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Factors Affecting Leadership Decisions in Delegation and Supervision: Achieving Balance for Empowering in Kaizen in Small Startups

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Abstract
Kaizen as a lean management tool is gaining popularity in small startups, since it focuses on continuous improvement and brings about benefits of meeting rapidly changing customer needs, improved quality of products and services, and improved work performance. Empowerment is required in *kaizen*, and delegation as one of the approaches of empowerment is widely used, while an appropriate level of supervision and control is needed to reach the balance between delegation and supervision, as to reach the optimal performance of *kaizen*. However, previous studies have not researched on factors affecting the choice of delegation and supervision behaviors to reach delegation-supervision balance. Hence, this thesis focuses on this topic. By conducting semi-structured interviews, follow-up interviews, and observations of interviewed firms, our research identified nine factors affecting the delegation-supervision behaviors: past experience, education, follower motivation, firm culture, different stages in the PDCA cycle, the complexity of the problem, the routineness of tasks, follower personality, relationships between leaders and followers; as well as six characteristics of delegation and supervision behaviors: choice of delegated person, approach of delegation, supervision formality, frequency of supervision, approach of supervision. Based on the analysis in the relationships between factors affecting the delegation-supervision behaviors, and the characteristics of delegation-supervision behaviors, we discovered 6 paths of achieving delegation-supervision balance, based on different combinations of affecting factors. The findings align with the framework of situational leadership theory and extend its boundaries to factors other than follower characteristics. The findings are also of practical implication to leaders applying *kaizen* in small startups.

Keywords: kaizen, empowerment, delegation, supervision, small startups

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1.Introduction

Lean management is a philosophy of continuous improvement. It is widely adopted in business practices over past decades as a modern technique to outperform in competitive markets. With the aim of reducing waste in production, lean management also includes improvement, and the implementation of lean management can drive substantial changes in managerial systems in an organization (Karlsson & Åhlström, 1996), bringing about benefits of meeting customer expectations, improving quality of products and customers, and increased productivity of workers (Kamińska, 2015).

Kaizen is one of the essential components of lean management (Kumar et al., 2018), originated in Japanese practices, meaning "continuous improvement". It was first introduced in the book *Kaizen: The Key to Japan's Competitive Success* (Imai, 1986). *Kai* refers to "change"; *Zen* means "improvement", and *Kaizen* evolved to represent "continuous small changes for improvement" over time (Krasiński, 2017). It is rooted in the 13th and 14th mediaeval Japanese culture (Sawada, 1995), and has been adapted to western countries and gained popularity worldwide. Though originated in the context of production, *kaizen* as a lean management tool has evolved to a managerial approach applicable in any organization, which engages all employees (Samadhiya et al., 2023). Nowadays, *kaizen* often manifests as part of a company's development initiatives, which can enhance team involvement and participation in general (Hernandez-Matias et al., 2020). Employees who actively engage in those initiatives tend to experience higher levels of belonging, satisfaction and self-fulfilment (Vinodh et al., 2021; Islami et al., 2018), as the employees are given more autonomy. This, in turn, will enhance employees' efficiency and productivity, while addressing employee retention issues (Sharma et al., 2022). The philosophy of *kaizen* is built on two principles: continuous improvement and respect for people (Aamer et al., 2022). Targeting at achieving continuous improvement in *kaizen*, Deming (2018) proposed a Plan-Do-Check-Act (PDCA) cycle model, consisting of four repetitive steps with logical sequence. PDCA cycle reveals the involvement of employees from all levels, and possible stages where employees could play a role in *kaizen*.

Kaizen is related to empowerment in management studies, since the inherent characteristics of *kaizen* is people-focused, which involves interaction between team managers and employees. It is worth investigating which level of empowerment is appropriate at different stages of the PDCA cycle. Menon (1998) defines empowerment as: *In an organizational context, employees are in the cognitive state characterized by a sense of perceived control, competence, and goal internalization.* To achieve the state of empowered employees, some managerial practices or behaviours could be applied, including delegating, consulting, recognizing, inspiring, and mentoring; and context factors, both at organizational level (such as communication, centralization) and job level (such as autonomy, satisfaction, meaningfulness), of which delegation involves changes in management structure. Of these tools, delegation as a practical tool for employee empowerment seems fascinating to a firm applying *kaizen*. Meanwhile, besides taking delegation as an empowerment tool, a certain level of supervision and control from higher-level management teams is also essential for preventing potential detrimental effects and ensuring the effectiveness of *kaizen* (Glover et al., 2014). Zaech & Baldegger (2017) points out that too much delegation for employees and teams, shows a negative effect in smaller startups. These detrimental effects include but are not limited to wrong improvement direction and the resource waste and economic loss caused by the wrong improvement direction, weakened prestige of leaders. Kharub et al. (2023) indicates that the involvement of supervisors in decision-making is critical for *kaizen* success, meanwhile adequate autonomy to the *kaizen* team also serves as an element for successful *kaizen*.

As two critical aspects in employee empowerment, the level of delegation and supervision decides what autonomy rights and which form of support and limitation should be given to follower employees from leaders in *kaizen*. Related questions include: In the "Plan" stage, should employees be allowed to set goals autonomously or with supervisors' suggestions and interference? In the "Do" stage, which criteria are needed for supervision and what kind of resources and tasks can be delegated to employees? In the "Check" stage, are employees allowed to self-check or under supervision? Is external interference needed when an improvement plan is found unsuitable or in the wrong direction? In the "Act" stage, should the standardization process be spontaneous led by employees? At which level are employees empowered with decision-making rights? By answering these questions under different follower developmental levels, it could be figured out where the balance point is, which is particularly crucial when firms apply *kaizen*. When a firm reaches a stage where it delegates

and supervises employees at an appropriate level to reach the highest performance and efficiency in continuous improvement, it is called the firm reaches delegation-supervision balance.

Previous articles mentioned the approaches to reach the stage of delegation (Johnson, 1995); (Lui et al., 2007), the manners in delegation and supervision (Park & Kim, 2023), and the importance of supportive supervision (Ozbozkurt et al., 2021) regarding delegation-supervision balance. These articles focus on delegation and supervision in firm management, but they didn't touch upon what is the balance state of delegation and supervision, and what factors affect the delegation and supervision behaviors to reach the delegation-supervision balance, nor did they have a strong relationship with *kaizen*, and the scopes are mainly focused on large corporations, overlooking a major component in the economy - small startups. In fact, reaching delegation-supervision balance in *kaizen* is especially crucial for small startups, since small startups face a more limited resource constraint, and they need a fast reaction speed to the competition within the industry field they are in. Hence, our research focuses on the delegation-supervision balance in small startups when leaders empower followers in *kaizen*. In the process of analyzing how to delegate and supervise, this thesis identifies factors that affect the delegation and supervision behavior characteristics, and how these factors combined in various situations proposes different paths for delegation and supervision, which is not mentioned in previous studies. Hence, the research topic of this thesis is proposed as follows:

What factors affect the leaders' choices of delegation and supervision behaviors, to reach balance in the empowerment process of kaizen in small startups?

2. Literature Review

2.1 Kaizen and PDCA Cycle

Imai (1986) defines *Kaizen* as "*the process of gradual and incremental improvement in a pursuit of perfection of business activities*". As one of lean management practices, *kaizen* has received worldwide attention and of these researches, Manos (2007) points out that a firm can

benefit from applying *kaizen* in reducing time and monetary costs caused by inventories. Chan et al. (2005) states that *kaizen* is a sharp tool for startups to compete in the increasingly competitive market by adjusting to rapidly changing customer needs.

According to Deming (2018), the "Plan-Do-Check-Act" cycle (PDCA cycle) is used in *kaizen* for process improvement. In the "Plan" stage, improvement goals and plans are set based on analysing collected data; in the "Do" stage, these improvement plans are implemented; in the "Check" stage, the results from implementing these improvement plans are measured and confirmed; in the "Act" stage, employees learn lessons and successful improvements are standardized.

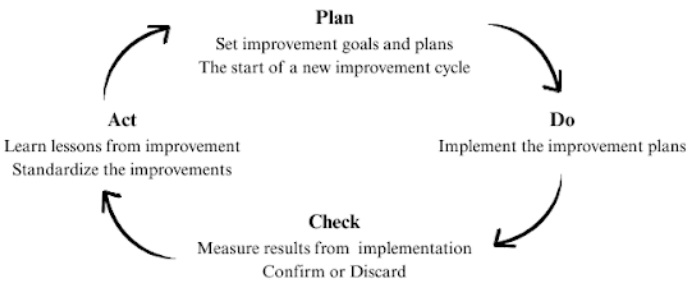


Figure 1 PDCA Cycle (Deming, 2018)

Chakraborty (2016) points out that PDCA cycle is a scientific model based on data to drive continuous and incremental improvements in efficiency, effectiveness, performance, and other indicators in quality, and by adopting PDCA cycle in *kaizen*, small startups could nurture a proper routine for improvements and solving disruptions at a small scale. Meanwhile, the author also concludes that small startups can only benefit from the *kaizen* and PDCA cycle, once they have fully established a stable framework of the model within the company.

2.2 Empowerment in Kaizen

The definition of empowerment given by Menon (1998) is: *In an organizational context, employees are in the cognitive state characterized by a sense of perceived control,*

competence, and goal internalization. Perceived control means employees are granted autonomy with resources, decision-making latitude, authority, and schedule control, which can be achieved by providing employees with power tools like information, resources, and support. Perceived competence means employees are aware that they are capable of accomplishing requirements in work, which can be achieved by removing working conditions that foster powerlessness. Goal internalization means employees align their goals with those of the firms and organizations, which can be achieved by transformational leadership style.

Several researches have pointed out the importance of employee empowerment in *kaizen*. Janjić et al. (2020) points out that the success of *kaizen* depends heavily on human factors and training employees. It discovers that empowering employees by equipping them with basic competence could bring benefits of deeper understanding of philosophy and process of continuous improvement. The author also states that when empowering employees in *kaizen*, areas should cover problem-solving, cooperation and partnership construction between managers and workers. Bwemelo (2014) points out that the outcome of *kaizen* could be improved by increasing the perceived competence and goal internalization of employees, especially the key abilities required for the job and the motivation of employees. Desta (2012) identified six conditions for a successful *kaizen* practice, with some including free and adequate access to information resources, required level of employee autonomy, employees' skills at decision-making, and result-oriented goals, falling within the field of employee empowerment.

