The settings of workplaces in Jakarta will tend to be more hierarchical, with more team space available, and less focus will be driven towards employees satisfaction, compare to the Netherlands."

The possible measurement for this hypothesis is by comparing the offices in Jakarta and the Netherlands, through case studies and interviews to check on both the products and process of the workplace decision making from the organization perspective.

The second hypothesis drawn from the perspective of the employees based on Kloet's idea (Kloet, 2007) of the long vs. short term orientation index of Hofstede & Minkov (Hofstede, et al., 2010), is:
"Employees in Jakarta will prefer a more predictable settings for their workplace, for instance having their own permanent desk with more personalization."

The predictable workplace in this context could be a tendency in having each desk for each employee. As Indonesians tend to avoid uncertainties, this can be translated into the tendencies to have a proper or certain desk for each person. Generalizing this input, workers in Jakarta would prefer to have their own desk, where they could have more personalization. In order to check this hypothesis, a survey will be conducted towards the employees, including the vignette method, which will be discussed further in this report.

Sub-question 4: Environmental psychology

This domain explains the perceptions of the employees towards physical characteristics of the workplace. Vischer (2007) and US Army Corps of Engineers (1997) tried to explain these indicators. The indicators comprise of:

- Territoriality: a means of achieving a desired level of privacy. One way to do this is through personalization.
- Privacy: a central regulatory human process by which persons make themselves more or less accessible to others. Two keys towards privacy are through visual control (visual privacy) and acoustic treatment (acoustic privacy).
- Comfort: this only includes functional comfort (ergonomic support for user's activities), since physical comfort (basic needs such as safety, hygiene and accessibility) is considered fulfilled beforehand.
- Status: to what extent does the workplace is segregated towards status.
- Control: could be translated as a psychological comfort, which explains the degree of environmental choice or empowerment users have through decision-making process.

According to Gensler's survey results over 2000 workers in the US, 90% of their respondents believe better workplace design and layout result in better employee performance. In addition to the importance of workplace design and layout for better employee performance, Kornberger and Clegg (2003) stated that in order to increase innovation and creativity, we have to create a "generative building that allows and encourages plurality, contradictions and dissencus, through its spatial organization".

When asked to rate the importance of workplace design, 89% of respondents rated it "important" to "very important."

90% of respondents indicated that better workplace design and layout result in better overall employee performance.
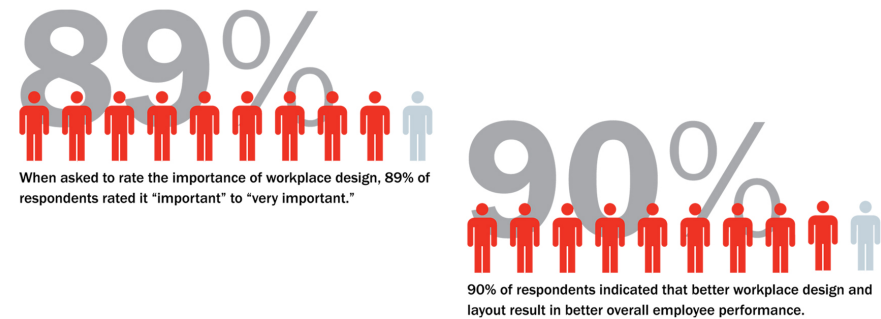
Figure 9 – Survey result on US workers in 2000 (Gensler Architects, 2008)

Furthermore, there are different attributes such as colours, lighting, material and layout design and its combination of partition heights and transparency, which will be influencing all the indicators mentioned by Vischer (2007). These attributes will be discussed further on the Discrete Choice Analysis part of this proposal.

Conclusion environmental psychology

Based on the findings, the **third hypothesis** could be concluded:
"Organizations are aware on the importance of the physical workplace, however, there is no evidence of real bottom-up approach, which starts not from organization's objectives, but from the perceptions and preferences of the employees."

This hypothesis will be measure by the interview towards key persons within the organizations and the small interviews towards organizations members during the case studies. The objective of the interview is to

discover the process towards their current workplace, how the companies achieve their objectives, whether they involve the employees or not.

