

IS REMOTE WORK HERE TO STAY? A CHOICE-BASED CONJOINT ANALYSIS STUDY OF EMPLOYEE PREFERENCES IN THE POST-PANDEMIC JOB MARKET.

Master's Thesis  
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Abstract

Hybrid working culture has become the new normal after global pandemic. This disruption in working life gives an opportunity to examine the preferences for expert work, for knowledge workers that are often educated and work at an office, with the possibility for remote work. This study tries to first bring more understanding to the attributes that knowledge workers see important whilst seeking a new job. This qualitative analysis is done based on the findings from focus group interviews, which were held to knowledge workers who have been working remotely during or after the pandemic.

Based on the most valued attributes, we further continue the analysis around knowledge worker preferences with a survey. In the survey we utilize choice-based conjoint analysis (CBC) and latent class analysis (LCA) to see if we can identify clusters with different preference structures, or to put different employee profiles another way. In addition to this, we also examine the willingness-to-pay (WTP) in salary for the option to work remotely. The WTP is measured by both direct and indirect methods.

We received 846 respondents in total to the survey, and after identifying “bad” respondents we were left with 444 respondents to the final analysis. The main findings show that our research around the most valued attributes while seeking a new job backs up the latest literature and convenience related values are seen important whilst seeking a new job. We were also able to distinguish different employee profiles with heterogeneous preference structures from the respondent data. The WTP-analysis proved that many people would be willing to reduce their salary to some extent in exchange for more flexibility. The WTP results from direct and indirect questions were differed, which is in line with previous literature.

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**Keywords** employee preferences, work values, CBC, WTP, remote work, latent class analysis

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**Työn nimi** Onko etätyö pysyvä ilmiö? Valintaperusteinen yhteisanalyysitutkimus työntekijöiden mieltymyksistä pandemian jälkeisillä työmarkkinoilla.

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**Tiivistelmä**

Hybridityöskentelystä on tullut uusi normaali, maailmanlaajuisen pandemian jälkeen. Tämä työelämän murros antaa mahdollisuuden tarkastella tietotyöntekijöiden mieltymyksiä työtä kohtaan. Tässä tutkimuksessa pyritään ensin ymmärtämään paremmin attribuutteja, joita tietotyöntekijät pitävät tärkeinä etsiessään uutta työpaikkaa. Tämä analyysi perustuu tuloksiin, jotka saatiin pandemian aikana tai sen jälkeen etätyötä tehneille tietotyöläisille tehdyistä fokusryhmähaastatteluista.

Arvostetuimpien attribuuttien perusteella jatkamme tietotyöntekijöiden mieltymyksiä koskevaa analyysia kyselytutkimuksella. Kyselyssä hyödynnämme valintoihin perustuvaa conjoint-analyysia (CBC) ja latenttiluokka-analyysia (LCA) nähdäksemme, pystymmekö tunnistamaan klustereita, joilla on erilaiset preferenssirakenteet, toisin sanoen erilaisia työntekijäprofileja. Tämän lisäksi tutkimme myös maksuhalukkuutta (willingness-to-pay, WTP) palkan menetyksenä etätyömahdollisuudesta. WTP:tä mitataan sekä suorilla että epäsuorilla menetelmillä.

Saimme kyselyyn yhteensä 846 vastaajaa, ja "huonojen" vastaajien tunnistamisen jälkeen lopulliseen analyysiin jäi 444 vastaajaa. Tärkeimmät tulokset osoittavat, että tutkimuksemme arvokkaimmista ominaisuuksista uutta työpaikkaa etsittäessä tukee uusinta kirjallisuutta ja että työnteon mukavuuteen liittyviä arvoja pidetään tärkeinä uutta työpaikkaa etsittäessä. Pystyimme myös erottamaan vastaajatiedoista erilaisia työntekijäprofileja, joilla on heterogeeniset preferenssirakenteet. WTP-analyysi osoitti, että monet ihmiset olisivat valmiita alentamaan palkkaansa jonkin verran saadakseen lisää joustavuutta. Suorista ja epäsuorista kysymyksistä saadut WTP-tulokset erosivat toisistaan, mikä on linjassa aikaisemman kirjallisuuden kanssa.

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**Avainsanat** etätyö, hybridityö, conjoint-analyysi, työnmurros, willingness-to-pay, preferenssit, työn arvot

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## 1 Introduction

During the global Covid-19 pandemic, remote work became the sudden norm for knowledge workers across the globe. Companies and employees alike needed to rapidly adapt to the new ways of working to combat the spread of the virus.

The digital transformation of work had been ongoing for years before the pandemic, and companies were discovering that working was not restricted to any central location. Digital nomads were on the forefront of this transformation, often working remotely from anywhere in the world. Some office workers were often working remotely a few days per week, but remote work was still considered a luxury that only a minority of companies offered.