There are also researches pointing out that over-delegation and lack of supervision in *kaizen* will pose a threat to small startups. Satpathy (2003) concludes that over delegation of responsibility by top management could lead to failure of lean practices, including *kaizen*. The failure could be caused by the lack of clear focus of leadership once the responsibility of top management is over-delegated. Kamińska (2015) points out that the application of *kaizen* requires careful supervision, especially in the process of implementing the improvement plans. The author also emphasizes that lack of supervision could result in no objective aim in mind, hampering the success of *kaizen.* The need to prevent over-delegation and the requirement for a certain level of supervision is shown through the whole PDCA cycle: at the "Plan" stage, inappropriate improvement goals and goals in the wrong direction could lead to wasted effort. At the "Do" stage, lack of supervision and insufficient guidance could cause double work, where employees could be confused about how to implement the improvement

plan with an appropriate division of labor (Garcia & Oropesa, 2017). At the "Check" stage, employees have a tendency to conceal or defend their failures in *kaizen*, and it is when a supervisional structure in the firm should perform duties of detecting these failures (Garcia & Oropesa, 2017). Also at the "Act" stage, the standardisation of successful improvements relies on an authoritative department. These potential drawbacks of over-delegation listed above means an even more stark situation for small startups applying *kaizen*, since they are facing a more constrained resource condition which could not afford these resource waste.

On the other hand, an inferior level of delegation in *kaizen* will limit the creativeness and innovation in small startups. As *kaizen* bears the character of bottom-up decision making and employee-driven management style (Desta, 2012), an inferior level of delegation and too much and strict supervision will reduce employee initiative, hampering the implementation of improvement plans, while employees with enough autonomy and with supportive supervision are more incentivized to set an improvement goal and implement the improvement plans in their work process (Shatrov et al., 2021). Another concern about the inferior level of delegation and too much supervision in *kaizen* is with regards to the *kaizen* principle of "respect for people". If employees are continuously compelled by supervisors to perform improvement plans without respect and enough autonomy, they would be working under strong pressure, meaning a reduced productivity as well as raising humanity concerns.

2.3 Delegation-Supervision Balance

The benefits of delegation in employee empowerment and the need for supervision hence propose a delegation-supervision balance problem for companies, especially for small startups. Given the close connections of delegation-supervision balance in employee empowerment to *kaizen*, and the enormous benefits of applying *kaizen* in corporations, it is worth studying where the balance should lie. Regarding this topic, past researchers have proposed several models and suggestions. Johnson (1995) put forward some methods to empower employees by providing support in supervision in the meantime of delegating employees with risk-taking tasks. However, it did not exactly mention which kind of supportive supervision and what kind of employees could be delegated with risk-taking tasks. Lui et al. (2007) proposed a refined delegation certificate approach, where each user in the delegation chain could perform supervision rights, to achieve delegation with supervision.

However, this model puts a heavy emphasis on authorization and avoiding complex structures, which is not very applicable for small startups since most small startups bear a rather flat structure. Park & Kim (2023) implies that supervisors should delegate with civil manners without hostility and provide support to employees. Meanwhile it did not mention which tasks should be delegated to what kind of employees, and this research focused only on professional tasks delegation which requires new skills and had not touched upon continuous improvement. Mathebula & Barnard (2020) highlighted factors for successful employee empowerment, which includes monitoring work quality and compliance with delegated employees. This article did not research on the relationship between skills and delegation, but suggested future research to focus on the question "should high-skilled employees be delegated more". Ozbozkurt et al. (2021) pointed out that delegation and supervision are not contradictory factors in employee empowerment, that supervision does not equal restriction but can also be perceived as support for delegated employees, and that perception is positively correlated with structural delegation. This article suggested a supportive and participative leadership style but left how supervisors should provide support remain unanswered. Also, these researches are too general and loosely connected to the lean operations.

2.4 Application in small startups

By the definition of the European Commission, small startups are enterprises with less than 50 employees in total and with an annual turnover of less than 7 million euro or with a total balance assets less than 5 million euro (Savlovschi & Robu, 2011). Small startups contribute a large proportion of companies, provide two thirds of total job supplies, and a great extent of innovations in technology and business model takes place in small startups (Savlovschi & Robu, 2011).

Currently, the researches on delegation-supervision balance in *kaizen* are mainly focused on large, mature corporations, with more complex management structures, but some unique problems might appear in small startups when they apply *kaizen* and start to touch upon empowerment. Given that small startups bear the following characteristics, sorting out the delegation-supervision balance weighs more for small startups, and thus needs special attention.

1. Perlow et al. (2002) shows that small startups need a more centralized decision-making structure, to ensure a quick reaction due to fierce competition with incumbent rivalries. This means when small startups are engaged in delegation, it is wise to take a more cautious approach, not delegating too much decision-making rights and access to resources to employees.
2. Glover et al. (2014) reveals a stricter resource constraint that small startups might need to face, indicating a potential shortage of supporting resources needed for empowerment, hampering the efficiency and performance of *kaizen*. Blocked access to critical financial and operational resources would hamper the quality of delegation, while in the meantime restricting supervisors' ability to provide support and affect employees' positive perception of supervision, intensifying conflicts in the empowerment process (Medinilla, 2014) .
3. Brüggemann (2014) also proposes that the firm culture plays an even more affecting role in small startups compared to large corporations.

There are some articles focusing on *kaizen* practices in small startups though. Mapunda (2019) reviews the implementation of *kaizen* in African countries and examines the determinants of *kaizen.* It points out the top management support, teamwork and employee participation, employee empowerment are critical determinants for *kaizen* adoption by small startups in African countries. The study also recommends *kaizen* promotion policies for policymakers. However, regarding the balance and how to conduct employee empowerment in small startups, the article did not touch upon those topics. Muff (2022) discovers the critical success factors for Swiss small startups applying *kaizen*, including top management commitment, the application of PDCA cycle, team-based culture, customer oriented strategy, and process-based structure. The study also places employee empowerment at the core of a kaizen organization, requiring maximizing employee capabilities and engagement and pursuit of perfection. Further research is needed to clarify how to motivate employees in employee empowerment according to the author. Bwemelo (2014) gives some recommendations to small startups when applying *kaizen*: training employees to use *kaizen* tools, motivating employees by monetary and non-monetary rewards, and using bottom-up approach of management. However, these articles with a focus on employee empowerment when studying *kaizen* in small firms have not touched upon the factors affecting the delegation-supervision balance. Neither has the connection between different stages in *kaizen* and the corresponding

optimal choice in delegation and supervision been carefully examined. Considering the relative importance of reaching a balanced empowerment in *kaizen*, and special characteristics of small startups, the research topic of the thesis is structured as follows:

What factors affect the leaders' choices of delegation and supervision behaviors, to reach balance in the empowerment process of kaizen in small startups?

3. Theoretical Framework

The main theoretical framework of this thesis is situational leadership (SL). The choice of theoretical framework is mainly based on the characteristics of most small startups being strongly influenced by founders. The delegation-supervision problem in *kaizen* could fit into the framework of SL.

The main idea of SL is that it suggests different situations require different kinds of leadership. Leadership styles are suggested to be adapted to meet the demands of each situation, based on follower developmental levels. SL classifies leadership behavior into two types: task behavior which is directive, and relationship behavior which is supportive. SL also classifies follower developmental levels into four stages, from the lowest to highest there are four stages: R1 refers to unable and unwilling or insecure followers; R2 refers to unable but willing or confident followers; R3 refers to able but unwilling or insecure followers; R4 refers to able and willing or confident followers. According to the level of directive task behavior and supportive relationship behavior, SL classifies the leadership style into four types: S1 (Directing),S2 (Coaching),S3 (Supporting),and S4 (Delegating). Of these four leadership behavior types, S1 refers to high-task/low-relationship leader behavior, where leaders give clear instructions to followers and with low levels of supportive behavior; S2 refers to high-task/high-relationship behavior, where leaders attempt to demonstrate more supportive relationship behaviors while keep high task behavior; S3 refers to high-relationship/low-task behavior, which means leaders decrease their directive task behavior while keeping their supportive relationship behavior high; S4 refers to low-relationship/low-

task behavior, which is also labelled as “fully delegation” because now the followers perform their tasks completely autonomously (Northouse, 2025).

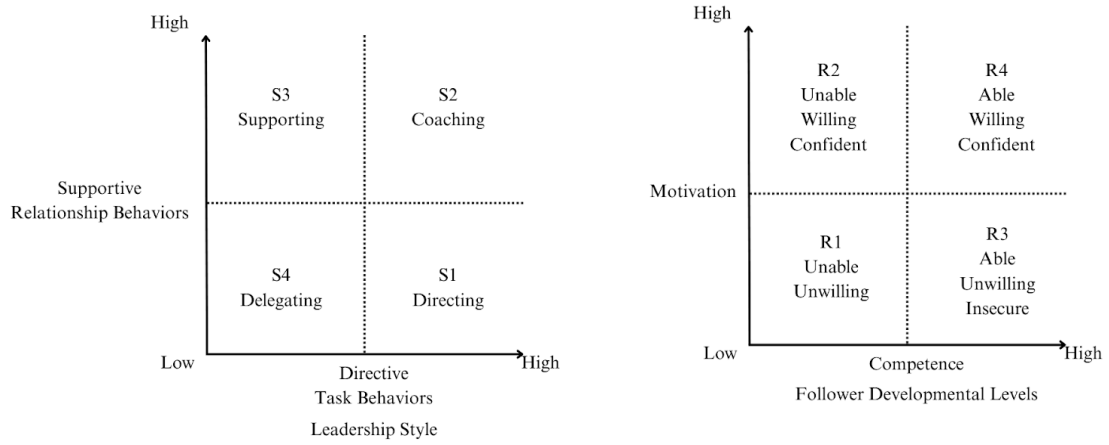


Figure 2 Situational Leadership Theory (Northouse, 2025)

While situational leadership theory mainly focuses on adaptation of leadership style in various situations, a dynamic shift in employee empowerment can be observed within the theory. The level of delegation increases in two forms in the leadership behavior shift from S1 to S4: (i) when the leader shows less leadership behavior generally; (ii) when the proportion of supportive relationship behaviors increases and substitute for directive task behaviors. Both directive task behaviors (issuing clear task orders to employees) and supportive relationship behaviors show supervision in the empowerment, while directive task behaviors means a stricter and more clear form of supervision. From S1 to S4, the level of delegation shows a trend of increase, while the level of supervision increases and peaks at S2, then decreases. Hence, people can view S2 as a leadership style with highest supervision level; while S4 as a leadership style with highest delegation level.

Kaizen’s delegation aligns with SL’s supporting and delegating styles, while supervision aligns with SL’s directing and coaching styles. When employees are still unfamiliar with the tasks and need continuous improvement in *kaizen* methods, clear instructions on the tasks and goals that need to be achieved should be provided (S1). As employees gain experience, fewer directive behaviors and more encouragement should be given. Leaders shift their leadership style more on hands-on coaching, performance tracking, and corrective guidance to ensure the accomplishment of goals (S2). As employees are capable of driving

improvements autonomously, leaders encourage them to think critically instead of providing direct instructions, coaching, or giving solutions (S3). Once employees gain high competence and are confident enough to make independent decisions in *kaizen* processes, they take full responsibility for their tasks (S4). This fitting process means leaders' high prestige enough to interrupt and revise the improvement plans and implementation in *kaizen*.