2. Summary of Literature Study and the Hypotheses

Conclusions of sub-questions and literature studies

All four domains of the theoretical framework are connected and supporting each other in this research. Martens (2011) mentioned the context within the correlation of physical workplace and the three aspects of people, process and performance. This context could be translated as culture, both organizational and local culture. It is true that organizational culture tends to supersede the national culture. However, the interaction and the engaging process of the people will be different. Therefore, the product might look the same, but the idea towards the product will be different. For instance, to engage people in India, a playful design could be interesting since they are highly attracted to games. While in countries like Hong Kong or Singapore, food is another way to engage people to interact therefore creating a seating like diner booth for example, would be interesting for them (based on an interview with a property consultant working in Asia-Pacific region).

Based on the literatures studied, there are three hypotheses concluded. The first two hypotheses were deducted from the correlation between workplace and culture, whilst the last one was concluded from the overall view towards the four domains of the theoretical framework (innovative workplace, culture in the workplace, office design and environmental psychology.

Hypothesis 1:

"Compare to the Netherlands, the settings of workplaces in Jakarta will tend to be more hierarchical, with more team space available, and less focus will be driven towards employees satisfaction."

The case study of the empirical part of this research will be done to check this hypothesis. The ratio of the workspace area, compare to the numbers of employees and the team space available will be one way to check this. Another way is through interview with the management of the organizations, concerning the decision making process towards their current workplaces.

Hypothesis 2:

"Employees in Jakarta will prefer a more predictable settings for their workplace, for instance having their own permanent desk with more personalization."

Questionnaire towards the employees will be one way to check this hypothesis. Another way is through observation during the case studies and small interview with the employees.

Hypothesis 3:

"Organizations are aware on the importance of the physical workplace, however, there is no evidence of real bottom-up approach, which starts not from organization's objectives, but from the perceptions and preferences of the employees."

This hypothesis will be proven by interview with the organizations, to recognize their process towards the decision making of their current workplace. Moreover, the questionnaire towards the employees will also result to the kind of products that are preferred by the employees in Jakarta.

Each field will complement each other in supporting the process and furthermore the product of innovative workplace. Inputs will also be made from the context of Jakarta and the comparison cases in the Netherlands, to answer the research question.

Variables and indicators

In adamant, the five variables created by van Meel et al (2010) will be used as the variables:
- Use
- Layout
- Appearance
- Filing
- Standardization

Subsequently, four indicators from Vischer (2007) will be the indicators to measure the variables:
- Privacy
- Territoriality
- Status
- Control

The list of the variables and indicators could be seen in table 2. All the indicators, through observations during the case studies, will check these variables to measure the influence of culture in perceptions of office design. Detailed characteristics/ attributes such as materials, colours, lightings, furniture, et cetera are incorporated in table 2 as well. The case studies will include small interviews with organization members and interviews with key persons on decision-making in the organization.

The tables between variables and indicators are filled with the attributes of the physical characteristics from the environmental psychology's literature (see 3. Discrete choice analysis), as well as the consideration of cultural aspects, which could be translated in the physical form of the workplace. For instance, hierarchies, through status, could be translated through desk sharing or personal office. Privacy could be translated through partitions and floor materials or workplace arrangements.

Moreover, the attributes translated to measure the variables and indicators are differentiated through the measurement methods. The ones typed in green are the attributes, which will be measured by the satisfaction cross check on the questionnaire, while the ones typed in orange are the attributes, which will be measured both through questions on satisfaction towards current workplace and vignette for the preferences of the employees. Furthermore, all the attributes mentioned on the table will also be taken into account during observation of case studies and the interviews.

