



Universiteit Leiden ICT in Business and the Public Sector

The influence of change and adoption on the flexible budget

How do Change and Adoption methods influence the technical adoption of a flexible budget

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Abstract

Introduction Looking at the importance of budgeting and the weaknesses of traditional budgeting it might be said that a traditional budget does not fit current economy structures anymore. In order for a company to adjust their strategy to current (economic) changes, the budget should be able to be adjusted as well. A flexible budget might help with this as it is based on a flexible budget variance, the difference between an actual amount and the amount allowed by the flexible budget.

Objectives

Business objectives The business purpose of this research is a better and more efficient budget. This will provide better insights in business results and thus will make it easier to steer the company into a better direction.

Scientific objective Change and adoption methods focus on the effect of change in an organisation and support the implementation of changes. These methods will help organisations to engage their employees in order for them to feel more inclined to deliver data for the flexible budget. This research will compare multiple Change and Adoption methods and their similarities to see their perceived impact on the implementation of a new budgeting method and its effect on adapting to new environmental conditions.

Methods This was a literature study, enhanced with survey results

Results Being informed of change is the key starting point of implementing change. By not only informing employees, but also asking for their input on the change is important. Out of 35 respondents 5 answered 'No' when asked if they are asked for their input, this translates to 15% not being involved effectively. These respondents all are in lower functions (employee or lower management level).

The degree to which a person believes that change is useful (perceived usefulness) enhances their job. To move faster to the phases of grief, ... etc. people need to see not only the business advantages of change, but also the personal advantages. 15 out of 35 respondent say they do not see any advantages or only see business advantages, this translates to 42% of respondents not being involved enough for them to perceive personal advantage as well.

Job-level has its main influence in the willingness to pursue goals, as the awareness is often higher in higher management positions. The responses of middle management can be compared to the responses higher management. Looking at lower management and the employee level, out of 23 respondents 10 gave a negative response (no answer at all or simply a 'No'), this translates to 43% of respondents not willing to be involved in change regarding the budget. This might also have to do with this group not seeing the perceived usefulness of a flexible budget. 43% of respondents do not think a flexible budget will affect the financial stability of an organisation.

Conclusion Job level has the highest influence on decision making, age is less important as the perceived usefulness is translated over all age groups. People are more willing to go for the goals if they are involved and see the personal advantages of change. The flexible budget makes employees feel more involved as they perceive they are being involved in the financial process more often during the year. This perceived usefulness increases their motivation to work towards the goal as their sense of urgency is kept higher.

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Chapter 1

Introduction

This chapter will introduce the research background, problem statement, research objective and its questions. It will allow the reader to get accustomed to the subject matter. The goal of the introduction is to provide basic information about the subject and a basic understanding of the research.

1.1 Research Background

The traditional budget has been obsolete for many years now, as the budgeting file is usually extremely error-prone and multiple scenarios cannot easily be worked out. The large Excel file, still the tool of choice for many companies (BI-Survey, 2021), is unclear and therefore not meeting its goal. The traditional (functionality-based) budget, described by Arterian (1998) as 'inefficient, ineffective and incomprehensible', was a useful management accounting model, with focus on command, hierarchy and control. This traditional method has now become incapable of meeting challenges faced in the information age (Hope and Fraser, 1997). The objective, being a reliable budget that is used to control turnover and expenditure while translating the strategic vision into a numerical basis, is insufficiently achieved.

The previously described issue, already mentioned in literature over 20 years ago, is still relevant. According to Davis (1989) the current primary issues in traditional budgeting are quite similar to the ones stated by Davis (1989). Creating a traditional budget takes a long time, is expensive, consumes too many corporate resources, is fixed and inflexible, thus quickly becoming irrelevant. The expectations of management can become cloudy as employees possibly set expectations lower to increase the perceived effort. These weaknesses

may lead to business under-performance (Cardoş et al., 2014).

Change on the other hand can be difficult to implement every change can causes resistance. To activate people and involve them in a new way of budgeting the organisation needs to change its corporate culture. The goal is to change basic behaviour of the employees and to reach optimal results within a short period of time (Laudius, 2021). It is important to create a sense of urgency early in the process by showing employees the why, what and how of a change.

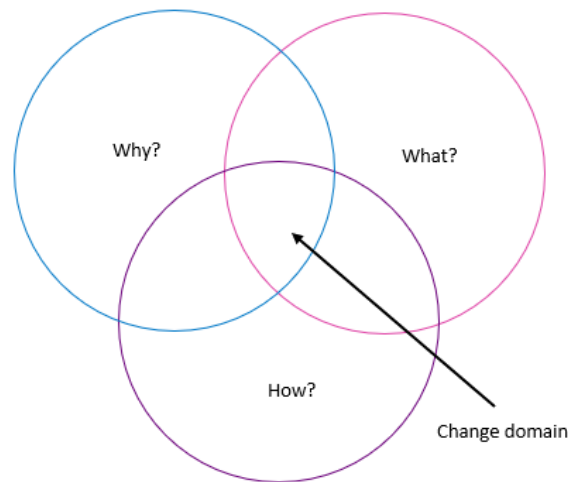


Figure 1.1: Change domain (Laudius, 2021)

1.2 Problem Statement

Budgeting is used by management for planning, coordination at the start of the companies fiscal year, steering during this year, evaluation of activities and business lines, motivational support, evaluation of the staff performance and for supporting the internal control system of the organisation ((Chenhall and Langfield-Smith, 1998), (de With and Dijkman, 2008), (Angelakis et al., 2010), (Al and McLellan, 2011) and (Yalcin, 2012)).

Looking at the importance of budgeting and the weaknesses of traditional budgeting it might be said that a traditional budget does not fit current economic structures anymore. Companies need to be more flexible to excel and need to be able to adapt their strategy at all times. A flexible budget might prove to be helpful as it is based on a flexible budget variance, which is the difference between an actual amount and the amount allowed by the flexible budget. Activities that might influence the budget are the amount in sales, units of output, hours worked, miles traveled, et cetera (Averkamp, 2021). This budget has multiple input moments throughout the year.

For companies to start using a flexible budget organisational change is needed. The key to adoption is that a person has to perceive the idea, behaviour, or product as new or innovative (LaMorte, 2019). This might be done in small steps, discussion of the consequences for all parties involved, using positive reinforcement and by learning more about the process (Marano, 2004). A common way to approach this is by using Change and Adoption methods ((Prosci, 2021), (LaMorte, 2019), (Loucks-Horsley and Bybee, 1996), (Davis, 1989), (Tonissen, 2016), and (Witjes, 2021)).

Change and Adoption methods focus on the effect of change in an organisation and support the implementation of change. These methods will help organisations to engage their employees in order for them to be more inclined to deliver data for the flexible budget. These methods provide a structure and approach to support an organisation to prepare, plan for and adopt a new technology or tool and provides new ways of working to ensure the implemented change is sustained and reinforced. Simply put, it provides a way from A to B while keeping your employees happy and at the same time maximising the benefits of the change (Bandara, 2019).

Before implementing a new change it is important for organisations and its managers to evaluate the result of previous changes within the organisation. Employees might be tired of change, low-skilled, inexperienced, experiencing high work pressure or have a lack of capacity to implement any change.

1.3 Research objectives

1.3.1 Business objectives

The business purpose of this research is to be able to realise a better and more efficient budget. This will possibly provide better insights in business results and thus make it easier to steer the company into a better direction. The implementation process of the, possibly, more efficient budget will be handled as if it were a technical implementation of a specific tool.

1.3.2 Scientific objective

This research will compare multiple Change and Adoption methods to be able to see their perceived impact on the implementation of a new budgeting method and its effect on

adapting to new conditions.

1.4 Research question

"What is the influence of using Change and Adoption methods on the implementation process of a flexible budget?"

1.4.1 Sub-research question

- What is Change and Adoption?
- How can Change and Adoption be applied?
- What is the effect of a flexible budget?

1.5 Scope

This research will focus on the elements of Change and Adoption methods that might impact the selection stage of a new system or tool, in this thesis being the new system, tool or way-of-working for the flexible budget. It will however not go deeper into the effects of Change and Adoption methods when it comes to further impact growth after the system or tool has been implemented.

Next to this, the research will mainly focus on IT Consultancy companies. Different forms of income have different effects on the budget, as IT Consultancy companies mostly earn their money by selling hours.

Chapter 2

Theoretical Framework

2.1 The budget

Budgeting is the method of translating financial resources into human purposes. It is a record of the past as it reflects the victories, defeats, bargains and compromised that have been made to come to this point, and it describes the future as it tries to link (proposed) expenditures with the desired future events (Wildavsky, 1986).

As described in the introduction budgeting is used by management for planning, coordination at the start of the year, steering during the year and evaluation of activities and business lines, motivational support, evaluation of staff performance and for supporting the internal control system of the organisation ((Chenhall and Langfield-Smith, 1998), (de With and Dijkman, 2008), (Angelakis et al., 2010), (Al and McLellan, 2011) and (Yalcin, 2012)).

Neely et al. (2001) lists the twelve weaknesses of budgeting most cited in literature:

1. budgets are time-consuming and costly to put together,
2. budgets constrain responsiveness and flexibility and are therefor often a barrier to change,
3. budgets are rarely strategically focused and often contradictory,
4. budgets add little value,
5. budgets usually concentrate on cost reduction and not value creation,
6. budgets are developed and updated too infrequently, which makes them unreliable in the long run,
7. budgets are often based on unsupported assumptions and guess-work,

8. budgets strengthen vertical command and control,
9. budgets do not reflect the emerging network structures that organisations are adopting,
10. budgets encourage 'gaming' and perverse behaviours,
11. budgets reinforce departmental barriers rather than encourage knowledge sharing,
12. budgets can make people feel under-valued.

A new form of budgeting, the flexible budget, can overcome most of those weaknesses as it is prepared at each analysis period rather than in advance (Franklin et al., 2019). One of the proposed methods to implement the flexible budget is the use of Change and Adoption to overcome time issues, increase responsiveness and overall have the users invested in the method (Marano, 2004).

2.1.1 The flexible budget

The definition of a flexible budget according to Averkamp (2021) is:

"A flexible budget is a budget that adjusts or flexes with changes in volume or activity. The flexible budget is more sophisticated and useful than a static budget.

For costs that vary with volume or activity, the flexible budget will flex because the budget will include a variable rate per unit of activity instead of one fixed total amount. In short, the flexible budget is a more useful tool when measuring a manager's efficiency."

The flexible budget is based on a flexible budget variance, the difference between an actual amount and the amount allowed by the flexible budget. Activities that might influence the budget might be the amount in sales, units of output, hours worked, miles travelled, et cetera (Averkamp, 2021). This budget has multiple input points throughout the year.

The flexible budget adjusts to the changes in the actual revenue levels. The revenues of other activity measures (such as hires or fixed cost) are entered into the flexible budget once an accounting period has been completed (e.g. each month, quarter, etc.) and it generates a new budget that is adjusted to the input. The steps that are needed to construct a flexible budget are (AccountingTools, 2022):

- Identify all fixed costs and segregate them in the budget model.
- Determine the extent to which all variable costs change as activity measures change.
- Create the budget model, where fixed costs are "hard coded" into the model, and

variable costs are stated as a percentage of the relevant activity measures or as a cost per unit of activity measure.

- Enter actual activity measures into the model after an accounting period has been completed. This updates the variable costs in the flexible budget.
- Enter the resulting flexible budget for the completed period into the accounting system for comparison to actual expenses.