The most suitable aspect of SL is that it takes the followers of different developmental levels into consideration, which is an influential factor regarding employees, the subject of *kaizen* in the spotlight (Hersey & Blanchard, 1997). Originally the follower developmental level was a combination of follower readiness (employees' readiness to take greater proportion of responsibility), and competence (Thompson & Vecchio, 2009), and since *kaizen* involves employees at all levels, it makes sense to give different prescription on how to empower employees depending on varying follower developmental level. When fitting delegation and supervision into SL, people can view delegation as a process where directive behaviors decrease, meaning the employees are given more decision making rights in *kaizen*. Similarly, supervision can be interpreted as the extent of directive behavior, where leaders have a greater voice on setting improvement goals, directing the implementation of improvement plans, and judging whether these improvement plans have reached expectations and whether the improvement should be standardized or not.

It is expected that the follower developmental level could be a factor that leaders should take care of when they take care of reaching delegation-supervision balance in *kaizen*. By applying situational leadership theory and measuring the level of success and the match between styles of leadership and follower developmental level, the SL theory could be verified and follower developmental level could be proved as an impacting factor. Given all these considerations and adaptations, the SL model is a suitable fit for the needs of lean leaders in small startups when empowering employees and teams in *kaizen*.

The situational leadership (SL) theory also inspires a new scope into fitting leadership style according to different conditions, such as external factors. For example, another expectation is that the competitiveness of the industry field where the firm operates could serve as an impacting factor.

This framework is useful for the research, since based on its classification of delegation-supervision patterns, an overview of how the delegation and supervision works in small

startups could be sketched. On top of that, details of delegation and supervision could be investigated.

4. Research Methods

4.1 Data collection

The methodological approach of the thesis is qualitative research. The main approach of collecting data is through conducting interviews via zoom or in person. Besides interviews, data are also collected via observation. Interviews are suitable for this research for the following reasons. First, it is difficult to quantify delegation and supervision level in continuous improvement, which means data cannot be collected comprehensively and precisely by questionnaires. Conducting interviews allows the collection of more detailed and personalized perception of delegation and supervision suitable for qualitative research. Second, interviews are more flexible and inspiring, allowing for novel ideas and opinions. It reserves space for interviewees to share their thoughts on continuous improvement, even if it is not on the interview protocol. Third, interviews are especially suitable for small-scale but deep sighted studies. Regarding the research topic of this thesis, the data source is not intended to cover a large quantity but instead should reflect the essential considerations regarding delegation-supervision balance.

The form of the interviews is semi-structured interview, with designed interview protocols, but in the meantime interviewees are allowed to provide additional notes, and interviewers can ask additional questions or shift to another series of questions according to the answers of interviewees. Semi-structured interviews are chosen for the following advantages. First, semi-structured interviews provide the possibility for interviewees to talk more and share their distinctive opinions on the delegation and supervision in the continuous improvement they are engaged in. Since the implementation of continuous improvement in each firm is different in scale, type, and forms, there are some additional questions needed to ask outside of the protocol, and a semi-structured interview reserves space to adjust the content of interviews, thus is not so rigid (Adeoye-Olatunde & Olenik, 2021). Second, semi-structured

interviews can help reduce the complexity of coding compared to unstructured interviews (Adams, 2015), and the research is mainly focused on the factors impacting the delegation-supervision balance, the delegation and supervision behaviors, and the relative considerations of employers or leaders are especially focused on and should be the main theme of the interviews. As semi-structured interviews, the interview protocols are included as Appendix A.

In the interview protocol included interview questions regarding the following themes:

1. The characteristics of the firm, including scale, industry field, organizational structure;
2. The continuous improvement practices carried out by the firm;
3. Delegation and supervision behaviors in the PDCA cycle of continuous improvement. The factors affecting the choice of delegation and supervision.

The interviews are carried out in two steps: first, the semi-structured interview helps to understand the overview of the management structure and *kaizen* practice within the small startups, and to censor the eligibility of the interviewees; second, after having identified the possible impacting factors, follow-up interviews are conducted to get more details on the relationship between these impacting factors and the delegation-supervision behaviors and balance.

As a supplementary approach of collecting data, observation is also applied in the process. For the interviewees whose firm is located in Stockholm and allows visiting, we use observation on these firms. We visit these firms as a visitor, attending their conferences as an observer, and talking with employees about their feelings and opinions about the delegation and supervision practices. The observation provides data in a more objective manner by allowing the researchers to interpret the *kaizen* practices of these firms from the actual practices, rather than mere declarations from leaders.

After having collected data, we examined the validity of the collected data. Preliminary conditions are carefully examined to ensure the size of the firms meet the standard of small startup, and the firms apply continuous improvement in their practices. Some of the

interviewees might not be aware of the application of *kaizen*, but as long as they understand and admit the existence of continuous improvement, the data is considered valid.

4.2 Data Coding

The Gioia method is used for data coding. It is first applied in Corley & Gioia (2004) consisting of three steps in data coding. The data structure entails three tiers: 1st order concepts, 2nd order themes, and aggregate dimensions. It allows to sort out the key concepts among a large amount of original data, while keeping the original language of the interviewees in the 1st order concepts, which ensures the trustworthiness of the data.

The data collected by semi-structured interviews are analyzed by open coding and are sorted out as 1st order concepts. The 1st order concepts are valuable conversations and phrases by interviewees, related closely to the concept of delegation and supervision. In the process of open coding, phrases and conversations containing “delegation” “supervision” “improvement” “tasks”, the characteristics of “employees/followers/interns”, “team culture” “competition” “cooperation” and other related words are identified and coded.

Following that, an axial coding process is carried out, where 1st order concepts are compared to find similarities and relations, and then categorized and assembled into higher order themes, namely 2nd order themes. Finally, these 2nd order themes are gathered to form dimensions of the research, called aggregate dimensions, for future analysis use.

4.3 Data Generalizability

To ensure the generalizability of the collected data, the sample of the interviewees is designed at highest diversity as possible, to ensure the representativeness of interviewees. The interviewees come from different fields: finance, real estate, gaming and entertainment, art training, and AI development. We avoided only picking one type of interviewees, rather, the position of interviewees covers both CEO, CFO, product owners and frontline workers. CEO, CFO, product owners and cofounders as the actual controllers and leaders of the firm, generally hold an overall scope of current situations and can decide on the future direction of

continuous improvement practices of a firm. Hence, their opinions and narrations are valuable for the research. On the other hand, frontline workers are at the centre of *kaizen* (continuous improvement), and the implementation of improvement plans are exactly carried out by frontline workers. They also have a more objective sensation of firm culture, which is also one of the factors that this research plans to investigate. This arrangement also reduces subjectivity bias, because managers and leaders could prettify the actual situation of the firm for the consideration of reputation, while frontline workers could reflect and narrate with less scruples. When conducting interviews with frontline workers, their leaders and managers are not informed to minimize the external interruptions.

4.4 Data Validity

To ensure the validity of the collected data, we conducted follow-up interviews to verify the findings and assumptions discovered in the primary semi-structured interviews. The follow-up interviews are more detailed in design. To avoid subjectivity bias, any inductive questions in the follow-up interviews are avoided (Malim, 2001).

4.5 Data Reliability

To ensure the reliability of the collected data, the data collection process is standardized: all the interviews follow the same structure and process, and we transcribe each interview. We conducted the data coding process independently, followed up by a combination of the codings. Through this approach, the data is coded as their most significant and distinct characteristics, reducing possible distortions in the data coding process (Batini et al., 2009).

Also, data triangulation is done by combining the main data collection method - interviews, with other forms of data collection, such as observation. For interviewed firms with an open access, we visit the firm to observe the working process and talk to the employees. This increases the data reliability and mitigates subjectivity bias (Malim, 2001).

5. Empirical Data

20 people were invited to an interview in total, involving 12 CEOs, 1 CFO & COO, 1 product owner, 1 manager, and 5 frontline workers. We also performed observations in 8 of these firms. All these interviewees admitted the existence of continuous improvement practices within their companies. The following chart shows the basic characteristics of the interviewees and their firms.

Code	Duration	Position	Industry Field	Code	Duration	Position	Industry Field
A*	110 min	CEO	Valuation	K	90 min	CEO	Crystal
B*	120 min	CEO	Entertainment	L	110 min	CEO	IT consulting
C	120 min	CEO	Battery	M	125 min	CEO	Mobile App
D	115 min	Product Owner	AI Medical	N*	125 min	CEO	NGO
E*	100 min	CEO	Consulting	O	105 min	CEO	Travel
F*	125 min	Frontline worker	Entertainment	P*	105 min	CEO	Language Training
G	120 min	CEO	Financing	Q	120 min	CEO	Skincare
H	70 min	CFO & COO	Corporate coaching	R	105 min	Frontline worker	Coaching
I*	115 min	Frontline worker	Culture	S	115 min	Frontline worker	Coaching
J	105 min	Manager	Consulting	T*	130 min	Frontline worker	Language Training

Table 1 Overview of Interview Data

(Source: Own work; code with * means there is also observation)

In the open coding process, 65 1st order concepts are identified from 20 interviewees. When conducting the axial coding process, it is found that 1st order concepts can be categorized into 15 2nd order themes: education and past experiences, motivation of followers, firm culture, different stages in the PDCA cycle, the complexity of the problem, the routineness of tasks, follower personality, relationships between leaders and followers, complexity of problems, routineness of improvement tasks, choice of delegated person, approach of delegation, supervision formality, frequency of supervision, strictness of supervision, and

approach of supervision. The first nine 2nd order themes can be classified as an aggregate dimension of “affecting factors”, and the last six 2nd order themes can be classified as an aggregate dimension of “delegation and supervision practices”.

“Past experiences” refers to whether the follower has abundant experiences in related fields, which is accumulated as followers work for more years in the same field. As followers have more past experiences in solving similar problems, they are considered as more experienced. “Education” is a factor characterized by the number of years of education received by followers and whether the follower has a degree in related fields. “Follower motivation” aligns with the situational leadership theory, focusing on the motivation dimension of follower developmental level. Leaders justify the motivation of a follower by: the loyalty of followers to the firm; the passion of followers towards their work; the desire of making contributions to the firm. “Firm culture” is the norms and working environments within the firm, which can be competitive, democratic, equal, or autocratic; “Different stages in the PDCA cycle” refers to the four stages of PDCA cycle: “Plan”, “Do”, “Check”, “Act”, and the choice of delegation and supervision patterns can differ in these four stages; “The complexity of the problem” refers to whether the problem is complex in spotting, analyzing, and solving; “The routineness of the task” refers to whether the improvement task is repetitive, ordinary, and predictable, or whether there is past patterns to follow when dealing with the improvement task; “Follower personality” refers to the nature of followers, and the mental developmental level of followers, which is also considered as an important dimension in situational leadership theory. Different from the follower motivation, follower personality focuses on the intrinsic, essential nature of followers, such as being fragile, or having a strong spirit, or with high mental resilience. “Relationships between leaders and followers” depicts the closeness or intimacy of leader-follower relationship, which is demonstrated by the trust in and attitude towards each other. These nine 2nd order themes form an aggregate dimension, “factors affecting the delegation and supervision behaviors”, since these 2nd order themes cover the factors that leaders would take into consideration when deciding on the delegation and supervision behaviors.