List of Variables

Table 2 – Variables and indicators for empirical research

	Use	Layout	Appearance	Filing	Standardization
Privacy & territoriality	Workplace: personal/ share desk/ others	• Openness: partitions, doors on workplace & meeting place	• Personalization: to what extent can users mark their workplace territory • Floor materials: can also be used as sound barrier	Accessibility to ones documents	Personalization: to what extent can users mark their workplace territory
Comfort	• Workplace: personal/ share desk/ others • Supporting space: layout and arrangement • Types of furniture in terms of ergonomic features	• Openness: partitions, doors on workplace & meeting place • Natural lighting and view from window	• Colours usage on workplace, meeting space and supporting space (warm colours/ others) • Lighting usage on workplace, meeting space and supporting space	Accessibility & distance to ones documents	Company's requirements on the workplace design
Status	• Workplace: personal/ share desk/ others • Types of furniture used for different employee status	• Room ratio (personal office/ not) • Layout of the workplace: open/ closed	• Use of different colours • Use of different materials • Types of furniture used for different employee status	Do they differentiate filling under hierarchical manner.	Workplace: personal/ share desk/ others & Layout
Control	• Ability to choose where to work • Ability to control indoor climate	• Ability to choose where to work • Control over natural lighting and view from window	• Ability to choose workplaces based on its appearance	Whether one can choose their type of filling.	To what extent the standardized office accommodates user's choice.

■ Satisfaction questions   ■ Satisfaction and preferences questions (through vignette)

2. Case study & key person interviews

"Culture is like gravity: you do not experience it until you jump six feet into the air." (Trompenaars & Hampden-Turner, 1997)

The aim of the case studies and interviews with key persons are to learn from both their success and failure in implementing their workplace design. In other words, in matching their objectives with the employees' preferences. Therefore, during the case studies, researcher will observe and investigate:

- Company's objectives behind the workplace change
- Employees' behaviours towards their workplace
- Physical characteristics of the workplace

Due to the limitation of time, the time given to conduct case studies in Jakarta is limited to 6 weeks only. The *"best-case scenario"* is to have six multiple cases. The first two will be local Indonesian companies located in Jakarta, while the other four will be from two different multinational companies working both in Indonesia and the Netherlands. The idea of having case studies is to represent the broader population of cases (Seawright & Gerring, 2008).

During each observation, the student automatically has to position herself as an outsider of the organization, a non-participant and natural observation. It means the objects of observations should not be distracted from their normal activities, although there could be some bias during the time they are observed. Therefore, small interviews will be conducted, where a series of encounters and joint explorations between the investigator and various motivated informants from the organization (Schein, 1992, p. 169). The various departments of each company have also been considered, thus the student will rotate to different departments in the companies. Approximately each department will be observed during the 1-7 days period, depending on the time slots available from the companies.

By using these four samples in Indonesia and the other two samples in the Netherlands, the writer is hoping to draw some differences and similarities within the product and behaviours towards the office design. How the members of each organization respond to their workplace environment will definitely depend on the culture of the organizations themselves.

Concerning the product, for the basic physical condition of all the cases, the information will be needed to support the observation are:

1. Total floor area
2. Type of business
3. Total population
4. Overall density
5. Percentages of:
   a. Circulation
   b. Support
   c. Work spaces
      i. Cellular/ private office space
      ii. Open office space
      iii. Cubicle spaces
      iv. Team space
   d. Meeting spaces

Source: Duffy (1997) & van Meel, et al (2010)

Furthermore, there are several practical limitations in procuring the case studies such as time limit and accessibility to the companies. Due to this limitation of accessibility to the companies, one-day observation will still be

tolerable. Since there are only 6 cases to be investigated, purposive case selection was used. The idea was to cross check all the variables and indicators, and to see whether these samples could represent the causal relationship base on the theoretical evidence (Seawright & Gerring, 2008). Moreover, the companies selected and still in approval process for the cases are:

Jakarta Cases

1. MedcoEnergi

MedcoEnergi is one of the leading oil & gas company in Indonesia.Through this company, the researcher wanted to observe the decision making process of the company and the result of their current headquarter in Jakarta. At the moment, the company is accommodating their central organization in their own building, the Energy Building. Located in the Jakarta CBD area, the organization started to operate in the new building since 2010. With the change in the current workplace, the researcher will conduct observations and small interviews both from organization's side and employee's side.
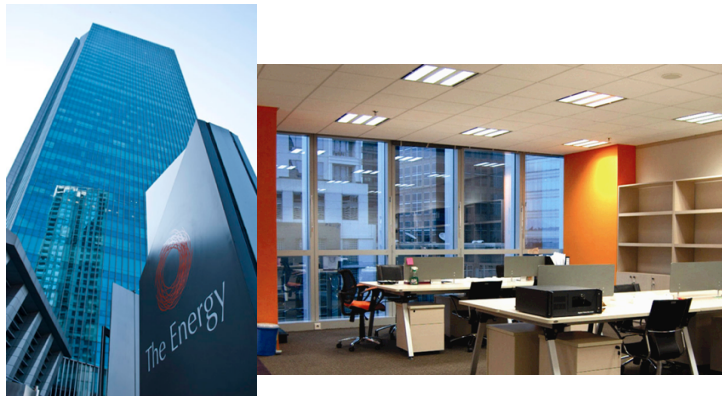

Figure 10 – MedcoEnergi office (Koninklijke Philips Electronics N.V., 2012)

2. P&G

P&G is a well-known US company producing FMCG (fast moving consumer product) such as shampoos, soaps, et cetera. At the moment, the company is using the hoteling system, where no member of the organization has his/her own desk, and they can reserve any room for the day on a first-come-first-serve basis. The same observation and small interviews will be delivered for the case, in order to see how the employees are adapting to this system. The company is occupying Sentra Senayan III building, on the 14th floor.

3. Ogilvy

Before occupying the same building with P&G Indonesia in Sentra Senayan III, Ogilvy Indonesia had offices spread around the city. In 2011 they decided to merge all their branches in Jakarta and merge them to one office in the current building. Currently they are occupying both the 10th and 11th floor of the building, together with their other brand, Mather. Designed by Moser Architect, the current office has open layout arrangement with some team room and entertainment area as well. After one year occupying the new office, it would be interesting to see how do the employees perceive their new workplace and to what extent they feel the increase of productivity.
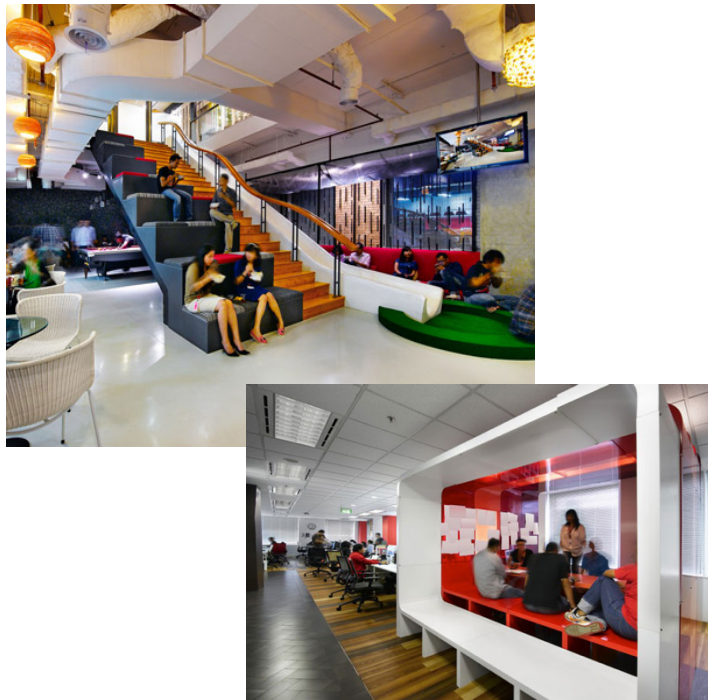
Figure 11 – Ogilvy & Mathers office (Trends Home Design, 2012)

4. Kaskus

Kaskus is a local company specializing in online discussion forum both for interests and commercial services. The company started by a young Indonesians, while studying in the US. The company joined forces with Global Digital Prima in 2011, which is funded by PT. Djarum, a well-known local tobacco company. On the same year, they move to their current office in Menara Palma. The organisation change will certainly have impacts on this decision to change the office, which is now created also more positive publication for the company (Latief, 2012; Maruli, 2011). Additional support areas such as entertainment area and catering area are some of the examples of their treats to the employees. From this case, the researcher would like to see the process and product of their innovative workplace, as well as the perceptions of the employees towards the new office.