Companies and individuals who were already utilizing technology and virtual tools for communication and collaboration were able to seamlessly transition to remote work during the pandemic. They were able to take advantage of the benefits of remote work, such as increased productivity, reduced costs, and the ability to attract and retain talent from a wider geographic area.

On the other hand, companies and individuals who were not prepared for the shift to remote work struggled with challenges such as difficulty in communication and collaboration, lack of proper technology and tools, and difficulty in maintaining work-life balance.

The job market and ways of working transformed immensely during lockdowns, government mandates, and company policies which enforced remote working. Institutions shortly realized that performing some operations and tasks such as meetings, work trips, negotiations, etc. remotely, not only saves resources and improves efficiency, but can also give employees a sense of autonomy and increase engagement. While this is true for some

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tasks and operations, others such as team building, collaboration and brainstorming can prove more difficult and burdensome.

Herein lies the challenge, how companies are supposed to optimally set their working guidelines, the balance between home office vs. office, in the post-pandemic era? A trend can be seen in tech, for example, an industry known for being the forefront for transformative ways of working. Some of the biggest companies in tech, who were initially all in for giving their employees full autonomy in choosing how they wish to work, are now reverting their minds and demanding a return to the offices. For example, Apple has proposed that employees “*must work at the office at least 3 days a week*” (Hern, 2022). The article quotes Apple CEO, Tim Cook, who states that:

*“We are excited to move forward with the pilot and believe that this revised framework will enhance our ability to work flexibly, while preserving the in-person collaboration that is so essential to our culture.”*

Tesla proposed a similar, although stricter guideline, where the company has “*doubled down on the remote work ban and is tracking office attendance*” (Turner, 2022). Tesla CEO, Elon Musk, was quoted saying:

*“Anyone who wishes to do remote work must be in the office for a minimum (and I mean \*minimum\*) of 40 hours per week or depart Tesla.”*

We are seeing this increasingly across companies and industries, the concept where employees are given more autonomy in choosing how they wish to work, but the companies still want some level of control and mandate some physical office presence. The argument for physical presence (albeit a good one), is that it enhances collaboration and team spirit, something which feels forced and inefficient via Teams calls.

## 1.1 Research objectives and questions

The authors of this research recognize their own motives and values when it comes to the question of working preferences. As we find this transformation highly interesting, we wish to understand this phenomenon more in depth.

The purpose of this thesis is to gain knowledge about the attributes that employees, more specifically knowledge workers, value whilst seeking a new job. For this study, a knowledge worker is defined as a person whose work tasks are mostly location-independent and can be performed remotely. This thesis aims also to form an understanding of how knowledge workers value the possibility of remote work in the post-pandemic era. We aim to find whether people would be willing to sacrifice monetarily if they would gain more autonomy in how they choose to conduct their work. Additionally, we hope to identify different clusters of employee profiles based on our findings and see how their values and preferences differ.

The main benefitters from the findings are mostly employer-related, namely HR (Human Resources) and managerial positions. Understanding the values and needs of current and more importantly future employees is fundamental in both talent acquisition as well as retention. As suggested by Pataki-Bitto & Kapusy (2021), preparing for the post-pandemic era in the job market, companies should research into employee preferences to support management in decision making (Pataki-Bitto & Kapusy, 2021).

If the values and ways of working are not aligned with the upcoming working generation, employees are more likely to experience some degree of internal conflict and eventually seek out opportunities at companies where their values and needs are more aligned. (Ludolf, do Carmo Silva, Gomes, & Oliveira, 2017)

1. What are the attributes that knowledge workers value most when they are seeking a job?
2. Is it possible to identify clusters among respondents with different preference structures and if so, what are those clusters like?
3. Are open questions regarding willingness-to-pay consistent with the respondents' indirect preferences measured via choice-based conjoint analysis? \*

\*Note: Willingness-to-pay refers to how much a person is willing to pay for a product, feature, or service.

## **1.2 Structure of the thesis**

In Section 2, we review the pertinent literature surrounding the topics analyzed in this study. This is followed by an outline of the research methods in Section 3. Section 4 details the study design, including the focus group interview process and results, as well as the development of the attributes and implementation of the survey. The section also brings insights on how the survey was designed, tested, and distributed. Section 5 starts with discussion regarding how the bad respondents were removed followed by the results from latent class - and willingness-to-pay analyses Finally, in Section 6, we reflect on the implications of the findings and propose directions for future research.

## 2 Literature review

In our literature review, we first examined research related to values in general, work values and work value theories; what are work values and work value theories, and how this forms the basis for our research.

Then, as our research focuses on remote work, we studied literature related to remote and hybrid work, a concept that has been widely adopted following the Covid-19 pandemic. We go through the history of remote work, its evolution and the preferences that affect the likeliness of an employee engaging in remote work.