1st order concept	2nd order theme	Aggregate Dimensions
"...(being) an experienced person in handling business within the field, so I hand over the responsibility of a project to him..." – Q, CEO	Past Experiences	Factors affecting the delegation and supervision behaviors
Managers are more willing to give people with more related experience more autonomy		
The number of years of work experience is related to the level of delegation positively		
Being able to apply a problem-solving template from past experience allows for less strict and formal supervision.		
Employees with higher education degree are delegated more.	Education	
Employees with degree in relevant background are given more autonomy.		
"As they are masters student, I can trust them in their professional fields." – A, CEO		
Some employees might cheat, so strict supervision are applied.	Follower Motivation	
"Followers can betray me, so I hold the decision right to myself." – E, CEO		
Some employees are reluctant to work, hence cannot expect them to handle tasks on their own.		
Unwilling employees distorting improvement plans requires strict supervision		
Passionate employees are delegated with more responsibilities, and resource control		
Desire for making contributions to the organization, is a factor making managers delegate more.		
"I view this business as my own business... so I'm willing to take more responsibilities" —— I, Frontline worker		
"We are a democratic, equal, and friendly company, (followers) they enjoy freedom" – G, CEO	Firm Culture	
Competitive culture, meaning Tense competition between employees, fosters self-supervision.		
In a firm with competitive culture, employees are rewarded according to their performance, which is a form of supervision.		
The leader cares about the feelings and emotions of an employee, when the firm culture is more casual and not competitive.		
Limit delegation to a small group when making the improvement plans.	Different Stages in the PDCA Cycle	
KPIs are set by leaders, not by followers to examine the performance of improvement task		
It's safer to delegate more to employees when implementing improvement plans		
"We cannot decide the improvement plan." – I, frontline worker		
Top and medium level of managers dominate the standardization of improvement.		
Less bother from minor issue when employees implement the improvement plans.		
Delegation decreases with rising complexity.	The complexity of the problem	
Managers hold more control on resources when facing difficult problems that requires lots of time in analyzing		
"If the problem is easy to solve, I will engage interns in decision-making." – A, CEO		
When facing complex problems, it's difficult to utilize resources efficiently, so managers are cautious about giving followers too much autonomy.		
Higher complexity lead to stricter supervision, while lower complexity lead to looser supervision.		
Routine task (task with existing patterns to follow) requires informal supervision	The routineness of tasks	
"If the task is too novel, I hold control." – B, CEO		
"As their tasks are highly repetitive, it's OK to let employees handle on their own" – K, CEO		
Repetitive and predictable routine tasks lead to lower supervision strictness		
Optimistic personality lead to delegating more responsibilities and less frequent supervision.	Follower personality	
Strong spirit or mental resilience lead to delegating more responsibilities, and it's acceptable to apply stricter supervision.		
"They are fragile... so I just ask them to do their own job freely" —— A, CEO		
Sensitive and emotional personality lead to delegating fewer responsibilities		
"I always doubt their loyalty and incentive… can't feel trust I'm kind of reluctant to delegate them… " —— E, CEO	Relationships between Leaders and Followers	
"However, my boss doesn't trust us ... he keeps at a distance... come to our meetings to supervise us" —— R, Frontline worker		
High-trust and intimate relationships lead to less frequent and less strict supervision		
Some leaders have confidants, and are willing to hand over resource control to them, with very low level of supervision.		

Table 2 Data Coding Part I : What factors matter for the decision
(Source: Own work; 1st order concepts without a quotation mark are from observations)

"Choice of delegated person" refers to the range of delegation to followers. Specifically, it is with regards to how many followers are delegated, and which follower to delegate to. "Approach of delegation" is about how and in which form the delegation is carried out. From the interviews and observations, the approaches of delegation in *kaizen* can be classified into: delegating responsibilities, giving followers control over critical resources and providing resource support, giving followers decision-making rights, cutting down the level of supervision. "Supervision formality" refers to whether the form of supervision is formal or not. Formal supervision includes regular meetings, written reports, and setting clear KPIs. Examples of informal supervision include caring messages in private chats, observations on followers from leaders. "Frequency of supervision" is how often the supervision takes place, at what intervals. "Strictness of supervision" reflects whether the supervision standard is high or not, and whether the punishment is severe in case the follower fails to meet the supervision standard. "Approach of supervision" is about how the supervision is carried out, it can either be instructive, meaning the leaders, or supervisors assigned by the leaders, give direct instructions on the behaviors of followers; or it can be supportive, meaning the leaders or supervisors cares about the emotions and feelings of followers, and serves as a resource and emotional supporter. These six 2nd order themes form another aggregate dimension, "Characteristics of Delegation & Supervision Behaviors", describe characteristics shaping the delegation-supervision balance.

1st order concept	2nd order theme	Aggregate Dimensions
"When the problem grows too complex and hard to deal with, then I become very cautious about delegating more interns."– N, CEO	Choice of Delegated Person	Characteristics of Delegation & Supervision Behaviors
While all employees are experienced and with higher education degrees, the leaders could pick more to delegate		
"...only me is delegated more because I have a close relationship with the boss."		
Followers with more adept skills, and past experiences are delegated more		
Leaders delegate by handing over control over critical resources to followers, and providing resource support. This is impacted by the routineness of tasks and complexity of problems.	Approach of Delegation	
Some leaders delegate by cutting down the frequency and strictness of supervision, if the relationship between leaders and followers are close.		
Leaders shift responsibilities to followers without providing support, if the tasks are novel.		
"Handed over the responsibility... because she's optimistic, and can perform well under pressure"		
For followers who are sensitive and emotional, not handed too much responsibility		
"since they don't have work experience... We use KPIs to supervise and monitor..." – C,CEO	Supervision Formality	
Weekly meetings are held, as a rule in the company. Leaders prefer this form of supervision, when the task is novel and problem is complex.		
No regular meetings. Leaders check through private chat with employees		
Employees are asked to write daily reports and hand them in, if they are not motivated.		
"We have meetings weekly to check the progress. If we face difficult problems, we might hold the meeting every day" – K, CEO	Frequency of Supervision	
"A monthly review is carried out to check whether it meets KPI." – O, CEO		
Some firms do not conduct supervision meetings, since the employees are self-motivated and highly competitive firm culture allows for this.		
Firms host supervision meetings more often when the followers are not motivated.		
"I get criticized for not meeting the standard, when the task is very crucial. it makes me stressed out" – S, Frontline Worker	Strictness of Supervision	
Some leaders care about the reason and comfort followers who fails in supervision and are fragile and weak in mentality.		
"We don't need employees who is incapable and fails to meet KPIs" – K, CEO		
Employees who fail to meet KPI are criticized assigned other tasks, in highly competitive firm		
When employees report a high level of stress affecting their motivation, the leaders will take less strict supervision by not giving punishments.		
The leader instructs how the task should be done directly if the follower is inexperienced.	Approach of Supervision	
"When I entered the firm as an intern, there were senior managers instructing us." – S, frontline worker		
Leaders will comfort the followers when they face difficulties, especially when the follower is motivated and have a sense of attachment to the firm.		

Table 3 Data Coding Part II : Characteristics of Delegation & Supervision Behaviors (Source: Own work; 1st order concepts without a quotation mark are from observations)

6. Analysis

Having finished the data coding, we examined the relations between delegation-supervision behaviors, and the affecting factors. The analysis covers what factors and how they affect the following aspects: the choice of delegated person, the approach of delegation, supervision formality, the strictness of supervision, the frequency of supervision, and the approach of supervision.

6.1 Factors affecting the Delegation and Supervision Behaviors

6.1.1 Factors affecting the choice of delegated person

The term "the choice of delegated person" refers to whom to delegate to in empowerment of *kaizen*. it is not necessarily that the leaders should treat each follower the same when delegating, rather, they can have a either strict or loose standard choosing the follower to delegate individually. Under some extreme cases, not delegating to any follower is also possible (Firm H), and conversely, cases where every follower is delegated also exist (Firm G). From the initial and follow-up interviews, factors affecting the choice of delegated person are examined and listed below, including:

a. **Education Background and Past Experiences of followers**
   As followers have a higher and more related education background, and have more past experiences, leaders are more likely to delegate them. Interviewee J (CEO) stated the relationship between the choice of delegated person and past experience as, "*Employees have complete autonomy in their respective work areas and routine business does not need to be reported, since each consultant in the company is an expert in handling business within their personal field."* The logic behind is that, for followers with relevant past experiences, they are equipped with a template on how to deal with similar problems which they have come across in past experiences. Hence, the leaders are more assured to delegate them. As for how education background affects the choice of delegated person, we find out followers with degrees in their professional field are on a higher level of delegation, from our observations in firm A, F and I. For example, interviewee I is the only person in the firm who has obtained a

master's degree in digital marketing, so she was delegated to handle the online advertisement department.

The finding follows the situational leadership theory. For followers with more past experiences, they are considered as being capable for the work, meaning their follower developmental level is at least R3, which shows a requirement for a more delegating and supporting style of leadership, according to the situational leadership theory. Hence, followers with more past experiences can be considered as a possible choice to delegate to.

For a firm where all employees are experienced and with higher education degrees, the leaders could pick more followers to delegate. However, for most of the interviewees, they reported the followers in small startups are usually "highly educated but inexperienced". In this situation, the leaders in small startups should be especially cautious about deciding whom to delegate, and hence past experience plays a more crucial role.

b. **The Motivation of followers**

According to Imai (1986), motivated followers are followers who feel confident in their work, are enthusiastic about tasks, and align their goals with the team's goal. The motivation of followers plays an important role in deciding whom to delegate. Compared to unwilling and unmotivated fellows, followers who are more motivated and confident (at R2 and R4 in follower readiness) are on average more passionate about their work and generally have a benevolent attitude towards *kaizen*, which fosters leaders' trust in their incentive. As said by interviewee I (frontline worker), "*The chairman, he does not want to engage himself into this kind of work, but I am passionate about it. I view this business as my own business so I want to make it better… he (the chairman) handles the improvement of social media running all over to me, and I can decide in the whole process.*" Her desire for making contributions to the organization persuades the leader to believe in her good intention, so that the leader could rest assured, handling the decision right of making plans, implementing improvement plans and standardizing the improvement to her without worrying about her leading the improvement task in a wrong direction, or at her own interest. In this case, for followers with high motivation and positive incentives, the leaders can delegate to them by handing over responsibilities and giving them decision-making rights in making improvement plans.