A flexible budget can be created in multiple difficulty levels. Several variations on the concept are noted below. In short, a flexible budget gives a company a tool for comparing actual to budgeted performance at many levels of activity. The three general types of a flexible budget are (AccountingTools, 2022):

- Basic flexible budget - this form of flexible budget alters the expenses that vary directly with the revenues. There is usually a percentage built into the model that is multiplied by the actual revenues to see what costs should belong to this revenue level.
- Intermediate flexible budget - Some expenditures vary with other activity measures than revenue. For example, phone expenses vary per headcount and are not fixed costs, this should be taken into account when changing the costs compared to the revenue.
- Advanced flexible budget - Expenditures may only vary within certain ranges of revenue or other activities; outside of those ranges, a different proportion of expenditures may apply. A sophisticated flexible budget will change the proportions for these expenditures if the measurements they are based on exceed their target ranges.

The flexible budget is especially useful in businesses where costs are closely aligned with the level of business activity, consultancy firms are a great example of such businesses. It also works as a performance measurements as the budget restructures itself based on activity levels. The budget should closely align to the expectations at any number of activity levels (AccountingTools, 2022).

Example case

To make the description of a flexible budget more clear an example of a case will be provided in this paragraph.

A consultancy firm want to increase their employee base to increase their earnings. More

consultants, means more possible billable hours, means more revenue. In order for them to do this they will need to hire new consultants. Image 2.1 provides a visual representation of the steps this process takes as verbally described below:

1. There needs to be a decision point where the company decided to hire more consultants. This can be because their demand is increasing or simply because they expect their market to increase and want to get ahead of this growth.
2. Once the decision has been made, actual people have to be found and hired.
 - If this succeeds the company needs to make sure the new (and existing) consultants need to be billable for it to have an actual positive effect on the revenue.
 - If they fail they can either restart the process or realise it is not possible (right now) to hire new consultants and stop the process
3. Assuming the company was successfully at placing the consultants at an assignment, they can decide to hire even more consultants. If the billability is not what they expected it to be it would be expected to ensure a hiring freeze since it would not make sense to hire more consultants if you cannot place the consultants currently working for you

Every end point is technically also a loop as visually represented by the dotted lines. A hiring freeze might be instated when the billability percentage is low, but it is also possible that the company might re-evaluate their needs and decides to hire consultants with different expertise's. Every decision made in this process affects the budget and will thus create the need for a change.

If I, as a manager, decided I wanted to hire 5 new consultants, each expected to have a high billability and thus a high revenue stream and I do not manage to hire them my revenue will be lower then expected. If I do hire these consultants, but there billability is lower then expected, I will need to adjust since my costs will have gone up, but my revenue has stayed the same.

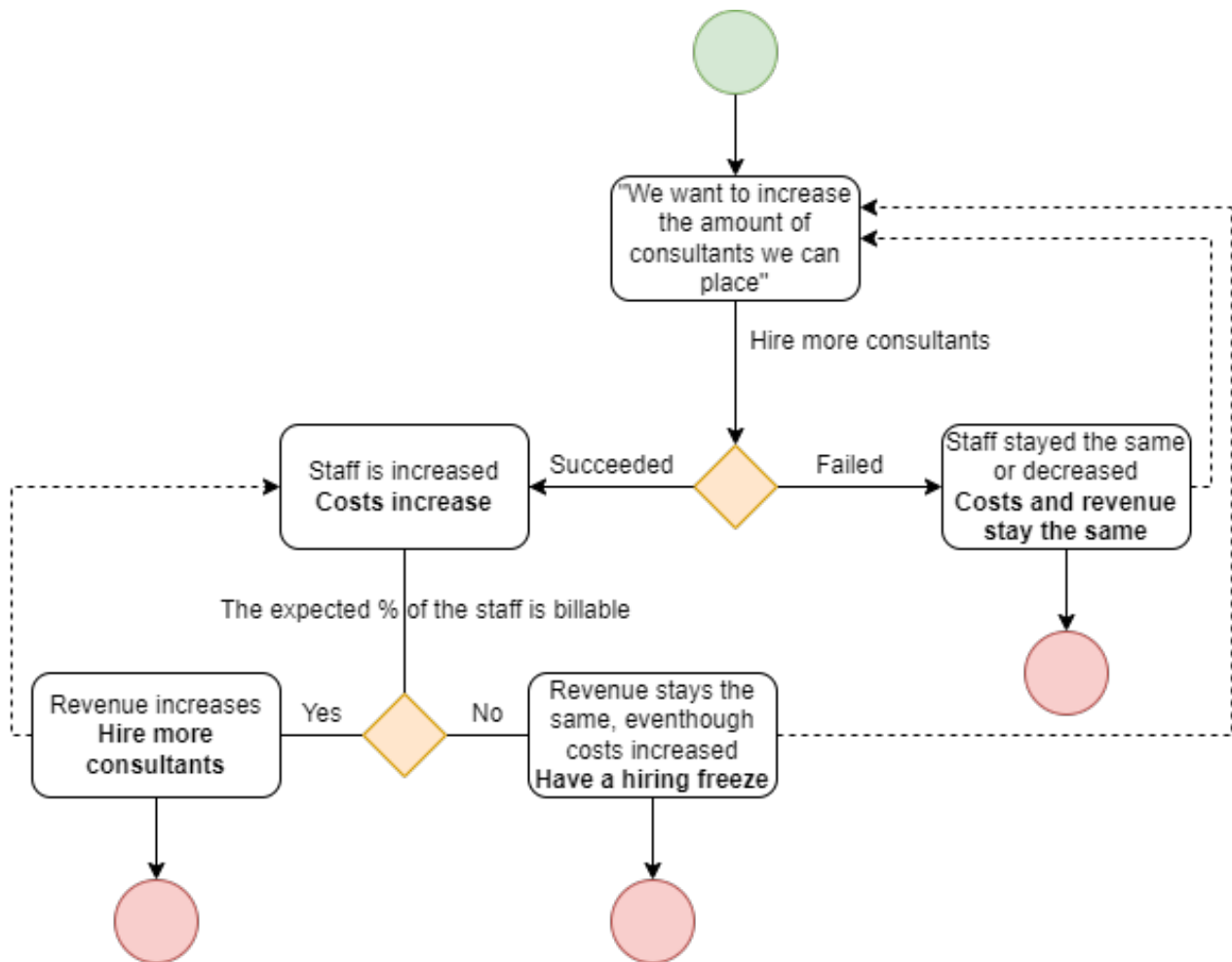


Figure 2.1: Causality of the success/failure hiring new consultants

2.2 Change and adoption

This chapter will discuss the most common change and adoption models and compare them. Most change and adoption methods offer different paths to the same solution or complement each other. The choice of a specific change and adoption model often lies with the manager in charge and is influenced by the circumstances, the goal and the history of the organisation that is working with the adoption model (Laudius, 2021).

Prosci (2021) defines change management as:

"the application of a structured process and set of tools for leading the people side of change to achieve a desired outcome."

A change is the project, initiative or solution being introduced in the organization to improve the way work gets done, to solve a problem, or to take advantage of an opportunity. Almost every project has an influence on the employees day-to-day work (Prosci, 2021). Change

creates resistance, and its success is much greater when we manage to prevent or reduce this resistance as much as possible (Laudius, 2021).



Figure 2.2: 10 aspects of change that might impact a person or group (Prosci, 2021)

Change management is the people side of change. It is the application of a structured process and set of tools for leading people into change to achieve the desired outcome. Project management and change management both support moving the organisation from the current state, through a transition state, to a desired future. Project management puts its focus on the task required to successfully design, develop and deliver the project. Whereas change management focuses on the people impacted by the change, enabling them to engage, adopt and use the change (Prosci, 2021).

The most common Change and Adoption methods according to (Lucid-Content-Team, 2022), (Hailo, 2020), (Mulholland, 2021), (Writer, 2021), are: Lewin's change management model, Kotter's 8-step change model, Kubler-Ross change curve, McKinsey 7s model, PDCA, Bridges Transition Model and the ADKAR model. Next to those common Change and Adoption models the MotionChange model will be explained. This to show the perceived usefulness of different adoption methods, as the MotionChange model is built upon existing methods and their most useful aspects according to Witjes (2021). The MotionChange model is based primarily on the following Change and Adoption methods: Rogers's innovation diffusion theory, the concerns-based adoption model, the technology acceptance model, the united theory of acceptance and use of technology and ADKAR.

2.2.1 Lewin's change management model

Lewin's change management model is still relevant even though it was developed in the 1940s. Its simple, yet effective structure, shows organisational change management can be broken down into three smaller, more manageable, stages as shown in figure 2.3. Being a physicist by trade, Lewin used the example of turning a cube of ice into a cone of ice and applied this to organisational change (Lucid-Content-Team, 2022).

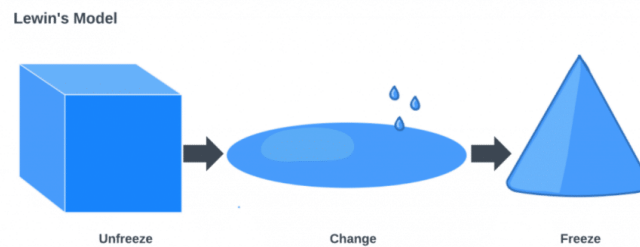


Figure 2.3: Lewin's Model of Change (Admin, 2021)

The model shows the movement of an organisation from the known (current) state to the unknown (desired future) state. This is because the future of this change is uncertain and may concern the people's worth, coping abilities, and competency, so the people of the organisation do not support change unless they are convinced against the status quo. It appoints an important person in the organisation to lead the others in their change.

Employees are being involved and instructed by the leaders regarding possible issues and that might occur during the change process. Changing does not depend on size and age but occurs thoroughly in all businesses (Hussain et al., 2018).

Assuming accurate feedback and ongoing communication occurred during the previous change step, the refreeze step locks the newly formed process into place. Referring back to the cube of ice a team should move away from their previous mold before they can fit a new one. They should adapt to the new process before implementing this completely (Lucid-Content-Team, 2022).

2.2.2 Kotter's 8-step change model

This model was developed by John Kotter after a survey of over 100 companies in constant change. It focuses on the people aspect of change instead of the organisational change. The eight steps are:



Figure 2.4: The 8-steps of Kotter's change model (Group, 2022)

This model aims at turning possibly resistant individuals into receptive participants by building trust, creating transparency, and teamwork. By identifying a clear end goal, using everybody's involvement, and executing the impending change together it ensures individuals feel involved in the process (Lucid-Content-Team, 2022).

The first three steps, as shown in figure 2.4, are aimed at creating the climate for change.

The first step is creating the sense of urgency. This is the attention span a person has regarding a change. At the start of a change process, it invariably appears that a lot of interest, awareness of urgency and willingness to cooperate is released. It will subsidise after a short while. It often happens that a change process largely disappears from the spotlight.

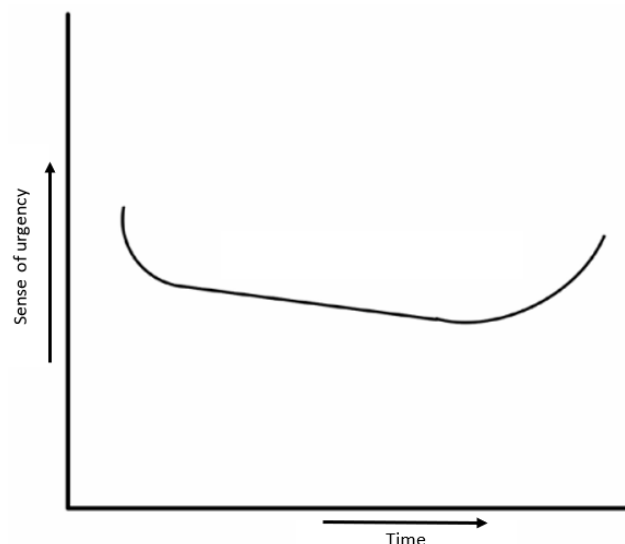


Figure 2.5: Sense of urgency over time (Laudius, 2021)

When the moment approaches that the results have to be delivered, this will change again.