Figure 12 – Kaskus office (Kariza, 2011)

Dutch Cases

The Dutch cases are still undefined, since the researcher is still waiting for the companies that will be the definite cases. The idea is to have the same company in the Netherlands as a comparison.

3. Discrete choice analysis

"A good looking office has no meaning if it cannot physically and emotionally support the people who inhabit it. A good office has to interact and support a vast group of workers, each of whom is effectively a client in their own right." (Sevil Peach)

In order to see how the employees perceive the type of workplace they opt for, a survey will be conducted. The objective is to view the workplace process and product through the perspective of the users (bottom-up approach), through using the discrete choice analysis. This method will use manipulated images containing different levels of the variables and indicators, known as the vignettes, as explained in table 2. Each attribute has different options, which are called attribute levels.

A vignette in psychological and sociological experiments presents a hypothetical situation, to which research participants respond thereby revealing their perceptions, values ,social norms or impressions of events. Specifically for this research, the method will contain several images for employees' preferences will be used. In order to define the relation between the cultural and behavioural issues of the employees in Jakarta with the physical workplace characteristics, theories in the field of environmental psychology is used to support the attributes used in this method. The reason of using this method is to create a set of questionnaire, which is neutral, not tending to recall their previous or current experience with the workspace.

As cited by Molin (2011), there are several important aspects in determining the variables for a vignette survey.

- Which independent attributes can be ignored to retain a salient and relevant list?
- Which attributes can be retained, recombined, or re-expressed to keep the set of attributes as non-redundant?
- Are the selected attributes relevant to managers or planner?
- Are the attributes clearly defined to the respondents?

After taken into account the aspects above, the survey will include the same variables and indicators described before. However, the images for the vignette method will represent some rooms required in office planning, as stated by van Meel et al. (2010) in their book Office Planning. The rooms will be divided into three categories:

No.	Function	Room type
1.	Work spaces	• Open office • Team space • Cubicle • Private office
2.	Meeting spaces	• Meeting room • Meeting space • Meeting point
3.	Support spaces	• Filing space • Print and copy area • Pantry area • Games room • Waiting area • Circulation space

Besides the functions and the room type, there are some lists of variables from the physical charactteritics of the office that are intergrated in the

variables and indicators in table 2. The long lists of attributes from the environmental psychology's literature are:

- Furniture
  This attribute/ element was proposed by Dul et al (Dul, et al., 2011)as one of the influencing elements towards creativity. The use of furniture could symbolize status and comfort at the same time.

- Climate
  Climate could be one of the factors towards control and comfort.

- Room colours
  Vischer (2007) included colours in architectonic details, which are likely to affect 'emotion-focused' coping behaviour in situations of workspace stress. It does appear that colour can influence workers' moods and, in general, that warm colours are exciting and cool colours are calming (Schatz & Bowers, 2005).

- Artificial lighting
  Artificial lighting could be related to the degree of control of one of the ambience factors in the office. Moreover, artificial lighting could also support visual comfort.

- Daylight
  Daylight research has linked increased comfort and productivity with window size and proximity, as well as with view out, control over blinds and shielding from glare (Vischer, 2007).

- Partition material & height (walls & partitions)
  Partition is one of the ways to create privacy. Different materials create different feel for visual and acoustic privacy.

- Floors material
  Floor material could be one other way to create sound privacy and territoriality.

- Window/ outside view
  The idea of outside view is in line with the daylight issue, which could either enhance or reduce comfort and productivity. However, the impact of window proximity also depends on the culture. For instance, in Japan, the highest proximity to window tend to be less productive (Jones Lang Lasalle, 2012a).