For less motivated and unwilling followers, the leaders and managers are generally reluctant to delegate them. The leaders could doubt the incentive of followers and hence exclude them from the list of follower delegation. For example, interviewee E (CEO) put it like this, "I *always doubt their loyalty and incentive… I am kind of reluctant to delegate them…"* The fear of unwilling and unloyal employees distorting the direction of improvement plans make it reasonable for leaders to be cautious about delegating decision rights.

One notable thing to be mentioned is that, if leaders still decide to delegate less motivated and unwilling followers, they set boundaries and sometimes interfere and take some supervision practices. This is also in line with situational leadership theory, since unwilling followers and those who feel unsafe at the workplace, needs a more instructive and guiding leadership style, so leaders need to be cautious about delegating to them.

c. **Firm Culture**

The culture of a firm affects the choice of delegated person, because it is appropriate for leaders to delegate meeting the expectations of followers, hence to improve work efficiency. Some interviewees reported a more democratic and equal culture in their firms, where every employee is respected, and they will expect their voices to be heard, and once they are delegated, they could perform an improved work efficiency. As interviewee G said in the interview, "we *are a democratic, equal, and friendly company… delegation is a very reasonable requirement from our employees.*"

Some other firms have a rather competitive firm culture, where employees with best performance are praised and rewarded, and there is tense competition between employees. Firms with that competitive culture are also suitable for enlarging the range of delegated people, since followers could utilize the delegated resources and rights to further improve their performance, serving as a catalyst.

d. **Different Stages in the PDCA Cycle**

The requirement for the choice of delegated person varies in different stages in the PDCA cycle. Compared to the "Do" stage, where involvement of all followers in the production, or work process line is needed, the "Plan", "Check", and "Act" stage mainly engage top to medium level of management. In these stages, leaders and managers prefer to limit the delegated person to a small group, since making

improvement plans, and deciding whether to keep or discard the improvement task do not need the active participation of a wide range of people. A major concern for delegating in the "Plan" and "Check" stage is that decisions made in these stages could directly influence and shape the direction of the improvement, thus any mistakes may lead to failure of *kaizen* and a waste of resources at a high possibility. Compared to followers, especially frontline workers, leaders and managers have a more comprehensive scope, so it is reasonable to restrict the range of delegated persons. As interviewee B (CEO) said, "*I do not let them make decisions on how to improve, nor decide whether to keep the improvement task as a routine on my behalf. I fear they cannot tell what is really beneficial, and I cannot afford the loss…but I do not see any problem delegating them when implementing the plans…they can handle the issue themselves.*"

While in the "Do"stage, leaders prefer to delegate more followers because they do not want to bother themselves with minor issues which could happen in the "Do" stage, believing followers have the capability to handle these details. Similar opinions are observed in the follow-up interview with L (CEO), "*we have an established work process when we perform the improvement tasks, and employees could be autonomous as much as possible within the scheme…for example, we split the task into pieces and each employee handles one of these parts, some milestone targets are set and checked at weekly meetings…and they have a guideline on how to report and solve problems once they arise…*". He attributed the choice to the nature of the plan implementation process, that it is rather standardized and controllable, with abundant past experiences to learn from, so that they could establish a mature system, guiding the behaviors of delegated followers.

6.1.2 Factors affecting the approach of delegation

Leaders can take different approaches when delegating followers, these approaches can include: delegating responsibilities; grant followers with resources; delegating decision-making rights, and giving followers autonomy. Some factors are identified in the interviews that could affect the approach of delegation, which includes:

a. **The complexity of the problem**

Most interviewees reported that as the problem grows more complex, the resources they grant followers with would first increase, and then decrease after the peak. For complex problems, more human resources and time should be devoted to sorting out the pain point of the problem, and they might require more financial resources when actually solving these problems. However, when the problem grows even further more complex, the leaders then become more cautious about granting followers with resources, as they are skeptical about whether the followers are able to utilize resources at highest efficiency and in the right direction when facing too complex problems.

Interviewee A, B, J, and P all mentioned that they are more willing to give followers more control on resources, including financial and information resources when facing more complex and difficult problems, to overcome the higher obstacle. As interviewee N said in the follow-up interview, "*When the problem grows too complex and hard to deal with, then I become very cautious about delegating interns with resources. I always worry about them… (they are) too young to handle these resources, for example, they do not know how to divert money to solve the key point, they could not even find them…then it (money, financial resources) is wasted.*"

b. **The routineness of tasks**

Leaders are willing to provide resource support as an approach of delegation, if the improvement tasks are routine. As the task is routine, there should be abundant past experiences to learn from, and enough mature routines to follow. Hence, it is not that risky to delegate followers with resource support, as the prospect of problem solution can be predicted and the behaviors of delegated followers can be restricted in an established scheme. The example of interviewee P (CEO) proves this logic, "*I feel safe to let them (followers) to ask for as much resource as they want, if the task is routine. I know it is very rare that something goes wrong."*

On the contrary, if the task is special and the problem to be solved is too novel, the leaders are not willing to provide resource support, rather, they would hand more responsibilities to followers. Interviewee P (CEO) also said in the interview, "*... but if the task is too challenging, I want them to take more responsibilities by contributing constructive ideas, not giving them many resources. We cannot afford the loss.*"

Especially considering the strict resource constraints faced by small startups, it is reasonable for leaders to be more cautious when choosing the approach of delegation.

In this kind of situation, however, the intelligence and capability of followers values more, and that is the reason why leaders would hand more responsibilities to them.

c. **Follower personality**

This is a special factor that impacts how leaders should take the approach of delegation, since the personality of each follower is idiosyncratic, hence it is a requirement for leaders to treat each follower separately and individually. For followers who are optimistic and with a strong spirit, it is appropriate to delegate them by handing the leadership of a task out to them, distributing responsibilities. As interviewee I (frontline worker) said in the interview, her leader handed over the responsibility of community management to her because she is optimistic, and can perform well under pressure.

Meanwhile, for followers who are very sensitive and emotional, it is suggested not delegating responsibilities, rather, giving them more autonomy and creating a cozy working environment suits them better. As interviewee A (CEO) said, "*I know they are fragile, so I just ask them to do their own job freely, and sometimes I will even praise them for their progress.*" This is to prevent sensitive and emotional followers from breaking down under great pressure once handed too much responsibility. The follower personality as a factor affecting leaders' decisions on delegation-supervision behavior can also be explained by situational leadership theory, where treating followers individually, not collectively is a requirement for leaders.

6.1.3 Factors affecting the choice of level of supervision formality

a. **Past experience**

Past experience is an important dimension when it comes to the level of supervision formality. Employees with more past experience usually possess a higher level of skills and knowledge, compared with those junior employees. The employees with extensive industry experience are typically familiar with operational procedures and workflows. Consequently, they have the judgment to make appropriate decisions and can effectively solve the problems that occurred.

Such experienced employees have a sense of control over the tasks and are usually trusted in the team. They can complete their work independently without much intervention from their leaders. Therefore, supervisors may rely more on informal supervision, such as occasional inquiries about the work, which reflects a trust in employees' personal capabilities. Guidance or confirmation are only needed at critical moments. Just as interviewee C (CEO) has mentioned, *"Tasks are allocated according to team members' specialized knowledge, and less supervision shall be provided to those who are more experienced."*

Such supervision typically takes place in more informal settings through occasional progress checking, instead of formal meetings and direct intervention of work. This informal supervision can also be indirect, like checking project progress while listening to reports during meetings, instead of scheduling specific supervisory sessions. As interviewee D (CEO) said, *"... is trusted with decision-making regardless of their role, since they are all highly capable. If someone just encounters a problem, he or she will actively seek help."* For those experienced employees, too much formal supervision may be considered as unnecessary intervention, which will possibly hamper their motivation or enthusiasm.

On the other hand, for employees with little (or no) experience, and who may lack the necessary skills or knowledge, they may face a higher risk of making errors, and therefore, it becomes hard to trust that they can complete tasks independently and effectively. More formal supervision methods are needed. Methods such as routine check-ins for work, daily or weekly reporting are commonly mentioned in the interviews. As interviewee K (CEO) pointed out, *"I do not usually have regular formal meetings with managers at all levels. Generally, they report anything they encounter. But as far as I know, there are weekly meetings within each group, especially those new hires. Each group has its own reporting system and schedules."* Another interviewee A (CEO) confirmed this view, "*As startups, we do not dare to allow interns to participate in the business model improvement, since they are still students and have not had any full-time work experience yet."* To make the work more controllable and the responsibility more traceable, formal supervision is usually adopted. Such relatively inexperienced employees rely more on clear guidance and a concrete supervision structure.

It is also mentioned that leaders tend to choose hands-on teaching and process follow-up to supervise. As interviewee C (CEO) said*, "They still need some supervision, since they do not have work experience. We have a tutor who guides them very kindly and smartly. We use KPIs to supervise and monitor."* It is common for senior employees to guide newcomers. A culture of coaching and mentoring is also prevalent in the startups interviewed. Sometimes experienced employees take the initiative to support, while in other cases, leaders designate specific experienced employees to guide juniors. The purpose is to make new employees familiar with the tasks as quickly as possible and avoid mistakes caused by lack of proficiency at work.

b. **Relationships between Leaders and Followers**

Relationships between Leaders and Followers is also a dynamic factor which can impact the level of supervision formality. When the relationship between leaders and employees is based on mutual trust, respect, and understanding, employees are more willing to proactively report work progress. Supervision usually occurs via informal feedback or suggestions from leaders without formal supervision.

Conversely, if the relationship between leaders and employees is more intense or distant, the foundation of trust will be weaker. As interviewee E (CEO) mentioned, "The teachers are *very talented people, and I believe they can teach well. However, I always doubt their loyalty and incentive, somehow, I fear they will abandon me. So that is why I made very strict rules to supervise them…such as, no private contact with clients." "I collaborated with several different teachers, and those I trust save me a great deal of time and energy in supervision, as I am confident, they would not secretly contact the clients. In contrast, I am much more worried about teachers who seem less reliable or with whom I have had previous conflicts."* It is evident that the primary factor influencing the level of supervision formality is not merely the employee's ability, but the relationship and level of trust between the employee and the supervisor.