There is suddenly a lot more attention.

The second step is forming a powerful coalition. This step looks at who is important, and then looks into what is important. Leaders must be supported by a group of enthusiastic people for the change to be set in motion (Group, 2022).

The third step involves creating a vision for change. This vision needs to be concrete, realistic and simple. What is the change about and why does the change need to happen. Look for common values and underlying issues that form the basics of the desired behaviour (Group, 2022)

The fourth, fifth and sixth step, communicating the vision, empowering action, and creating quick wins. aim at engaging and enabling the organisation. These steps focus on limiting uncertainty, fear and mistrust. There needs to be unconditional and long-term support from higher management. The effect of the change is the quality of the solution * support within the organisation ($E = K * A$) (Group, 2022).

The final two steps focus on implementing and sustaining for change. Step seven builds on the change and makes sure the organisation does not become overly confident. The emphasis lies on continuing the changes, tuning and fine tuning. The sense of urgency needs to remain high in order for this step to succeed. The eight step ensures that the newly created situation sticks. It focuses on the discipline and perseverance to actually do and finish things differently (Group, 2022).

2.2.3 Kubler-Ross change curve

The Kubler-Ross change curve is better known as the seven stages of grief, but it can also be thought of as a change and adoption model. It breaks down the stages people go through when changing in general. Organisations can better prepare for the coming change when they also anticipate what possible reactions their employees might give (Wright, 2009). The seven stages are:

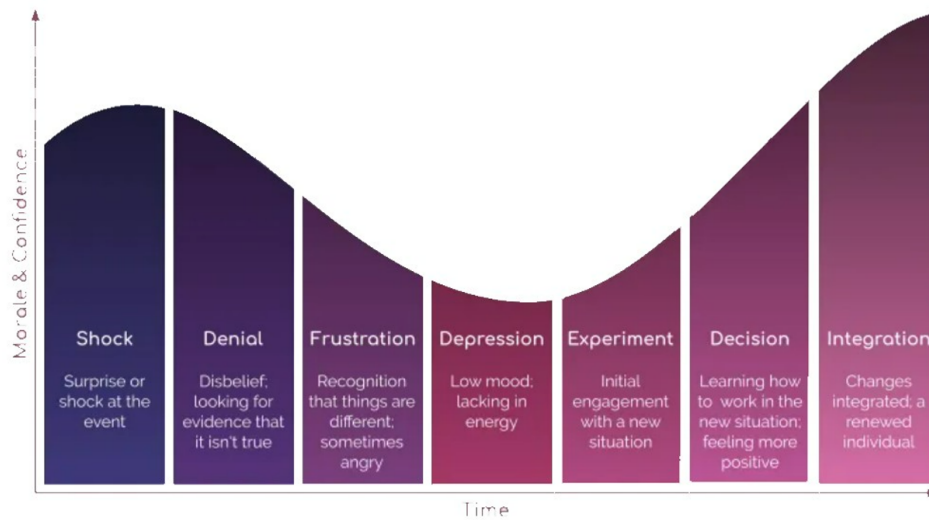


Figure 2.6: The seven stages of the Kubler-Ross change curve (Foundation, 2022)

Change always involves loss of some sort, so employees will need time and space to experience their emotions about this change. Understanding how people process their emotions will give you a better understanding in how to deal with these emotions (Mulholland, 2021).

The first stage, shock, looks into the willingness of employees. Employees are not willing, or not able, to accept the change. People tend to show resistance to change as they do not see the relative advantage. Is the innovation seen as better than the item it replaces?

In the second stage, denial, employees are realising the change is really going to be implemented and they will be looking for evidence that this is not true. In the third stage, frustration, employees start to recognise that things are different and they will sometimes respond angrily.

During the depression mood energy is low and motivation to implement change is lacking. This stage is similar to the sense of urgency as shown in figure 2.5. This stage is the lowest in the curve of change. After this stage employees will most likely start to implement change by engaging in the new situation.

The final two stages, decision and integration, focus on the willingness of the employees to learn how to implement the new situation and in integrating the new process in their daily routine.

It is important to keep the following manners in which innovation is delivered or implemented and the adaption of the innovation to the individuals involved in the process in mind. The key assumptions are (Loucks-Horsley and Bybee, 1996):

- Change is a process that takes time to institute
- Individual focus needs to be facilitated in order to change individuals minds
- The change process is a very personal process and is not to be rushed or pushed. Doing otherwise will strongly affect the outcome
- Individuals progress through different stages at a different pace, keep their emotions and capabilities in mind when deciding on a process

2.2.4 McKinsey 7s model

The McKinsey 7s model evaluates how different parts of the organisation work together. According to the model as shown in figure 2.7 there are 7 fundamental elements present in every organisation.

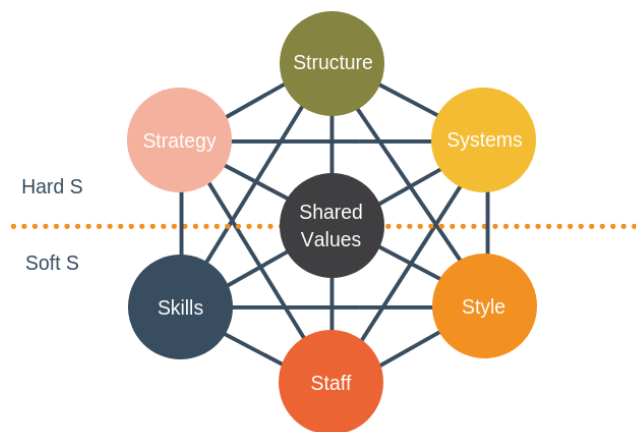


Figure 2.7: McKinsey's 7s Model (Foundation, 2022)

The hard elements, strategy, structure and system, are easy to identify and control. These elements are strategic statements, organisational charts and reporting lines, and formal processes and IT systems (Intology, 2022).

Strategy is the plan that is created to maintain and build a competitive advantages over possible competition. Structure focuses on the way in which the organisation is set up and who reports to whom, this is similar to the second step of Kotter's 8-step change model (form a powerfull coalition) (Group, 2022). Systems talk about the day-to-day activities and procedures that staff members perform to get the job done (Intology, 2022).

The soft elements, shared values, staff, style and skills, are harder to describe. They are less tangible and influence more by culture. Shared values are the company's core values which are reflected in the company culture and overall work ethic. Style refers to the chosen

leadership style and influences the structure. Staff looks at the employees and their general capabilities. Skills look at the actual skills of the employees and their competencies (Intology, 2022).

The seven elements should be adjusted to each other to efficiently enforce change. The model can be used to understand how the organisational elements influence each other and to ensure the broader impact of change is regarded in every aspect of the organisation (Kaplan, 2005).

2.2.5 Plan-Do-Check-Act

This model is a cyclical and iterative process for changes to improve the quality of processes and systems. The four steps of the model, as shown in figure 2.8, enable teams to avoid reoccurring mistakes and improve processes (Kanbanize, 2022).

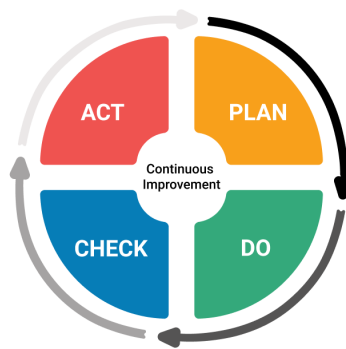


Figure 2.8: Plan-Do-Check-Act model (Kanbanize, 2022)

In the first phase, planning, there should be an analysis of the current situation a root cause analysis and a definition of performance measurements. This phase is used to establish a plan for improvement and change (Lodgaard and Aasland, 2011).

The second phase, doing, involves implementing the improvement plan and making any changes happen. This phase can be compared to the unfreeze phase as described in paragraph . People need to get used to the new process and refreeze their new way of work (Lodgaard and Aasland, 2011).

The third phase, checking, aims at evaluation of the results. Is the change implemented efficiently and correctly? The final phase, acting, is about learning and standardising the new process (Lodgaard and Aasland, 2011). In this phase the employees actually refreeze in

the new state as described in paragraph 2.2.5.

2.2.6 Bridges Transition Model

This model is a people-centred approach to change management similar to the Kubler-Ross change curve (described in paragraph 2.2.3). The key to change management is not the results of the change, but the way employees let go of the old and accept the new.

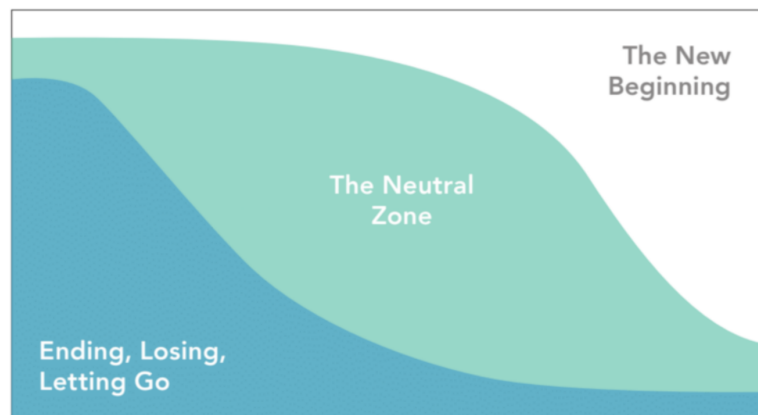


Figure 2.9: William Bridges' Transition Model (McCann, 2019)

As shown in figure 2.9 transition starts with an ending. The first phase of a transition begins when employees identify what they are losing and when they learn how to manage these losses (McCann, 2019).

The neutral zone is realised after letting go. This is the period when employees have let go of old processes, but new ones are not completely in place. This is the zone where realignments and repatternings take place. It is in continuous change and does not feel comfortable yet.

The final zone is about new beginnings. This involves new attitudes, values and understandings. Well-managed transition allows for employees to understand their new purpose, and how to contribute and participate in the new process effectively (McCann, 2019).

2.2.7 ADKAR

The ADKAR Model, created by Prosci founder Jeff Hiatt 2006, is a goal-oriented change management model that guides individuals and organisational changes. It stands for Awareness, Desire, Knowledge, Ability and Reinforcement. Also shown in image 2.10.

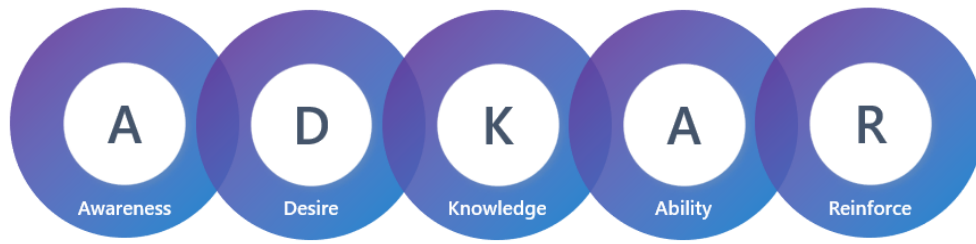


Figure 2.10: ADKAR (Partners, 2019)

The ADKAR model is based on the belief that change happens at an individual level. For any organisational change to happen every individual has to change as well. The Prosci ADKAR model provides structure and tangible guidance for leaders who want to motivate change in others. It allows to focus their activities on what will collectively drive individual change and produce organisational results.