The attributes above are considered during the filling out process in table 2. Some literatures on ergonomic design are also helping in the decision making process of choosing the attributes below (Schatz & Bowers, 2005; Vischer, 2007; Wang & Boukberi, 2010). The variables and indicators of the matrix in table 2 are crosschecked through these attributes.

While the case study is done as a way to see the existing product, the behaviours towards them and the ideas behind them, the survey is a way of checking the perceptions and preferences of the employees. The vignette method will be combined with some questions about satisfaction towards their current offices, to do another crosscheck between the objective and the impact of the product towards the company.

Chapter 3: Provisional table of content & planning

1. PROVISIONAL TABLE OF CONTENT

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- Executive Summary

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   b. Jakarta office space
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2. Chapter 2: Research Component
   a. Research question
   b. Theoretical framework
   c. Hypotheses
   d. Research objectives/ target groups

Literature studies --

3. Chapter 3: Innovative workplace & office design
   a. Historical perception of office design
   b. Transformation of office design
   c. Concepts of innovative workplace
4. Chapter 4: Culture in the workplace
   a. Definition of culture
   b. Levels of culture
   c. National culture
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   e. Indonesian and the Dutch Comparison
5. Chapter 5: Environmental Psychology
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   a. Process towards innovative workplace
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Empirical Research --

7. Chapter 7: Cases
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      i. Case study
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8. Chapter 8: Cross case analysis
   a. General findings on Indonesian cases
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Conclusions ---

9. Chapter 9: Final conclusion(s) & discussion
   a. Final conclusions
   b. Discussion of the overall research process and findings
   c. Potential topics for further research

2. RESEARCH TIMELINE

Task	2012 Oct W1	W2	W3	W4	Nov W1	W2	W3	W4	Dec W1	W2	W3	W4	2013 Jan W1	W2	W3	W4	Feb W1	W2	W3	W4	Mar W1	W2	W3	W4	Apr W1	W2	W3	W4	May W1	W2	W3	W4	Jun W1	W2	W3	W4	Jul W1	W2	W3	W4
Preparation Examination 1 - 1/11/2012																																								
Problem statement	G	G	G	G																																				
First phase of literature study	G	G	G	G																																				
Elaboration of theoretical framework	G	G	G	G																																				
Research design	G	G	G	G																																				
Preparation Examination 2 - 16/01/2013																																								
Winter break											H	H																												
Literature Review					G	G	G	G	G	G			G	G										G	G	G	G	G	G	G	G	G	G	G						
Contacting Companies					G	G	G	G	G	G					O	O	O	O	O	O																				
Survey Methodology					G	G	G	G	G	G					O	O	O	O	O	O																				
Preparation for case studies					G	G	G	G	G	G					O	O	O	O	O	O																				
Constructing interview					G	G	G	G	G	G			G	G	O	O	O	O	O	O																				
Presentation & report preparation					G	G	G	G	G	G																														
Preparation Examination 3 - End of March 2013																																								
Case studies: Observation															O	O	O	O	O	O	G	G	G																	
Survey on employees															O	O	O	O	O	O	G	G	G																	
Expert Interview															O	O	O	O	O	O	G	G	G																	
Literature review															O	O	O	O	O	O	G	G	G																	
Compiling case studies and interview result															O	O	O	O	O	O	G	G	G																	
Presentation & report preparation															O	O	O	O	O	O	G	G	G																	
Preparation Examination 4 - End of May 2013																																								
Reflection on case studies & interview result																									G	G	G	G	G	G	G									
Linking the theoretical framework & results																									G	G	G	G	G	G	G									
Conclusion & recommendation																														G	G	G	G							
Preparation final presentation and report																									G	G	G	G	G	G	G	G	G	G						
Preparation Examination 5 - June/ July 2013																																								
Preparation final presentation and report																																		G	G	G	G	G	G	G

Legend:

- Time available to be in Indonesia (orange)
- Time available to be in the Netherlands (green)
- Holiday (dark orange)

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