In the meanwhile, in those weaker relationships, followers tend to not take initiative to report due to the fear of criticism, judgement from the leaders or even more severe consequences. As interviewee R (Frontline worker) mentioned, *"My colleagues and*

I… used to have meetings to discuss and vote to make collective decisions. However, my boss does not trust us so he will come to our meetings sometimes to supervise us. Gradually, all our reporting processes have been integrated into that meeting."
Leaders therefore need more formal supervision to ensure the quality of the work and ensure that tasks can be completed on time. The frequency of supervision can also be high, and this supervision is even stricter.

c. **Different Stages in the PDCA Cycle**

Different Stages in the PDCA Cycle can also influence the choice of supervision formality. The "Plan" stage is the initial phase of the improvement, typically characterized by strategy formulation, goal setting and process design, which will have a decisive significance to the overall direction of the company. In the "Plan" stage, leaders and managers tend to have a more formal supervision, to ensure that planning does not deviate from the company's vision and mission and that all employees are on the right track. As interviewee A (CEO) said, *"...especially when refining the business model, we simply cannot let interns operate unsupervised. We consider it not as optional, but essential."* The "Do" stage emphasized more on hands-on operation and execution. Supervision is needed but relies more on daily operation and internal communication within the team. Over-supervision can hamper initiative of the employees. Therefore, leaders often use a combination of informal and formal supervision to maintain balance. The "Check" stage, on the other hand, is the supervision itself, where formal supervision is required to ensure the performance targets are met, KPIs are accomplished and goals remain aligned with the framework established during the "Plan" stage. In the "Act" stage, where adjustment and optimization is required, leaders and managers rely more on the combination of formal and informal supervision. It is necessary that the process of standardization is under control of the top management, especially when new norms and regulations are applied.

6.1.4 Factors affecting the Strictness of supervision

a. **The complexity of problems**

The complexity of problems is a key factor influencing the strictness of supervision. Generally, the more complex the problem, the stricter the level of supervision will be. If the problem is highly complex, it usually means increased uncertainty and greater risks. A stricter supervision system can ensure better compliance, proper execution and prevent potential problems. As interviewee M (CEO) mentioned, *" These interns are required to report directly to the CTO, as the tasks they are responsible for—such as building foundational models is highly essential to the entire business operation, and can influence the overall direction of the app. It is crucial to ensure they remain on the right track and that their work is aligned with the vision and strategic intentions of the management team. Therefore, only weekly meetings are not enough."* To ensure that those tasks with high technical or implementation difficulty can be effectively implemented, the supervision is often strengthened. More frequent reporting, more detailed audits, tighter cross-departmental coordination, and stronger process control is usually observed in the interviews.

On the other hand, if the task itself is relatively simple and easy to deal with, the strictness of supervision tends to be lower. In such cases, the leaders have more trust in the employees, and therefore strict supervision becomes uncommon. As interviewee G (CEO) mentioned, *"For many tasks, I give them a high level of autonomy. I do not need to supervise them strictly, since the tasks are not so complicated to finish, and I believe that they have the capability to handle them well."*

b. **Routineness of Improvement tasks**

Routineness of Improvement tasks is another essential influencing factor. If an improvement task is highly routine, such as regular optimization, a proven successful solution usually already exists so that the employees can follow. Since there is already experience in execution, the risk is lower, and the supervision strictness is accordingly lower. In such cases, companies can rely on standardized procedures and past experience to monitor execution, so tutoring and coaching can become effective methods. As interviewee K (CEO) mentioned, *"We do provide coaching sessions for workers, especially those in the packaging workshop, as their tasks are highly repetitive, which allow anyone to quickly learn through such guidance… the supervision for the manufacturing workshop is not as important as the manufacturing*

one." From this example, we can see that if the task is routine enough, less strict supervision may be preferred, which can also reduce the cost and time of supervision.

However, if the task is novel and highly non-routine, such as digitalization, organizational transformation, or innovation, more supervision is needed to ensure that the employees follow the right direction. Suitable resources can also be allocated properly in this way. Interviewee K (CEO) also mentioned, *"The management collaborated closely with the design and marketing team, the marketing team researched on the latest trend for crafts on social media and gave inspiration to the design team. After having several meetings with me, we will finally make consensus on what kind of new product will be designed and manufactured for the new season. This process requires lots of close communication"* For this non-routine task, the leaders may prefer a relatively strict level of supervision to avoid misunderstanding, ensure the compliance of the top-level instruction, and mitigate potential risks.

c. Different Stages in the PDCA Cycle

Different Stages in the PDCA Cycle also impact the strictness of supervision. In the "Plan" stage, where the core task is setting goals and paths, the strictness of supervision is the highest among all these three stages. Considering any misunderstanding in communication or mistakes can have a negative impact, potentially triggering a chain reaction, which may in turn affect the subsequent stages of the PDCA cycle. In the "Do" stage, the strictness of supervision is somehow lower than in the "Plan" stage. There is already a plan to guide, and appropriate adjustments and flexibility should be allowed during the execution process, to increase the working efficiency of the employees. However, this relatively loose supervision should also be complemented by regular check-ins and observations; also feedback is needed when necessary. In the "Check" stage, the strictness of supervision is typically in the middle, not as high as in the "Plan" stage, but not as low as in the "Do" stage. To evaluate whether the set standards and goals are met, the supervision should be highly consistent to ensure fairness and rationality. In the "Act" stage, where the plan needs to be adjusted and standardized, open discussion of the improvement process is essential and innovation is encouraged. Supervision during this stage tends to be more flexible.

6.1.5 Factors affecting the Frequency of supervision

a. Complexity of problems

Complexity of problems can be one of the key factors impacting the frequency of supervision. In one of the interviews (the mobile app company) that we conducted, we noticed that in the initial stage of the business, the CEO has adjusted the communication frequency from a weekly meeting to an everyday morning report session, just to clarify the tasks that need to be completed each day more efficiently. This way, employees do not need to wait for responses from colleagues and could move projects forward as quickly as possible. The reason behind is due to the task characteristics of being both complex and challenging. Therefore, more frequent communication and supervision are often required to ensure the project executed smoothly. On the other hand, for those simpler tasks, less frequent supervision is usually provided, as supervision also requires time, effort, and even financial resources. For tasks that are relatively less complicated, supervision overflow can be considered as a waste of resources.

b. **Routineness of Improvement tasks**

Routineness of Improvement tasks is another essential influencing factor. From interview G (CEO) *"...the KPIs as supervision methods would be different based on if it is routine improvements or not."* Routine tasks are characterized by high predictability, high repetitiveness, and low risk. There are usually existing standard procedures so that every employee can follow. In this case, employees can complete the tasks with less guidance or supervision. Just as interviewee R (Frontline worker) said, "*Routine business operations do not require reporting.*" The non-critical tasks are usually checked and reported to the leaders in a centralized manner, and the leaders will only give feedback at the reporting meetings. As long as no major mistakes occur, the leaders will generally not over-supervise in normal circumstances.

On the other hand, the more innovative (not that routine) the problem, the greater risk, and the more information is needed, more unpredictable consequences would occur. In order to minimize risk, ensure correct execution and prevent critical failure, leaders tend to increase the frequency of supervision and adopt more stringent standards to discover and correct the problems in advance. This was further proved by interviewee

T (Frontline worker), *"We need to generate something innovative… but at the same time, there are more supervisions."* While dealing with more innovative solutions, such as new business ideas, new product development, organizational transformation, more frequent supervision will be provided, to ensure all the employees stay on the right track. No matter how much delegation will be granted to them, more frequent regular checking and meetings are usually held and leaders tend to strictly review the deliverables of each stage.

6.1.6 Factors affecting the approach of supervision

a. **Motivation of followers**

Motivation of followers is one of the most important factors impacting the approach of supervision. For those employees with high motivation and strong self-incentive, external supervision is often unnecessary, since they have their self-initiative to do their tasks independently. Supportive supervision approach will then be preferred. This type of supervision can be considered a form of self-regulation, as the employees are motivated enough to finish the task effectively and efficiently. As interviewee F (frontline worker) mentioned, *"After this talk and he knew how passionate i am, my boss just said, 'okie, then it is up to you'… and the boss was happy about it, then he decided it should become a new rule for all branch stores…"* We can see that the employee himself's incentive level can, in turn, impact the approach of supervision from the leaders.

However, on the other hand, those employees who lack self-drive need clearer guidance and supervision to complete tasks. Leaders often adopt instructive supervision, just to avoid deviations due to lack of motivation. As interview C (CEO) said, "*They should be self-driven, and motivation is the most important. Only in this way can they adapt to our fast-paced working environment; otherwise, constant monitoring and guidance would be required, which is not that efficient."* It is also noticed that the approach of supervision changed while the motivation level increases. As interview E (CEO) said, "*Sometimes, I intentionally encourage a bit of comparison among the teachers. Since our salary structure is entirely performance-based... And when that motivation arises, strict supervision becomes less necessary.*

Interestingly, they also start communicating with me more frequently and proactively."

b. **Firm Culture**

Firm Culture is another important factor. In the interviews that we conducted, we have found that the firm's culture itself can influence the management structure, which will in turn impact the approach of supervision. From the interviews that we conducted, the management structure of the interviewed company can be classified as centralised and decentralised. Here, the former can be referred to as a hierarchical management structure, while the latter usually means a more flat structure.

Less democratic companies tend to rely on more instructive supervision. Leaders give instructions, while employees are only expected to follow them. The leaders then monitor performance regularly to ensure it meets established standards. Leaders need to exercise more detailed control over employees' performance. As interview A (CEO) stated, *"I just want them to finish the tasks and orders that I give them, and we management team will regularly check if the tasks are done as we wished, or if standards are met."* Therefore, instructive supervision is usually encouraged, since the task allocation or supervision process is formal and strict.

The supervision is also centralized within the top management team, while limited involvement from frontline workers is usually involved in how the supervision is structured. The frontline workers usually serve as executors, who usually follow the instructions made by their line managers and report directly to them. For instance, the service-oriented company G, which provides financial and tax-related services for businesses demonstrates a high hierarchical and centralized corporate culture. With approximately 15 employees, the company operates under a clear responsibility system. Individuals operate in their own work domain and are held accountable for their own roles. Intervening in others' work may cause inconvenience. There are clear and well-defined reporting lines, and the supervision method is usually instructive, such as using KPI. Besides, the company shares a layered supervision system, which can also reflect a top-down management structure.

In contrast, a flat management structure allows employees to have more autonomy and decision-making space, so leaders are more inclined to adopt supportive

supervision correspondingly. The leaders help employees achieve their goals by providing emotional support and motivation, while giving employees more freedom to decide how to complete tasks. "*Since we have a very flat and collaborative working environment, everyone is trusted with decision-making regardless of their role. We do not supervise but rather have an equal dialogue with every employee in the company."* In this case, the leader may use a more supportive supervision approach, such as regular brief exchanges to discuss work progress and problems encountered. The leader plays more of a role in listening, encouraging, and guiding.