2.2.8 Rogers's innovation diffusion theory

Diffusion of Innovation (DOI) Theory, developed by E.M. Rogers in 1962, originated in communication to explain how an idea or product, over time, gains momentum and diffuses through a population or social system. This theory is based on people, as part of a social system, adopt a new idea, behaviour, or product as normal. Adoption, in this case, means the change in behaviour: doing something in a way different than you were doing it before. The key to adoption is that a person has to perceive the idea, behaviour, or product as new or innovative (LaMorte, 2019).

This process does not happen simultaneously in a social system. Research has shown that people who can be defined as 'early adopters' have different characteristics than people who adopt an innovation later. In promotion it is important to take those characteristics into account and understand what will help or hinder the adaptation to the idea, behaviour or product. There are five established adopter categories (LaMorte, 2019), this is also visually represented in 2.11:

1. Innovators - people who want to be the very first to try a new innovation. They are interested in new ideas and are eager to adapt their lifestyle. They are willing to take risks and are often the ones that come up with new ideas.
2. Early adopters - people that often portray leadership. They are already aware of the need for change and are happy to adopt their thinking and behaviour. Strategies to

appeal to this group include manuals and information sheets on implementation.

3. Early majority - this group wants to see evidence of an idea, behaviour style, or product working. Strategies that appeal to this population include information on how other people have tried it and made a success out of using it.
4. Late majority - this group is very sceptical of change, they only want to adopt after it has been successfully adopted by a vast majority in their social group. Strategies to appeal to this group are similar to the early majority group.
5. Laggards - a group of very conservative people, stuck in their traditions. They do not want to change and cannot find a need to change. They might be persuaded by statistics, fear appeals, and pressure from other people in their social group.

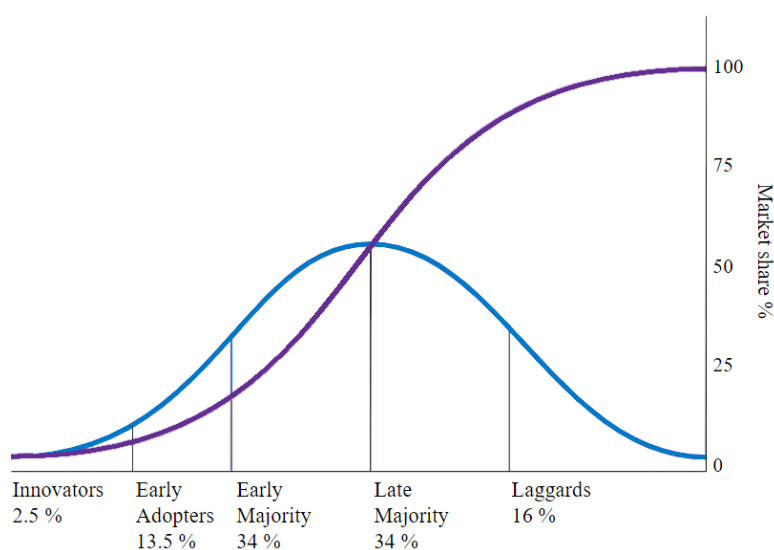


Figure 2.11: Diffusion of innovations (Rogers, 1995), (Moore, 1991)

The left side of figure 2.11 determines the force with which this "wave of change" reaches the organisation. The larger and more positive left-wing employees take positions, the sooner the right-wing group decides and moves forward (or decide to leave the organisation). The percentages in figure 2.11 show the normal distribution. This gives an indication of the static change within the organisation. When a manager succeeds in activating more employees the group of innovators will end up having a higher percentage, but when the manager does not succeed the right-side of this model will increase in size (Laudius, 2021).

The faze of adoption can be influence by five main factors, and each of these factors is at play to a different extent in the five adopter categories (LaMorte, 2019):

1. Relative Advantage - Is the innovation seen as better than the item it replaces?

2. Compatibility - How consistent is the innovation with the values, experiences, and needs of the potential adopters?
3. Complexity - Is the innovation difficult to use?
4. Triability - Can the innovation be tested before a commitment is made?
5. Observability - Does the innovation provide tangible results?

2.2.9 Concerns-Based Adoption Model

The concerns-based adoption model (CBAM) is based on the seven stages that point out the importance of attending to where people are in their adoption process and how to address their questions. The seven stages of concern are (Loucks-Horsley and Bybee, 1996):

1. Awareness - I have no interest in this
2. Informational - I want more information
3. Personal - How will this affect me?
4. Management - I seem to be spending a lot of time on getting materials ready, why?
5. Consequence - What impact do I make?
6. Collaboration - How can I relate my work to what others are doing?
7. Refocusing - I have some ideas that might even work better.

The CBAM addresses each of these stages and looks into the individual's concerns about the innovation, the particular manner in which innovation is delivered or implemented and the adaption of the innovation to the individuals involved in the process. The key assumptions are (Loucks-Horsley and Bybee, 1996):

- Change is a process that takes time to institute
- Individual focus needs to be facilitated in order to change individuals minds
- The change process is a very personal process and is not to be rushed or pushed. Doing otherwise will strongly affect the outcome
- Individuals progress through different stages at a different pace, keep their emotions and capabilities in mind when deciding on a process
- The availability of a client-centred prescriptive model can enhance the individuals facilitation during staff development
- People responsible for the change process must work in an adaptive and systematic way where progress is monitored constantly

2.2.10 Technology Acceptance Model

The technology acceptance model (TAM) models how users come to accept and use a technology. The model suggest that, when users are presented with a new technology, a number of factors influence their decision about how and when they will use it:

- Perceived usefulness - defined by Davis (1989) as "the degree to which a person believes that using a particular system would enhance his or her job performance"
- Perceived ease-of-use - defined by Davis (1989) as "the degree to which a person believes that using a particular system would be free from effort"

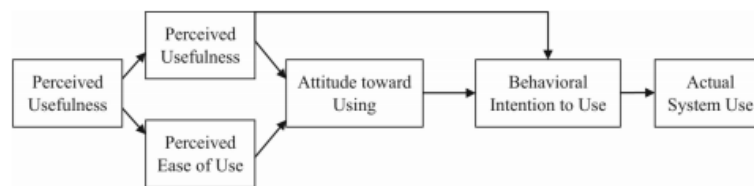


Figure 2.12: Technology acceptance model (TAM) (Tonissen, 2016)

2.2.11 United Theory of Acceptance and Use of Technology

The unified theory of acceptance and use of technology (UTAUT) is an acceptance theory focused on explaining user intentions to use an information system and the subsequent usage behaviour and is an upgrade from the TAM. The theory is build on four key constructs: performance expectancy, effort expectancy, social influence and facilitating conditions (Tonissen, 2016).

These key constructs are influenced by multiple factors such as gender, age, experience, and voluntariness of use. The influence of these factors can be seen in the picture below.

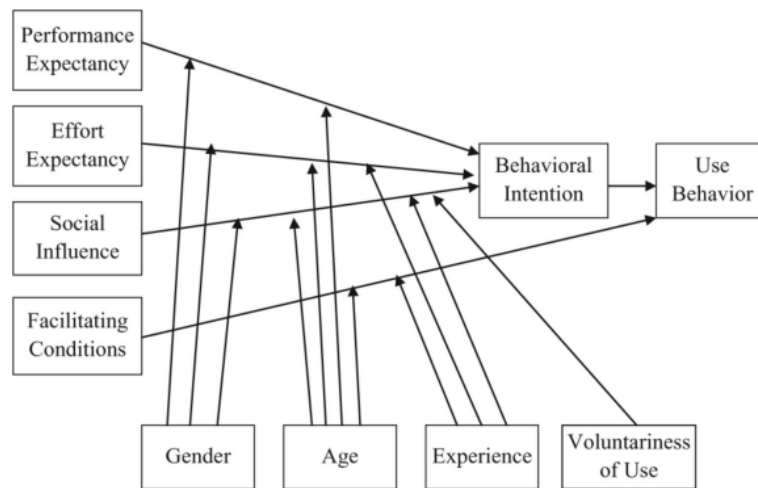


Figure 2.13: Unified Theory of Acceptance and Use of Technology (UTAUT) (Tonissen, 2016)

2.3 MotionChange model

Motion10 has been working on adapting multiple change and adoption methods into their own model. By using, what they believe are, the best aspects of different methods they intend to create an even more functional change and adoption method. According to Witjes (2021) the MotionChange model is based on involving the user throughout the entire process to gain user participation and willingness when it comes to using a new system . This participation is key for the success of any new system or working method, as this increases the willingness to adapt to this new way of work.

As shown in figure 2.11 just 16 percent of all employees adapt with the first flow, the other 84 percent needs external motivation. The success of the project relies deeply on the amount of energy is being put into the usage and adoption process, next to a good technical implementation. This compares to the steps in Kotter's 8-step change model, subchapter and to Rogers Diffusion of innovations theory (Rogers, 1995).

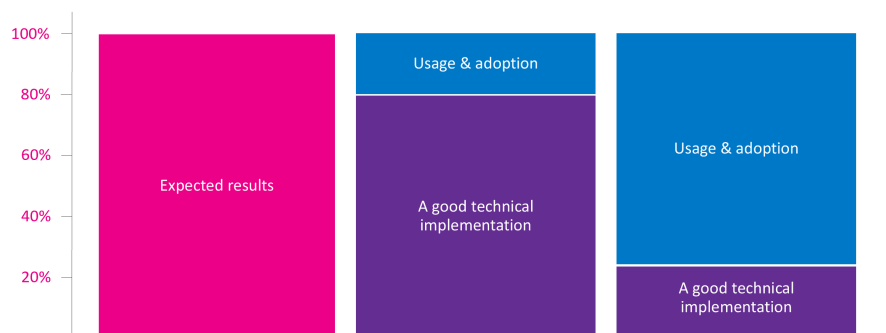


Figure 2.14: Where lies the success of a project (de Vries, 2018)

People are not central in decision-making and are not being involved by their employers. Instead, a message is placed on the intranet and people are invited by email for a classroom training after going live. This needs to change to a strategy where employees are involved from the beginning. People need to feel important in order for them to feel like they are worth something, giving back to the world, better than other people, doing something with their lives and it boost self esteem (S., 2019) This means a parallel and integrated workflow need to be in place to put the employee central in the change process. Figure 2.15 shows the effort employees tend to show over time when a certain amount of change and adoption is in place.

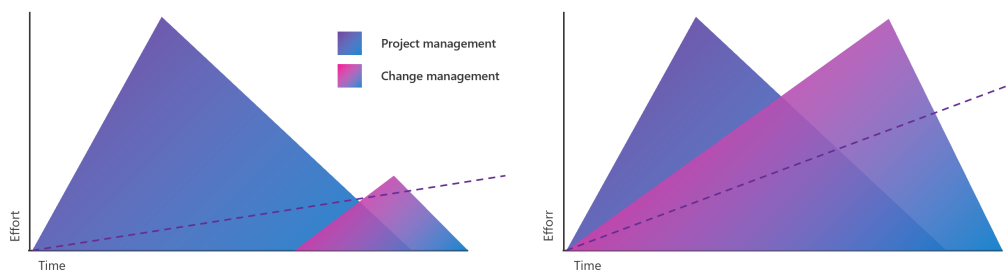


Figure 2.15: Adoption in practice (de Vries, 2018)

The modern workplace is a way of implementing change and adoption in the normal way of work. It asks for a value and people driven approach and relies on six pillars and can be compares to the Kubler-Ross change curve, paragraph 2.2.3, or to the Technology Acceptance model, paragraph 2.2.10.