The employees who are responsible for the project or task are expected to resolve issues independently and are entrusted with more autonomy. Since the management structure is flat enough, employees are also encouraged to communicate directly with management and even the CEO, without concerns about hierarchical barriers, since in the hierarchical culture it can be considered as overstepping boundaries. It is also worth mentioning that some companies even take the cultural factors into consideration at the stage of the recruitment process. Employees and interns winning the position in the recruitment process usually recognize and resonate with the firm's culture.

A flat corporate culture is usually accompanied by a democratic one, which can cultivate a structure of collective autonomy. According to CFO & COO of firm H, *"We are a democratic company and people are not alone, they can always seek support from no matter the management team or their colleagues."* Furthermore, corporate cultures that adopt flat organizational structures tend to promote alternative forms of supervision, including reverse supervision or collective decision-making. Another example comes from the CEO of Company K, who shared, *"Our employees have a very high awareness of labor rights protection, so we utilize that culture and let frontline workers supervise their managers in return."* This form of reverse supervision exemplifies managing upward, where employees take the initiative to influence and support their managers. Managing upward turns passivity into proactivity. From a leadership standpoint, being driven forward by employees makes a leader's job even easier. In such companies, leaders are more inclined to provide good opportunities to those who proactively communicate, take initiative in one's work, and are effective in reporting their progress.

6.2 How factors affect the Delegation-Supervision Balance

Having identified the affecting factors that impact the delegation and supervision practices, in this part we conclude how these affecting combined, fit in the applicable conditions of each type of delegation-supervision balance, and impact the choice of leaders.

6.2.1 Path 1

As identified in 6.1.4 and 6.1.5, if the improvement task is routine, and the problem is not complex, it is appropriate for leaders to decrease the frequency of supervision, and take a less strict attitude of supervision. This means leaders do not need to interfere much on followers' work, and exert less influence. For example, they may change the daily meeting to a weekly meeting, or even abort the meeting session and take a more soft approach (such as asking about the work in private). Most importantly, as identified in 6.1.3, supervision formality can be decreased, if the leader-follower relationship is intimate enough and there is enough trust between them. Also, followers with abundant past experiences are suitable for receiving less formal supervision. As informal supervision is the most significant characteristic for assumed delegation, these factors, including abundant past experience of followers, and intimate leader-follower relationship with trust are the most critical criteria for applying assumed delegation. 6.1.1 also analyzes how different stages of PDCA cycle affects the choice of delegated person, and it shows that leaders can delegate to more people in the "Do" stage, and it is also possible to delegate to all followers in the "Do" stage.

Considering these factors, leaders can apply one form of delegation-supervision balance , if the situation meets the following conditions: improvement task is routine; problem is not that complex; followers are experienced and motivated; leader-follower relationship is close and there is enough trust between leaders and followers. To reach this delegation-supervision balance, the leaders do not need to specify the field, responsibilities, decision-making rights, and set boundaries for followers they intend to delegate. Rather, the leaders just need to provide resource support, and acquiesce in the work of followers. The followers will assume they are delegated in the process and autonomously perform improvement tasks on their own.

With regards to supervision, there is no need to make supervision too formal. it is not necessary to exert supervision on followers.

6.2.2 Path 2

Since the requirement for delegation and supervision behaviors varies in different stages, in "Plan", "Check", and "Act" stages, the most suitable delegation and supervision behaviors will be different from Path 1, even if other conditions are the same. According to the findings in 6.1.3 and 6.1.4, compared to in the "Do" stage, leaders need to exert more formal and strict supervision behaviors on followers. However, since the followers are experienced and there is high trust between leaders and followers, the supervision does not need to be extremely formal and strict. The most distinct difference with Path 1, is that the choice of delegated person should not be as broad, since making improvement plans, making judgements on the performance of improvements, and integrating the improvement measures into work routine propose a much higher requirement on the capability and scope of followers. In most practical cases, only top to medium level managers are engaged in the "Plan", "Check", and "Act" stages.

6.2.3 Path 3

When the task is novel and the problem is complex, followers are well-educated and experienced, and leader-follower relationship is intimate, close, and trusted, and the *kaizen* is in the "Do" stage, the leaders can take Path 3, where leaders delegate to a selected group of followers, delegate by delegating responsibilities, giving autonomy in professional fields, giving followers control over resources and decision-making rights, exert formal, not strict, not frequent, supportive supervision. While in the 6.1.4 and 6.1.5, a relationship between routineness of task, complexity of problems and the frequency and strictness of supervision is identified, when the follower has abundant past experiences and are trustworthy, this factor can offset the impact of the novel task and complex problems, meaning that the leaders can take a less frequent, informal, and less strict kind of supervision towards experienced and trustworthy followers, compared to practices in partial delegation. Nevertheless, the impact of the novel task and complex problems still exist, since the *kaizen* is at a higher risk of wasting human and financial resources in case of failure, which is not affordable for small startups with more strict resource constraints. Hence, the leaders cannot take as loose delegation-

supervision balance, where the delegation is conveyed passively and a very low level of supervision is exerted from the leaders.

The most critical part for leaders choosing this path, is what kind of tasks to assign to selected followers. A common practice is utilizing the professional advantages of a certain follower, letting them have higher autonomy in the field they are familiar with and have past experience in. For example, in the interview with interviewee B (CEO), he said, "*my partners are very skilled people in their own field, (B1) is experienced in accounting and (B2) is an expert in IT issues. Then I give them full autonomy in these fields, but I also say, you can only decide on things within your own field, not interfering with other fields.*" A notable suggestion for leaders is that the autonomy right should have boundaries and rules and regulations should be carefully made by leaders and apply in *kaizen*. With regards to supervision, the leaders do not need to exert as frequent, strict, and supervision, while an extent of supervision is still needed. The leader can take a supportive supervision approach, for example, asking the delegated person through private chat, about their feelings and emotions when dealing with assigned tasks.

6.2.4 Path 4

When other conditions are identical with conditions in Path 3, except for the stages in the PDCA cycle is "Plan", "Check", or "Act" stage, it suits the application of Path 4. In the "Plan", "Check", and "Act" stage, it is not suitable for leaders to hand over the full decision-making rights, rather, the leaders can delegate by giving followers control over resources, and delegating responsibility. As regards to supervision, since "Plan", "Check", and "Act" stage are critical to the direction of *kaizen*, the leaders need to exert more formal and strict supervision on followers compared to in Path 3. Compared to Path 2, where the tasks are routine, and problems are not complex, in Path 4 there's a higher requirement for the selection of delegated persons. Among the top and medium level of employees, leaders need to carefully select followers that are more capable and trustworthy to engage in the decision-making process in the "Plan", "Check", and "Act" stage.

6.2.5 Path 5

As identified in 6.1.1, leaders have a tendency to delegate to a smaller range of followers, when followers lack past experience and related education background, and when they are less motivated. In this situation, as identified in 6.1.6, the leaders may take an instructive approach of supervision. Also, when the improvement task is too novel and the problem to be solved is too complex, the leaders may delegate followers less through the handing over control on the resources, and more by delegating responsibilities, as analyzed in 6.1.2. The supervision can shift to a more strict and more frequent type because of the novel task and the complex problem, as analyzed in 6.1.4 and 6.1.5. When the relationship between leaders and followers is too far and they do not trust in each other, whether the leader is skeptical about followers' ability or incentive, or the follower does not trust in the offerings from the leader, it is suggested to take a formal approach of supervision, as suggested in 6.1.3.

To reach this kind of delegation-supervision balance in the empowerment process of kaizen, a leader of a small startup can show the following delegation and supervision behaviors: carefully choose the person who you would like to delegate; mainly delegate responsibilities to followers and keep the control over resources, meaning less autonomy is given to followers in the delegation process; exert existence in the supervision and take a formal, frequent, instructive and strict form of supervision. This means that leaders monitor the work of the followers regularly and can interfere when they spot any mistakes happening or the improvement task is heading in the wrong direction.

In conclusion, when the task is novel, the problem is complex, the follower is undereducated and lacks experience, the follower is not motivated, the relationship between leaders and followers is not intimate, lacks trust, and the stage in the PDCA cycle is the "Do" stage, the leaders face the narrowest choice of delegated person. The leaders can delegate by delegating responsibilities and giving autonomy in assigned tasks, and avoid delegating by handing over control over resources and decision-making rights, and exert formal, strict, frequent, and instructive supervision.

6.2.6 Path 6

When the leaders face the same affecting factors as in Path 5 except for that the stages in the PDCA cycle is "Plan", "Check", or "Act" stage, the leaders should be extremely cautious about empowering by delegating, since the undereducated, inexperienced, and unwilling

followers have a lower possibility of making correct decisions and performing in the correct manners, and the consequence of making mistakes in “Plan”, “Check”, and “Act” stage is so high that leaders should avoid delegating these followers. Rather, the leaders can empower these followers in the “Plan”, “Check”, and “Act” stage, by launching employee training programs, and making the decision-making process visible to followers where the followers can learn from. Even if the leaders intend to delegate to certain followers under these conditions, much more strict and much more frequent supervision needs to be implemented, as identified in 6.1.4 and 6.1.5 and the autonomy given to delegated followers needs to have a restricted border.

Apart from these 6 paths, follower personality and firm culture also plays a role in affecting the delegation-supervision behavior characteristics to reach delegation-supervision balance. The formality, frequency, strictness, and approach of supervision can deviate according to different follower personalities and firm cultures. If the firm culture is more equal, respectful, and harmonious, then the leaders can give higher levels of autonomy and decrease the frequency and strictness of supervision to fit in the firm culture, shifting the balance towards a more delegating style. For followers with a strong spirit and optimistic personality, leaders can delegate more by handing over more responsibilities to them and exert less formal and less frequent supervision. For followers with sensitive and emotional personalities, leaders can delegate less responsibilities, and provide more supportive supervision, by catering to the emotions and feelings of followers, to ensure that they can perform well.