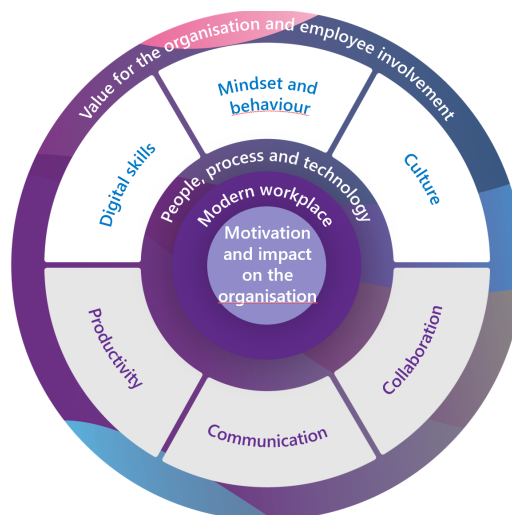


Figure 2.16: The modern workplace (de Vries, 2018)

The employee dependant pillars, consisting of mindset and behaviour, digital skills and

culture, all focus on the willingness and ability of employees. They need to want to adopt, see the use of the adoption on a personal level and possess the skills needed to implement the change. Corporate culture is of big influence on this level. As described in the Diffusion of Innovations theory, paragraph 2.2.8, this process does not happen simultaneously in a social system (or culture). Another big factor is described in the Concerns Based Adoption Model, paragraph 2.2.9, the key assumptions, as described earlier, are that change is a process that takes time, individual needs need to be the focus and it can't be rushed or pushed.

Corporate culture is of big influence on this level. As described in McKinsey's 7s model, paragraph , all parts of the organisation need to work coherently in order for change to be implemented efficiently this process does not happen simultaneously in a social system (or culture). Another big factor is described in the Kubler-Ross change curve, paragraph 2.2.3, the key assumptions, as described earlier, are that change is a process that takes time, individual needs need to be the focus and it can't be rushed or pushed.

The pillars of the modern workplace, consisting of productivity, communication and collaboration, all focus on the work aspect of change. How can we change as efficient and effective as possible. The productivity of employees is key and can be improved by the quality of communication and collaboration (de Vries, 2018).

These pillars work closely with the seven stages of concern that are described in the Concerns Based Adoption Model, paragraph 2.2.9. By applying a people driven approach the individual's concern is mostly taken away. This people driven approach is also described in the ADKAR model (Hiatt, 2006) as discussed in paragraph 2.2.7.



Figure 2.17: Change, where is the impact for the employee? (Creasey and Olson, 2021)

Chapter 3

Methodology

This chapter will go deeper into the research methods used and the considerations that have been made in order to correctly answer the research questions. The goal of this chapter is to create a clear understanding of the research structure and the way this has been executed.

3.1 Research design

To accurately answer the research question the research will be conducted by using a qualitative interpretive exploratory research design. As discussed by Ponelis (2015) this method has been accepted as a way to develop conceptual and theoretical models that might be novel, but are still grounded in literature. The exploratory research will help develop a structured user interview, combined with a structured survey, that aims to arrive at a clear set of requirements for a new budgeting system and to test the Change and Adoption process that talks about involving users in the early steps of development.

The main research question has been split into multiple sub-questions. These sub-questions are more focused on specific areas of the main research question and help to coherently build to a conclusion and creates validity for the final answer to the main question. See table 3.1 for a summary of the sub-questions, their respective methodology and the instruments used for answering the sub-questions.

| Sub-question | Methodology | Instruments |
|---|-------------------|-------------------------|
| What is change and adoption? | Thematic analysis | Literature study |
| How can Change and Adoption be applied? | Thematic analysis | Literature study/survey |
| What is the effect of a dynamic budget? | Thematic analysis | Literature study/survey |

Table 3.1: Methodology by sub-question

To increase the chances of the new system being used correctly a change and adoption process will be added to this process. The MotionChange model, as described in chapter 2.3, will be compared with existing models described in literature, as shown in the previous chapter. The models will be reviewed by a literature study.

The chosen methodology, thematic analysis, for answering the sub-questions is a method for identifying and analysing patterns of meaning in a data-set. It illustrates which themes are important in the description of the phenomenon that has been studied by Hayes (1997) and was later validated by Braun and Clarke (2006).

3.2 Participants

This research has an exploratory nature and builds on the requirements set by users of a budget. Therefore, it is necessary to get into contact with those individuals with experience in using a budget, making use of Change and Adoption, or those who are interested in improving their way of budgeting. This subsection discusses the sampling strategies and the access to the sample group.

3.2.1 Sampling

For this research a sample group of minimum 15 users, from at least 5 companies, will be surveyed. **WHY?** This group will be referred to as the first sample group. The participants will all have to comply to the following selection criteria:

- They must use the budget OR be interested in using the budget,
- They must employees within an organisation (not self-employed)

An attempt will be made to evenly spread the amount of participants over the companies surveyed. In an ideal situation all surveyed companies provide 2 or 3 users. The sampling is likely to have a selection bias, a distortion of evidence arising from the way that the data is collected (Thomas, 2017), as this sample comes from the personal circle of the researcher even though it is attempted to take a random sample. Within this study the selection biases to most likely occur are: Sampling Bias and Volunteer or Self-selection Bias.

- **Sampling bias** is a type of selection bias caused by non-random sampling of a population (Blog, 2021). This sample comes from the personal circle of the researcher and it is therefor a real possibility that the sample will be in the form of a snowball sample

or a purposive sample as sampling will rely on personal judgement when choosing members of the population to participate in this survey (Thomas, 2017).

- **Volunteer or self-selection bias** is based on the differences between those who choose to participate and those who do not. This happens when the participants that willingly participate in the study are not representative of the research population (Blog, 2021). A person that is willing to participate in a survey might also be more inclined to adapt to change.

3.2.2 Access

To gain access to enough respondents contact will be made by contacting people in a personal social circle. These people will most likely spread the survey within their own circle, creating a diverse group of respondents.

The respondents will all be provided with the option to ask for the results of the research when published. They will also be kept up to speed during the research if they prefer. The reasoning behind this is the engagement created by sharing information about the research. This engagement will make it more likely for people to respond and feel comfortable to participate, as discussed in multiple change and adoption theories listed in chapter 2.

3.3 Ethics

The ethics of this research are based on decisions and dilemmas that are much less explicit than black/white or wrong/right. Research ethics need to be part of a research in order for the research to ensure safety and informed commitment of the subjects. The most important principals related to ethical considerations according to both Bryman and Bell (2011) and Roshaidai and Arifin (2018) are stated below:

1. **Research participants should not be subjected to harm, both physically and non-physically.**

This study will respectfully treat all stakeholders and participants to ensure the working environment is safe and that the interview or survey questions do not invoke negative emotions. To ensure extra safety regarding current measures around COVID-19, all communication with stakeholders and participants will take place via a form of digital communication.

2. Respect for the dignity of research participants should be prioritised.

The opinions, knowledge and other personal findings of the participants will be treated with respect and dignity.

3. Full consent should be obtained from the participants prior to the study, an adequate level of confidentiality of the research data should be ensured and the anonymity of individuals and organisations participating in the research has to be ensured.

All participants will receive a disclaimer before being subjected to an interview or survey questionnaire. This disclaimer will inform the participants of the goals of the study, as well as the way the study will handle their responses and other collected information. They are always allowed to decline to answer, revoke their answers or see the results of the research.

4. Participants should be fully informed and understanding of the implications of the study.

Contact information will be provided in the disclaimer. This ensures stakeholders and participants will always be capable of asking questions and/or revoking their answers when deemed needed.

5. Participants should be legally and ethically competent to consent.

All participants are of working age and are primarily considered to be competent to consent. If any questions about a participants ability consent do arise, they will be disqualified from the study.

6. The protection of the privacy of research participants has to be ensured.

All personal identifiers such as names, addresses, and contact information will be kept strictly private, unless agreed upon otherwise. The rules of the General Data Protection Regulation (GDPR) will be followed in order to ensure the safety of stakeholders and participants.

7. Any deception or exaggeration about the aims and objectives of the research must be avoided.

The aims and objectives of the research will be made clear before the participant is subjected to any interviews or surveys. The aims and objectives of the research have been discussed and corrected in accordance with the thesis supervisor from Leiden University.

8. Affiliations in any forms, sources of funding, as well as any possible conflicts of interests have to be declared.

All affiliations or conflicts of interest will be declared to the participants via the disclaimer. Leiden University has no known conflict of interest with any of the participants or their organisations. Motion10 is facilitating the research. Motion10 will receive the same information that will be shared when the research is made public. This is also communicated with the participants.

9. Any type of communication in relation to the research should be done with honesty and transparency.

The researcher will communicate the aims and objectives of the research clearly and frequently with the participants and stakeholders if requested.

10. Any type of misleading information, as well as the representation of primary data findings in a biased way must be avoided.

The thematic analysis methodology of coding and representing primary data-based findings will be used for this research. This methodology is a peer-reviewed method of avoiding biases by identifying and analysing patterns of meaning in data-sets. It illustrates which themes are important in the description of the phenomenon under study (Hayes, 1997) (Braun and Clarke, 2006).

3.4 Validity and Reliability

As the research only has value when the results are grounded and correct, it is an essential part of this research to ensure that the collected data is valid and reliable. This study will use the following definition of validity and reliability:

3.4.1 Validity

"Validity refers to integrity, the application of the methods, and the precision in which the findings accurately reflect the data." (Noble and Smith, 2015)

The main considerations to be taken into account in assessing the validity of the findings of this study are:

- The main claims and evidence (from (Thomas, 2017) by M. Hammersley (2005)):
 - Are the main claims'plausible enough to be accepted at face value?
 - If not, is evidence provided?
 - If so, is the evidence sufficient, in terms both of strongly implying the validity of the main

- knowledge claim and in being sufficiently plausible or credible to be accepted?
- If not, is a further layer of evidence provided?
- If so, is this evidence sufficient? And so on.
- The relationship between the findings about the cases studied and the conclusions drawn:
 - Where these are empirical generalisations about some finite population, on the basis of whatever evidence is provided, are they sufficiently plausible or credible to be accepted?
 - Where they are theoretical statements of a conditional causal kind, on the basis of the evidence provided, are they sufficiently plausible or credible to be accepted?

3.4.2 Reliability

"The consistency of the analytical procedures, including accounting for personal and research method biases that may have influenced the findings." (Noble and Smith, 2015)

Reliability refers to the extent to which a research instrument will give the same result when performed by a different researcher on a different occasion. In interpretative research you are interpreting on the basis of you being you, interviewing someone else being them, the influences of these personality traits will always affect interpretation of the results (Thomas, 2017).

As mentioned in subsection 3.2.1, sampling, the sampling is likely to have a selection bias as this sample comes from the personal circle of the researcher even though it is attempted to take a random sample. This might distort data and lead to unreliable research outcomes as it can affect the external validity of the analysis. The results from the survey may provide a distorted view instead of a generalised view of the population. It may also affect the internal validity as it may lead to the inaccurate estimation of relationships between variables (Blog, 2021).

3.4.3 Ensuring credibility of the findings

As all chapters above ensure, validity and reliability have been taken into consideration, by accounting for the possible biases and looking at the important aspects of validity, when

looking at the results. It will be further discussed in chapter 5 that the results will always undergo a certain bias. This as the survey have been held in a personal business environment and is always subject to filtering

3.5 Data gathering and instrumentation

Multiple instrumentation have been used to gather the data required for this research. This instrumentation include questionnaires.

The questionnaires have been send out in order to gain the most insight into the Change and Adoption process in multiple companies. Since all relevant answers can be answered by closed questioning a survey suffices and might even give more insights as it can reach a bigger crowd.

3.6 Analysis

Braun and Clarke have presented the six phases of conducting thematic analysis, which can be seen in figure 3.2.

| Phase | Description of the process |
|--|--|
| 1. Familiarizing yourself with your data | Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas. |
| 2. Generating initial codes | Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code. |
| 3. Searching for themes | Collating codes into potential themes, gathering all data relevant to each potential theme. |
| 4. Reviewing themes | Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of analysis. |
| 5. Defining and naming themes | Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generation clear definitions and names for each theme. |

Table 3.2 continued from previous page

| Phase | Description of the process |
|-------------------------|---|
| 6. Producing the report | The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis |

Table 3.2: Phases of Thematic Analysis

These six phases of conducting thematic analysis have been incorporated in this research in order to uphold the reliability and validity of the conclusions, and with that the research.

3.7 Survey

The survey consists of 24 questions. The survey allows to collect a large amount of data and on a broad spectrum of things, including personal facts, attitudes, past behaviors, and opinions. It is efficient, less expensive, easy to create and stimulates diverse use (Cherry, 2020).

The goal of this survey is to measure whether the employee is willing to provide input to a flexible budget depending on their relation to the company. Are they more inclined to provide extra information if they are involved?

Table 3.3 shows the breakdown per question explaining the use of each question asked. While most questions aim to answer the research questions, others only serve as a purpose for people to feel inclined to answer.

| Survey Question | Reason |
|---|--|
| Age and Job level | According to the UTAUT the key constructs are influenced by multiple factors such as gender, age, experience and voluntariness of use (Tonissen, 2016). |
| Are you informed of changes within your company? | According to Witjes (2021) involving the user throughout the entire process to gain user participation and willingness when it comes to using a new system. |
| Do you know what is expected of you at your job? | To a large extent, people declare that a project has either succeeded or failed based on whether it met their expectations. Few projects fail in an absolute sense – they simply fail to meet individual expectations (JargonDatabase, 2021). This shows that clear expectations are needed to decrease “failed” projects. |
| Is your opinion asked when changes are planned/implemented? Are you aware of personal or business advantages when changes are implemented? | According to Witjes (2021) involving the user throughout the entire process to gain user participation and willingness when it comes to using a new system. |
| Do you feel capable of making the changes happen? | According to Gallup (2021) employee engagement can be measured with just 12 questions. If you want to make change happen, you need to be capable. |
| Motivate your answer | By involving people and asking for their opinion they feel involved and will be more inclined to put energy into the research. |

| Survey Question | Reason |
|--|--|
| Do you have the facilities you need to make changes? Think of time, knowledge, technology, etc. | According to Gallup (2021) employee engagement can be measured with just 12 questions. If you want to make change happen, you need to be capable. |
| Does the purpose or mission of a change make you feel that your work is important? Do you still feel involved after implementing a change? In the past month, have you received recognition or praise for the good work you have done? Does your supervisor give the impression that you are personally considered important? | People need to feel important in order for them to feel like they are worth something, giving back to the world, better than other people, doing something with their lives and it boost self esteem (S., 2019) |
| Is there room at your work to develop further during developments or changes? | The change process is a very personal process and is not to be rushed or pushed. Doing otherwise will strongly affect the outcome. This translates in the need for space to develop further during developments or changes. |
| Are you currently providing input for the budget? When does the process start for you? Within your department, who uses the budget? | General question to gain understanding of the current position of the survey taker |

| Survey Question | Reason |
|--|--|
| Would you be willing to provide input for your company's budget? Do you think that a flexible budget affects the financial stability of a company? As you become more involved in budgeting during the year, are you more willing to pursue these goals? | Perceived usefulness - defined by Fred Davis (Davis, 1989) as "the degree to which a person believes that using a particular system would enhance his or her job performance" |
| How would you like to provide input to your company's budget? Would you like to provide input for a flexible budget throughout the year? | Perceived ease-of-use - defined by Fred Davis (Davis, 1989) as "the degree to which a person believes that using a particular system would be free from effort" |
| Email address and Any further comments or questions | People are more inclined to invest time in something they will know the results of. It makes people feel part of the project and as if they share in the results (Duff, 2021). |

Table 3.3: Reason for asking certain survey questions

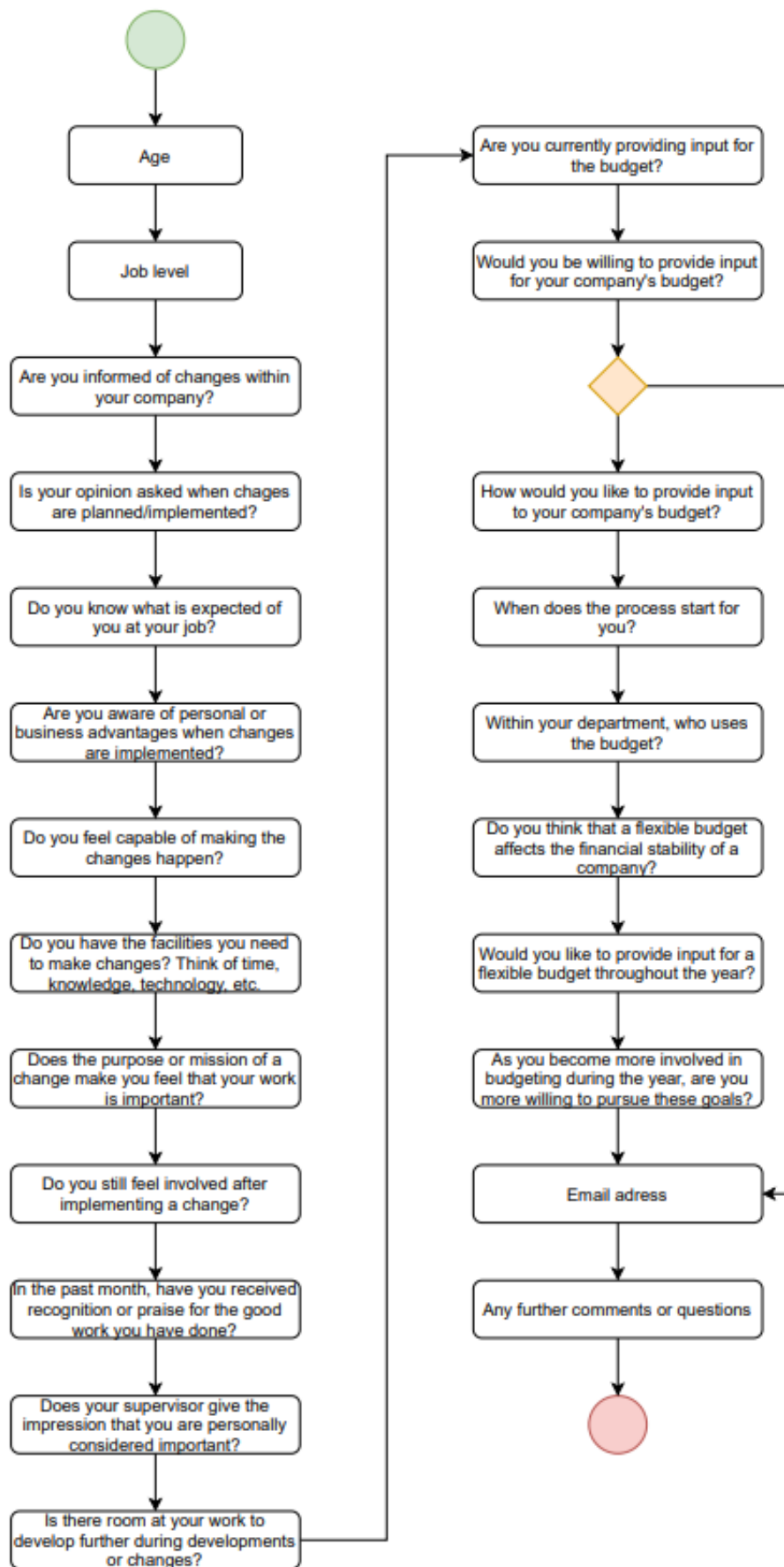
Next to the questions portrayed in table 3.3, the interviewee was presented with basic theory about change and adoption and the flexible budget.

"Veranderingen zijn pas succesvol als de doelgroep van de verandering een succesvolle gedragsverandering doorgemaakt heeft. Veel projecten met een verandercomponent falen omdat er slechts aandacht is voor de inhoudelijke kant (techniek) en voor de harde kant van het projectmanagement, het managen van de tijd, de kosten, de scope en de kwaliteit. De factor Change Management wordt hierin vaak niet expliciet meegenomen."

"Een flexibele begroting is gebaseerd op aanpasbare scenario's gedurende het jaar. Bij grote veranderingen in de economie, het interne of externe milieu of de personeelsinzet kan de begroting aangepast worden om gedurende het jaar een beter passende begroting te creëren."

As Change and Adoption models suggest that people tend to get more involved when being involved in the results this survey also gives them the option to leave their information in order for them to receive the results of the research. *"Bedankt voor uw deelname aan dit onderzoek. Wenst u op de hoogte gehouden te worden van de resultaten laat dan hieronder uw emailadres achter."*

3.8 Survey structure



Chapter 4

Results

This chapter will discuss the research findings, limitations and recommendations for future research. The chapter will proceed as follows: subsection 4.1 presents the answers to the research question and the sub-research questions, subsection 5.1 discusses the research limitations and its implications and subsection 6 will highlight the general recommendations and conclude the study.

4.1 Answers to the research question and sub-research questions

In chapter 1 the main research question and the sub-research questions were introduced with the aim of providing answers. The following section points out brief answers to the research questions that lead to draw the appropriate academic answer to the general research question "What is the influence of Change and Adoption on the implementation of a dynamic budget?". The survey results will be challenged against the theoretical data to see if any irregularities arise.

4.1.1 Research question 1

What is Change and Adoption? Change management is the people side of change. It is the application of a structured process and set of tools leading people into change to achieve the desired outcome. Project management and change management both support moving the organisation from the current state, through a transition state, to a desired future. Project management puts its focus on the task required to successfully design, develop and deliver the project. Whereas change management focuses on the people impacted by the change, enabling them to engage, adopt and use the change (Prosci, 2021).

It is the adoption of a method that provides practical advice on how to change a persons behaviour in a way that is beneficiary to the company. It looks into the communication with participants and is based on people, as part of a social system, in order for them to adapt to a new idea, tool or product. Adaption in this method means change in behaviour, where each Change and Adoption method has a different approach. However they all focus on the people side of change and their perceived usefulness of the behavioural change.

Change and Adoption is mainly focused on involving employees in the process of decision-making. This process contains asking for their opinion, informing them of change and making sure they see either personal or business advantages of the change that is being implemented. If one of these factors is missing, it is likely that an employee will not adopt the change.

Are you being informed when changes are implemented?

Looking at subsection 2.2.9, Concerns-Based Adoption Model, and subsection 2.3, Kotter's 8-step change model, information (I want more information) and personal issues (How will this affect me?) might have great impact when it comes to implementing change. The survey results (figure 4.1) show that companies are informing most of their employees impacted by the change when changes are implemented.