Path 1	Routine task Not complex problem	+	Educated follower Follower with past experience Motivated follower	+	Intimate, close , trusted leader-follower relationship	+	"Do" stage in the PDCA cycle	= *Suitable For*	Broadest range of delegated persons	+	Not directly delegating responsibilities Delegate by giving control over resources Delegate by giving autonomy and decision-making rights	+	Very rare supervision Informal supervision Not strict supervision Not frequent Supervision
Path 2	Routine task Not complex problem	+	Educated follower Follower with past experience Motivated follower	+	Intimate, close , trusted leader-follower relationship	+	"Plan" "Check" "Act" stage in the PDCA cycle	= *Suitable For*	Limited choice of delegated person: Top-mid level managers	+	Delegate by giving control over resources Delegate by giving autonomy	+	Very rare supervision Slightly more formal supervision Slightly more strict supervision Less frequent Supervision
Path 3	Novel task Complex problem	+	Educated follower Follower with past experience Motivated follower	+	Intimate, close , trusted leader-follower relationship	+	"Do" stage in the PDCA cycle	= *Suitable For*	Limited choice of delegated person: Carefully selected by leaders	+	Delegating responsibilities Delegate by giving control over resources Delegate by giving autonomy and decision-making rights	+	Formal supervision Not strict supervision Not frequent supervision Supportive supervision
Path 4	Novel task Complex problem	+	Educated follower Follower with past experience Motivated follower	+	Intimate, close , trusted leader-follower relationship	+	"Plan" "Check" "Act" stage in the PDCA cycle	= *Suitable For*	Limited choice of delegated person: Carefully selected by leaders	+	Delegate by giving control over resources Delegate by giving autonomy	+	Formal supervision Slightly more strict supervision Slightly more frequent supervision
Path 5	Novel task Complex problem	+	Undereducated follower Follower lacks experience Less motivated, unwilling follower	+	Not intimate, trust-lacking leader-follower relationship	+	"Do" stage in the PDCA cycle	= *Suitable For*	Narrowest choice of delegated person: Carefully selected by leaders	+	Delegating responsibilities Delegate by giving autonomy in assigned tasks	+	Formal supervision Strict supervision Frequent supervision Instructive supervision
Path 6	Novel task Complex problem	+	Undereducated follower Follower lacks experience Less motivated, unwilling follower	+	Not intimate, trust-lacking leader-follower relationship	+	"Plan" "Check" 'Act" stage in the PDCA cycle	= *Suitable For*	Avoid empowering by delegating (Suggestion: empower by training)	+	If leaders choose to delegate: Delegating responsibilities Delegate by giving limited autonomy in assigned tasks	+	Formal supervision Strict supervision Frequent supervision Instructive supervision

Follower Personalities:	Optimistic, with strong spirits	*Suitable For*	Leaders can deviate the supervision in the direction of being less formal, less strict, and less frequent.
	Fragile, emotional, and sensitive	*Suitable For*	Leaders can increase the proportion of supportive supervision; avoid delegating too much responsibilities
Firm Culture:	Competitive	*Suitable For*	Enlarge the range of delegated person Decrease the formality, strictness, and frequency of supervision
	Equal	*Suitable For*	Take more supportive supervision
	Authoritative	*Suitable For*	Take more instructive supervision Increase the strictness of supervision Be more careful about choosing delegated person

Table 4 How factors affect supervision-delegation balance

(Source: Own work)

7. Discussion and Conclusions

The research of the thesis provides 6 kinds of combinations of factors affecting the most suitable delegation-supervision behavior characteristics in reaching delegation-supervision balance, as summarized in Table 4. These 6 alternatives of factor combinations depicts how these factors, including education, past experiences, routineness of task, complexity of problems, different stages in the PDCA cycle, follower personalities, firm culture, follower motivation, relationships between leaders and followers impacts the characteristics of delegation and supervision behaviors to reach delegation-supervision balance. The characteristics are analyzed in the following dimensions: choice of delegated person, approach of delegation, supervision formality, strictness of supervision, frequency of supervision, approach of supervision. Of the nine identified affecting factors, education, past experiences, and follower motivation can be classified as "factors related to followers", which reflect the follower developmental level. These factors related to followers showing impact on the characteristics of delegation and supervision behaviors to reach delegation-supervision balance, is in line with the situational leadership framework. Relationships between leaders and followers shows that leader-follower leadership also plays a role in affecting the choice of delegation-supervision behaviors. Routineness of task, and complexity of problems, and different stages in the PDCA cycle can be classified as "factors related to task characteristics", which reflects the impact of intrinsic characteristics of tasks and requirements from tasks in different stages. These factors are related to the PDCA cycle model of *kaizen*, where each stage poses different requirements for delegation and supervision.

The research of the thesis fits in the theoretical framework of situational leadership, and it verifies the correctness of SL theory. From the semi-structured interviews, follow-up interviews, and observations of the firms, factors with regards to follower developmental level, such as follower motivation, education, and past experiences are extracted and analyzed. It proves that as follower developmental level increases from R1 to R4, the style of leadership should transform from directing to delegating, meaning leaders giving a higher level of autonomy to delegated followers, decreasing the level of supervision and mainly taking a supportive relationship behavior. The finding of follower personality affecting

delegation and supervision behaviors is consistent with the main idea of situational leadership, which is treating each follower differently in specific situations.

The research of the thesis is of theoretical contribution in that it explores to expand the boundary of situational leadership theory, by including more factors affecting the choice of leadership style, such as task characteristics (routineness of tasks, complexity of problems) besides the capabilities of followers. The research of the thesis also specifies the follower developmental level into several factors in more detail, such as the education background of a follower, the past experiences of a follower, and the follower personality. It is also innovative in analyzing the relationships between the possible affecting factors and the delegation-supervision behaviors, and how these factors affect the balance of supervision-delegation, which is not systematically covered by previous research. The thesis also put the focus on small startups, which requires more detailed research in the field of *kaizen*. Most employees reported that the startup faces more strict resource constraints, which is a major consideration for leaders when they delegate followers: they will calculate the potential loss of committing mistakes in implementing improvement plans, and the resource waste if the improvement plan is set in the wrong direction. Since most startups could not afford the cost of making mistakes, leaders in small startups tend to be much more cautious in selecting the delegated person, especially in the “Plan”, “Check”, and “Act” stages.

The research of the thesis is also of practical implication for leaders in small startups when they apply *kaizen*. The research considers the strict resource constraints commonly faced by small startups and takes that as a factor impacting the choice of delegation approach, pointing out that the leaders can be more cautious when the task is novel and the problem is complex, by not taking handing over control over resources as an approach of delegation, since there is a higher chance of resource waste in novel tasks and complex problems, which is not as affordable in small startups.

The research of the thesis suggests how leaders should take steps to reach a delegation-supervision balance considering affecting factors. It also has some other implications. For example, in an ideal state of delegation-supervision balance in *kaizen*, treating each follower individually, rather than viewing them as a whole, can better inspire them and benefit *kaizen.* As analyzed in 6.1, each follower bears different backgrounds of education, past experience, and personal traits, leading to different optimal delegation practices. For example, the

reaction between a follower with a strong mind and optimistic personality and a follower with a fragile mind and emotional, sensitive personalities, can be quite different when they receive strict and instructive supervisions, the latter of which can get depressed and doubt themselves and hence their work performance will be affected. To reach the optimal delegation-supervision behavior, the leaders can delegate the follower with a fragile mind and emotional, sensitive personalities with less challenging and routine tasks, and provide more supportive supervision. There are some other cases in which the experienced, reliable follower expresses strong reluctance towards gaining decision-making rights and would rather stay with the role of implementing assigned tasks. In this case, the leaders should not delegate by giving them high autonomy and decision-making rights, rather they need to take a low level of delegation and a low level of supervision approach. These two cases implies that when considering factors affecting the delegation-supervision behaviors needed to reach delegation-supervision balance, leaders need to treat each follower separately and make adjustments based on the six situations analyzed above. Keeping a balance separately for each follower allows them to perform their best within their ability.

The research of this thesis also finds out the impact of firm culture on the choice of delegation-supervision behaviors to reach delegation-supervision balance, which is also of practical implications for leaders in small startups. Since the culture of small startups are largely affected by the personal styles and the behaviors of founders and core leaders, the importance of sculpturing firm culture is hence highlighted by our research. For leaders who wish to delegate in a specific approach, they can shape their style and management behaviors to foster a corresponding firm culture. For example, if the leader wishes to take a delegation approach with less frequent and less strict supervision, and a high level of autonomy, they can encourage competitive culture by showing a tolerant attitude towards competition within the firm. When the competitive culture is firmly established in the firm, it is suitable to carry out delegation without frequent and strict supervision.

The thesis also has some limitations. First, we intentionally avoid sampling bias by interviewing people from as diverse industries as possible, however, the sampling size is still too small due to the limit of time, only covering 20 interviewees, a large proportion of which is CEOs and managers, meaning that sampling bias might still exist. This can be further mitigated by increasing the sampling size and diversity of interviewees in future research. Second, the mechanisms of how factors affect the delegation and supervision practices, is

currently induced from the words of interviewees and the observations of these firms, which mainly depicts the phenomenon without deep investigations. Hence, further research can focus on how the affecting factors conveys the signal, and shapes the delegation and supervision practices. For example, what signal does the education background, and past experiences of a follower conveys to the leader, that makes the leader include this follower into the chosen delegated persons? Third, the affecting factors are interrelated, some factors might affect the other factors. For example, the relationship between the leaders and followers can be closer, and trust in this relationship can grow, as the followers become more educated and experienced. The interrelationship between these affecting factors leads to an extent of confusion when utilizing these factors to analyze their relationships with delegation and supervision behaviors. This problem can be mitigated by a more structured coding from a consistent perspective in future research. Furthermore, this thesis investigates the research topic in a qualitative approach, which provides foundations for future quantitative research. Future quantitative research can use configuration to better address this problem.

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Appendix A Semi-structured interview protocol

1. Can you introduce the basic characteristics of your firm? How many employees are there in total? Which industry field does the firm belong to? What is the business model and value proposition?

2. What is your role within the company? Do you know the management structure?

3. Is there any application of "continuous improvement" within the firm?
   (Identify the improvement is about routine tasks or demanding tasks)

4. Introducing the PDCA cycle. In different stages, which level of decisions can employees make? / Who has the final decision rights?

5. (For managers and CEOs) Do you provide financial/emotional support in the continuous improvement?
   (For employees) Have you received any financial/emotional support in the continuous improvement?

6. (For managers and CEOs) Which kind of supervision do you give to employees in the continuous improvement?
   (For employees) Which kind of supervision have you received in the continuous improvement?

7. (For managers and CEOs) Do you treat different employees individually, according to their characteristics? If so, what factors serve as your standard of making judgements?

8. What is the culture of the firm? Does it influence the choice of delegation and supervision?

9. (For managers and CEOs) How is the competition within the industry field? Does it influence the choice of delegation and supervision?

Appendix B: AI Usage Disclosure

1. What AI tools have been used and how:
    - ChatGPT: Used for grammar checking, language refinement, and support for paraphrasing. For instance, it helped in rephrasing grammarly incorrect sentences into grammarly correct ones.

2. Contribution to increasing the quality of the thesis:
    - Enhance the linguistic correctness;
    - Improve the academic tone in writing;
    - Increase efficiency in the editing process.

3. Potential risks and measures to reduce the risks:
    - Risk: After using AI to refine grammar, the tone sometimes will seem to be homogeneous or unnatural.
    - How to reduce the risk: After AI supports refining grammar and tone, all the content should be carefully reviewed and inspected again to avoid unnatural writing, misunderstanding or misguiding.

4. Insights gained from using AI tool:
    - The AI tool, if used for improving the linguistic correctness and academic tone, can be effective as a writing assistant, which can in turn enhance writing efficiency. But the use of AI should be documented clearly. The content itself should also be written by the authors. AI should not be used as a content generating tool.