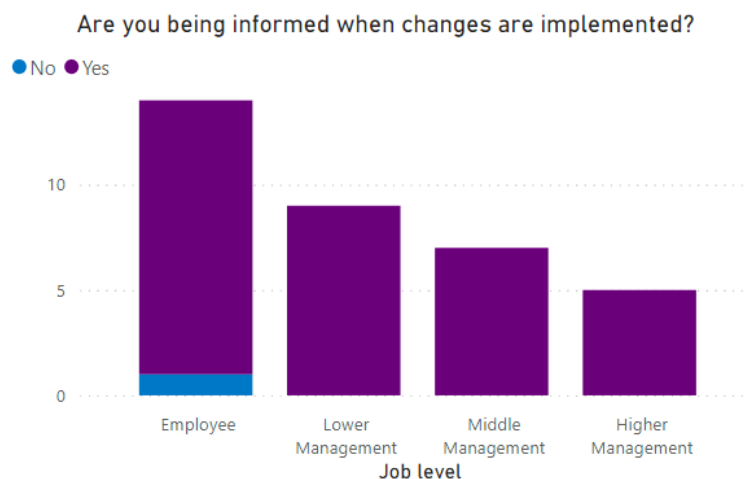


Figure 4.1: Survey results showing if someone is informed of changes based on job level

Is your opinion asked when changes are implemented?

Another part of change is asking the opinion of all employees involved in the change that impacts them directly. As you can see in figure 4.2 this is, not yet, a common habit for

companies. According to the survey results employees with a lower job level feel that their opinion is asked less often in comparison to the employees with a higher job level. Out of 35 respondents, 5 respond with "No" when asked if their opinion is asked for any change that is going to be implemented. This translates to approximately 15% of employees not being consulted about their opinion of changes that impact them directly.

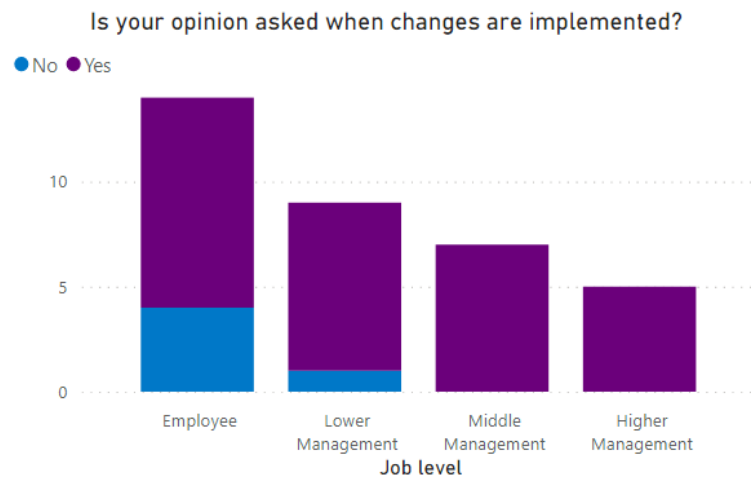


Figure 4.2: Survey results showing if someones opinion is asked based on job level

Do you see the personal or business advantage of implemented changes?

As mentioned in subsection 2.2.10, Technology Acceptance Model, perceived usefulness, defined by Davis (1989) as "the degree to which a person believes that using a particular system would enhance his or her job performance", is an important part in implementing change.

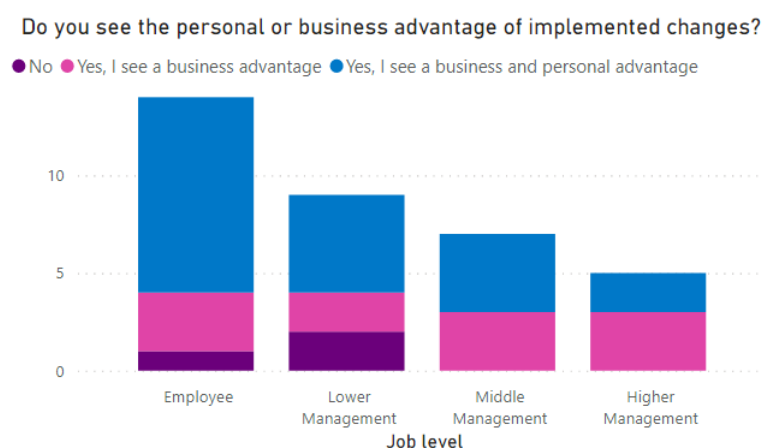


Figure 4.3: Survey results showing if someone sees the personal or business advantages of implemented changes based on job level

This perceived usefulness can also translate in employees getting stuck in the first stages of

grief, as described in subsection 2.2.3. As they do not see the usefulness of the change they will remain in shock, denial or keep being frustrated about the change being implemented.

15 out of 35 respondents say they do not see any advantage or only see business advantages. This translates to 42% of respondents not being involved enough for them to perceive personal advantage as well.

4.1.2 Research question 2

How can Change and Adoption be applied? There are multiple Change and Adoption methods that provide instructions on how change and adoption can be applied. The following table shows an overview of the aspects of change and adoption and the methods that describe these aspects. In this table the key aspects of the MotionChange model have been taken as main pillars to show that the MotionChange model has been created using multiple aspects of different Change and Adoption methods.

| | DOI | CBAM | TAM | UTAUT | ADKAR | MotionChange |
|---|-----|------|-----|-------|-------|--------------|
| <i>Group different kinds of adopters</i> | x | x | | x | | x |
| <i>Show relevance of the change</i> | x | x | x | | x | x |
| <i>See if change is compatible with values, experiences and needs</i> | x | x | | x | x | x |
| <i>Show the impact of the change</i> | x | x | | x | x | x |
| <i>Ask for input</i> | | x | | | x | x |
| <i>Compare needed skills to available skills</i> | | | x | | x | x |

Table 4.1: Comparison of the discussed Change and Adoption methods

According to the ADKAR model, the Technology Acceptance Model and the Concerns Based Adoption Model perceived usefulness of an innovation is the first step to see the importance of setting goals. A response given on this behalf states the importance of motivation and willingness to strive for goals. *"Bij een gedragen begroting, zijn doelen haalbaarder en beter aligned. Dit zorgt voor extra motivatie en dus meer bereidheid de doelen na te streven".*

Job-level has an influence in the willingness to pursue goals, as the awareness is often higher in higher management positions. As you can see in figure 4.4 the survey results support this statement as only one person answered "No". However this negative response can be interpreted as positive as this person only responded "No" because their involvement cannot increase during the year as they are already participating in every step of the process *"Ik ben al gedurende het jaar volledig betrokken bij begroting en forecast."*

The responses in middle management are similar to higher management and provide similar

responses when answering "No" regarding participation. *"Ik ben al zeer bereid om de doelen van de organisatie na te streven"*. When looking at lower management, participation in the budget decreases and respondents are therefore more inclined to leave the answer "Blank" or responding with "No" based on the decreased perceived usefulness of the budget. On employee level this decrease shows even more.

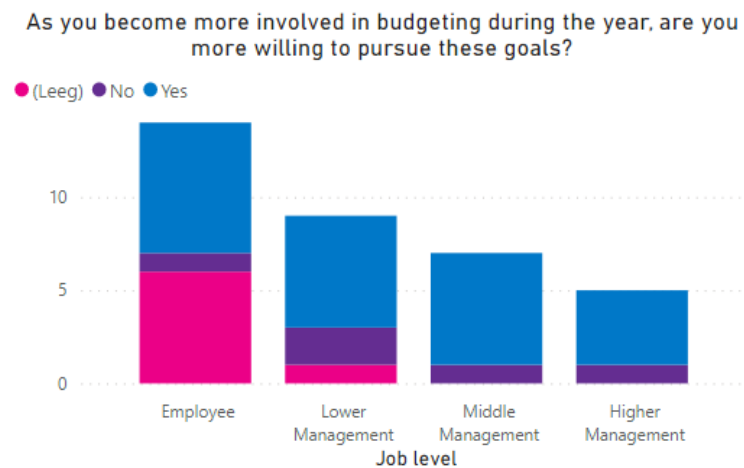


Figure 4.4: Survey results comparing the willingness to pursue goals versus job level

According to the Unified Theory of Acceptance and Use of Technology age influences performance expectancy, effort expectancy and social influence. These constructs all connect to the willingness of being involved in realising goals. As you can see in figure 4.5 the difference is not as clear as shown in figure 4.4, but still shows some increase in negative responses.

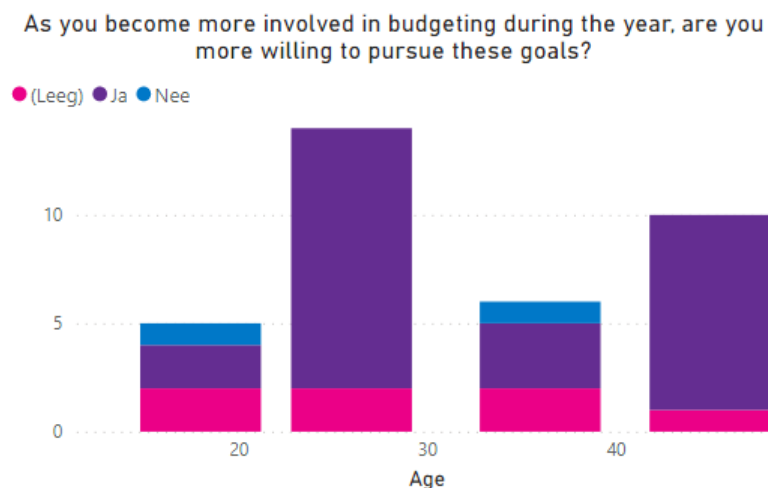


Figure 4.5: Survey results comparing the willingness to pursue goals versus age

Part of Kotter's 8-step change model, subsection 2.3, is the sense of urgency. This is the

attention span a person has regarding a change. At the start of a change process, it invariably appears that a lot of interest, awareness of urgency and willingness to cooperate is released. The attention span will subsidise after a short while. It often happens that a change process largely disappears from the spotlight. *"Bij de implementaties van veranderingen die ik heb meegemaakt, wordt altijd nog een evaluatie moment gepakt: wat gaat goed, wat kan beter? Hierdoor wordt ook gecreëerd dat iedereen hier bewust bij betrokken blijft en het beste uit de verandering wilt halen."* It is important to keep people involved in the process to keep the interest peaked.

As discussed in sub-chapter 2.2.9 it is important to refocus (step 7 of the Concerns Based Adoption Model). Refocusing looks at the ideas of people that, in their believe, might actually work better. Taking these ideas into account can improve the involvement of the teams. *"Ik voel me altijd betrokken bij het werk wat ik doe, ook in de nazorg. Het is toch een visitekaartje wat je aflevert, of dat nou bij de klant is of intern."*

The employee dependant pillars, as shown in figure 2.16, consisting of mindset & behaviour, digital skills and culture, all focus on the willingness and ability of employees. If they do not feel able, *"Ik voel me hier nog niet comfortabel genoeg bij, maar ik zou het wel graag willen"*, it is important to show that their input might be more useful then they believe. According to theory they need to want to adopt, see the use of the adoption on a personal level and possess the skills needed to implement the change (Witjes, 2021).

Corporate culture is of influence on this level. *"Ja, al weet ik niet welke informatie nuttig zou kunnen zijn bij het vaststellen van een begroting. Lijkt me ook interessant om mee te doen en daarmee te kijken hoe het werk van het management eruit ziet."* As described in the Diffusion of Innovations theory this process does not happen simultaneously in a social system (or culture). Another factor is described in the Concerns Based Adoption Model. The key assumptions, as described earlier, are that change is a process that takes time, individual needs should to be the focus, and it cannot be rushed or pushed.

These limitations show the importance of Change and Adoption methods. The respondents in this research want to provide input, but do not feel enabled to do so. *"Ik heb hier niet de juiste inzage en kennis over"*. Out of fourteen verbal responses explaining their reason to provide input or not, three responded positive, but hesitant, which translates to 21% of all responses.

4.1.3 Research question 3

What is the effect of a dynamic budget? The perceived effect of a dynamic budget will depend on job-level and or age according to most Change and Adoption methods. In figures 4.6 and 4.7 the perceived usefulness of the dynamic budget according to the survey results are depicted.

Figure 4.6 shows the perceived usefulness of a dynamic budget compared to job-level. As you can see not only the response rate increases, but in higher management positions people are more inclined to think that a dynamic budget has a positive effect on the financial stability of an organisation.

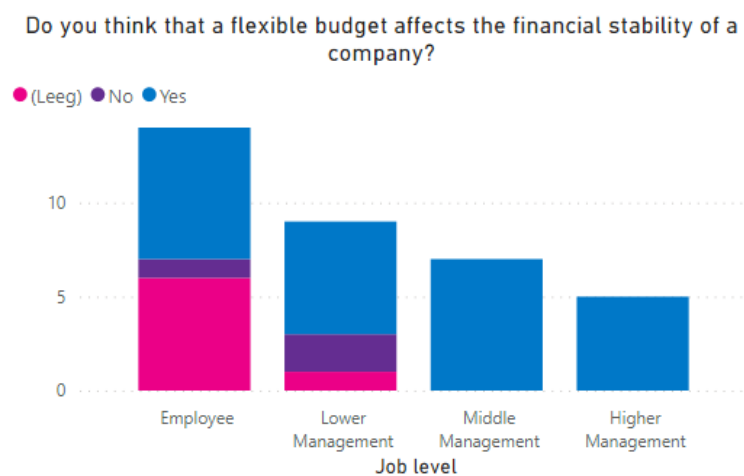


Figure 4.6: Survey results comparing the perceived usefulness of a flexible budget versus job level

Figure 4.7 shows the perceived usefulness of a dynamic budget compared to age. As you can see the negative responses increase by age. According to theory about Change and Adoption methods people in higher age groups are more inclined to think that new methods will not improve business results and are therefor less inclined to work with the new methods.

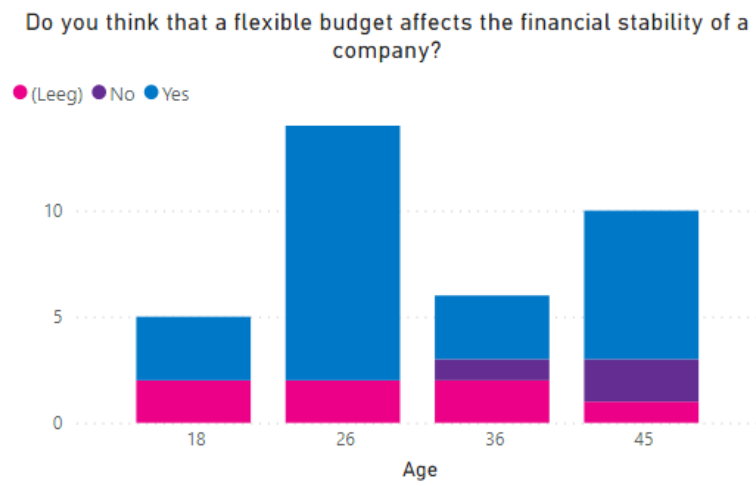


Figure 4.7: Survey results comparing the perceived usefulness of a flexible budget versus age

Chapter 5

Discussion

5.1 Limitations

All research studies have several limitations; this study is no exception. As previously emphasised throughout this thesis, especially in chapter 3, the analysis of the data, interpretations of the findings and the conclusions of the research were subject to a number of limitations. Overcoming these limitations will be the goal of future researches. This section aims at listing the limitations of the research and will state suggestions for future research.

5.1.1 Cultural and personal bias

The first, and foremost, limitation is based on conflicts arising from a cultural and personal bias. This involves the prejudices in a viewpoint that suggests a preference of one culture over another. Cultural bias can be described as discriminating, although my personal believe is that this is not the case in this research as it has no intended cultural bias. Its bias is based on the region of the research and includes only Dutch speaking employees of Dutch companies, which will automatically result in one social group's accepted behaviour as valued and is therefor distinguishable from another lesser valued societal groups. The cultural bias is mainly caused by a persons living area, their social values growing up and by the availability of educational and professional opportunities (III, 2020).

5.1.2 Sample and selection bias

The second research limitation involves issues with sampling and selection. This research was impacted by a sample bias when the COVID-19 crisis prevented people to go out on the

streets to hand out surveys. The possibility to spread COVID-19 decreased the possibilities of handing out surveys as spreading the virus was a real risk.

Posting the survey on social media sites such as Facebook and/or LinkedIn was not a possibility either as this prevented to keep track of the response rate. By only sending the survey to respondents in my social circle and asking them to share it as well, the change of it reaching beyond this social circle was limited. In this case, the people who responded to the survey questions were not truly a random sample.

5.1.3 Social desirability bias

By only being able to share the survey within my own social circle the social desirability bias arose. This bias refers to the tendency of research subjects to provide answers that fall within the socially desirable responses, instead of choosing a response that is reflective of their true feelings. Even though the survey was conducted anonymously people could still feel the need to give socially accepted answers (Grimm, 2010).

Sharing the survey only within ones own personal social circle can also impact the survey results. This can be derived from the surveys response rate, as a high response rate is likely driven by a strong personal relationship between business and customer, or in this case survey taker and respondents (Willott, 2019). The survey was send to 40 participants and had 35 respondents, which translates to a response rate of 87,5%.

5.1.4 Methods/instruments/techniques used to collect data

Looking at the "motivate you answer"-responses some of the survey questions should have been formulated more clearly. Multiple people responded "No" when asked if they would want to increase the amount of input they provide for the budget. However, this answer did not always come from a point of view that was based on unwillingness, but rather meant that they already provide a lot of information for the budget and simply do not think they can provide any more than they already do. *"Ik ben al gedurende het jaar volledig betrokken bij begroting en forecast."*

The formulation of the questions also made it difficult to combine the results, as the results showed a far more negative result than the verbal responses showed. By replying "No" it seemed as if they did not want to provide input, but their verbal responses showed they are already involved on a higher level.

The sampling is likely to have a selection bias, a distortion of evidence arising from the way that the data is collected (Thomas, 2017), as this sample comes from the personal circle of the researcher even though it is attempted to take a random sample.

When combining the results of the survey it was not entirely possible to combine age and job level in one visualisation of the survey data even though these two aspects of change are the most important aspects in the research. According to theory if a person is young (this being the general definition of young used in earlier theory) or in a higher management position they are expected to be more open to change than an older person or someone with lower job-level.

The survey results of this research, however, showed that almost everyone tended to be open to change. This seems to be a contradiction with theory, however when conveying a research into the group respondents it showed that most of the respondents were either young, in a management position, or both, thus confirming that it is logical that the general consensus of the survey results are positive regarding change.

5.2 Suggestions for further research

The survey results showed little difference between people of different ages and/or function levels. Future research might make a better distinction in researching different types of employees. By interviewing more people of different ages in the same function level a better distinction in results might show. This might be done by selecting companies that have a clearer hierarchy in which it is clearer that employees are less able to provide input. Surveying a larger group of respondents makes it more likely that there will be older respondents that are not in management positions to (possibly) prove that theory is correct in the sense that an older person that is not in a management position is less open to change.

The selection bias could have been avoided by making a conscious effort to gather responses from different subgroups that make up the population of interest. By defining a clear target population, parameters for sample selection and by stating a clear sampling frame it would be easier to make this conscious effort. It is also important to follow up on participants that do not respond to the survey requests (Blog, 2021).

Chapter 6

Conclusions

According to Wolf (2019) the current primary issues in traditional budgeting are quite similar to the ones stated by Arterian (1998). Creating the traditional budget is highly inefficient and weaknesses may lead to business under-performance (Cardoş et al., 2014). Change on the other hand seems to be hard to implement as every change might cause resistance. To activate, and motivate, people and to involve them in a new way of budgeting the organisation needs to be set in motion.

The goal is to change the basic behaviour of employees and reach optimal results within a short period of time (Laudius, 2021). It is important to create a sense of urgency by showing employees the why, what and how of a change. The aim of this research was to see the impact of Change and Adoption on the implementation of a flexible budget.

This research should be able help to lead to a fuller comprehension of the relationship between the adoption process of a new tool or technology and its impact on business value.

In terms of its academic contribution, the aim of this research is to be seen as investigative. It hopefully helps to builds towards a productive implementation of a flexible budget in an unperceptive, commercial environment. As the research examines poorly comprehended issues in a rich but difficult-to-control environment, caution must be taken when assessing outcomes. Keeping in mind the limitations of the exploratory design, theoretical contributions may be achieved.

The theoretical research focused on the implementation of the MotionChange model and the way this was created. As shown in subsection 4.1, subcategory research question 2, the MotionChange model contains multiple parts of different Change and Adoption methods,

where the main influence is the ADKAR model.

Keeping in mind the possible applicability of the study, in terms of managerial contribution, the claim should be just as modest. The findings of this study may be useful to managers and employees of technology related companies, researchers, and other industries and sectors in The Netherlands. However, the findings of this study will be most useful for the following stakeholders:

- Senior managers of technology aimed companies that focus on the budget and on improving business value of the budget, because they deal with a managerial issue of strategic importance as well as performance.
- General managers and consultants working for technology aimed companies, because they investigate problems relating the adoption of new technologies in environments that are uncertain.

Budgeting is the method of translating financial resources into human purposes. As described in the introduction budgeting is used by management for planning, coordination at the start of the year, steering during the year and evaluation of activities and business lines, motivational support, evaluation of staff performance and for supporting the internal control system of the organisation ((Chenhall and Langfield-Smith, 1998), (de With and Dijkman, 2008), (Angelakis et al., 2010), (Al and McLellan, 2011) and (Yalcin, 2012)). A new form of budgeting, the flexible budget, can overcome most of those weaknesses as it is prepared at each analysis period rather than in advance (Franklin et al., 2019).

Possible Change and Adoption methods are: Lewis's change management model, Kotter's 8-step change model, the Kubler-Ross change curve, McKinsey's 7s model, plan-do-check-act, the Bridges transition model, ADKAR, Rogers's Innovation of diffusion theory, the Concerns-Based Adoption model, the Technology Acceptance Model and the United Theory of Acceptance and Use of Technology. These models all focus on the people side of change and look into the different phases an employee can be in. They all show employees will be more resistant to the change in the early stages as they might experience a form of grief over the things they perceive will be lost after the change.

By involving employees in the change process they probably will be more likely to see the perceived usefulness and thus will probably be more keen to change. These phases are different for everyone and employers or change managers should consider to take this into account. When pushing someone to change, their resistance will likely grow and their trust

will likely decrease. This, however, is an important part of efficiently implementing change.

There are three main findings drawn from this research:

- Both according to the survey results and the theory, people in higher management positions are supposed to be more willing to pursue the organisational goals
- According to the survey results age seems to have a smaller impact on the willingness to pursue organisational goals
- Both according to the survey results and the theory, a flexible budget does seem to affect the financial stability of a company

6.1 Future work

Many different adoptions, tests, and experiments are left for future research due to lack of time and/or lack of access. Future work concerns deeper analysis of particular models, new proposals to try different methods, or simply put: curiosity.

The following ideas could be tested:

1. It could be interesting to consider expanding the regions of the research. The impact of culture in different parts of the world might also impact the way people look at change regarding budgeting. As this research was focused on Dutch culture, it could be interesting to re-do the research in different cultures.
2. Future generations might have a different view on how to process things and on the importance of budgeting and thus the flexible budget. Influences on future generations might be fundamental to new working methods and will thus influence their capability and willingness to put energy into change.

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Appendix A

Survey results

This Appendix should not be published in any form.
It was added at the request of the supervisors.

Contents: Survey results.