Finally, we examined literature regarding willingness-to-pay (WTP); what is it and how it can be used to measure how much employees value remote work.

### 2.1 General values and work values

*Values* refer to the beliefs which steer individuals to certain actions that they believe will place them in some desirable end-states. *Work values* refer to the same concept, except the setting of the values is strictly confined to the workplace and the values are much more particular than general *values*.

To start, it is important to define what is meant when discussing work values and a study of work values requires a clear definition of the term. Individuals are motivated by activities and outcomes which they value (Maslow, 1943).

According to Elizur et al. (1991), previous literature often defines values as affecting behavior. They suggest that value is any entity on which high importance is placed upon, and that work values are such entities in this context (Elizur, Borg, Hunt, & Beck, 1991).

Judge & Bretz (1992), define that the preferences which individuals deem formidable and important in seeking new employment, are defined as work values. Moreover, they agree that organizational work values are a significant factor in job choice decisions and that individuals are more likely to choose employment for a company, where their own values align with those of the employer (Judge & R.D Bretz, 1992).

Schwartz & Ros (1999) define work values as basic individual values or beliefs, that guide individuals to obtain their desirable end-states or behavior. In their approach, work values are more related to goals at the workplace, and they are much more particular than basic individual values (Schwartz, Ros, & Surkiss, 1999).

In more recent literature, Pataki-Bitto and Kapusy (2021) discuss the transformation of work environment post Covid-19 and the work values of the future. They define work values to be the attributes that individuals value and place importance upon in employment related decision making, which are strongly connected to the satisfaction and motivation of the individual (Pataki-Bitto & Kapusy, 2021).

According to Rosenthal & Masarech (2003), having experienced and adept employees is not enough, if those employees don't share the company values (Rosenthal & Masarech, 2003). The recruitment of employees who do not share the values of the company may cause non-values-aligned behavior for those employees (Shimasaki 2014 in Frid & Nordnanås, 2017).

## **2.2 Work value theories**

Work value theories and the different categories of work values are important to understand in the context of our study. They provide a framework to help us later discover the work values that individuals consider important in job seeking. This section examines the different categorizations of work values and studies in previous literature.

One of the most prominent and original work value theories was formulated by Porter & Lawler, a simple categorization of work values as *intrinsic* and *extrinsic* values (Porter &

Lawler, 1968). *Intrinsic* motivation or internal motivation refers to such motivation where the individual entails in an action for the purpose of joy or satisfaction rather than for some external reward. Adversely, *extrinsic* motivation or external motivation refers to engaging in action for the purpose of an external reward or praise. *Intrinsic* and *extrinsic* motivation are thus the foundation of individuals' preferences regarding work values.

Soon *social* values were included in the work values categorization as the next critical dimension in work value theories (Pataki-Bitto & Kapusy, 2021). Social values can be considered as values that focus on social needs such as teamwork, team building and spirit (Pataki-Bitto & Kapusy, 2021).

The three types of work values, *intrinsic*, *extrinsic*, and *social* values are very much related to the dominating theory of basic human (general) values (Schwartz, Ros, & Surkiss, 1999), which include two main values: openness to change/conservation as well as self-transcendence/self-enhancement. *Intrinsic values* parallel openness to change and the pursuit of autonomy & growth (Schwartz, Ros, & Surkiss, 1999). *Extrinsic values* can be compared to conservation values, appreciating security & stability (Schwartz, Ros, & Surkiss, 1999). Social values are considered as self-transcendence values, where work is considered as an outlet for positive social interaction and contribution to society (Schwartz, Ros, & Surkiss, 1999).

Schwartz, Ros & Surkiss (1999) recognize an additional fourth dimension in work values. They suggest an additional dimension for *power* and *prestige* in work values categorization, which parallels self-enhancement (Schwartz, Ros, & Surkiss, 1999). Basic self-enhancement values are values that highlight the importance of an individual's success and power over other individuals, such as power and achievement (Schwartz, Ros, & Surkiss, 1999).

Pataki-Bitto & Kapusy (2021) refer to this additional fourth dimension as the *growth/power* dimension. It includes preferences such as career and professional development, status, and corporate image (Pataki-Bitto & Kapusy, 2021).



A fifth dimension, *leisure*, is suggested by Twenge et al. (2010). This refers to free time, vacation, and freedom from supervision (Twenge, Campbell, Hoffman, & Lance, 2010). Pataki-Bitto & Kapusy (2021) categorize this as convenience. By this they refer to support systems surrounding life at work, work-life balance, and physical and mental health.

The work values theory of Pataki-Bitto & Kapusy (2021) recognizes five different dimensions of work values and includes most of the attributes that Gen Z consider when looking for a job. They point out that their theory differs from existing ones, as the convenience integrates the desired lifestyle and well-being of the employee (Pataki-Bitto & Kapusy, 2021). Their framework of the work values can be found below in Figure 1.

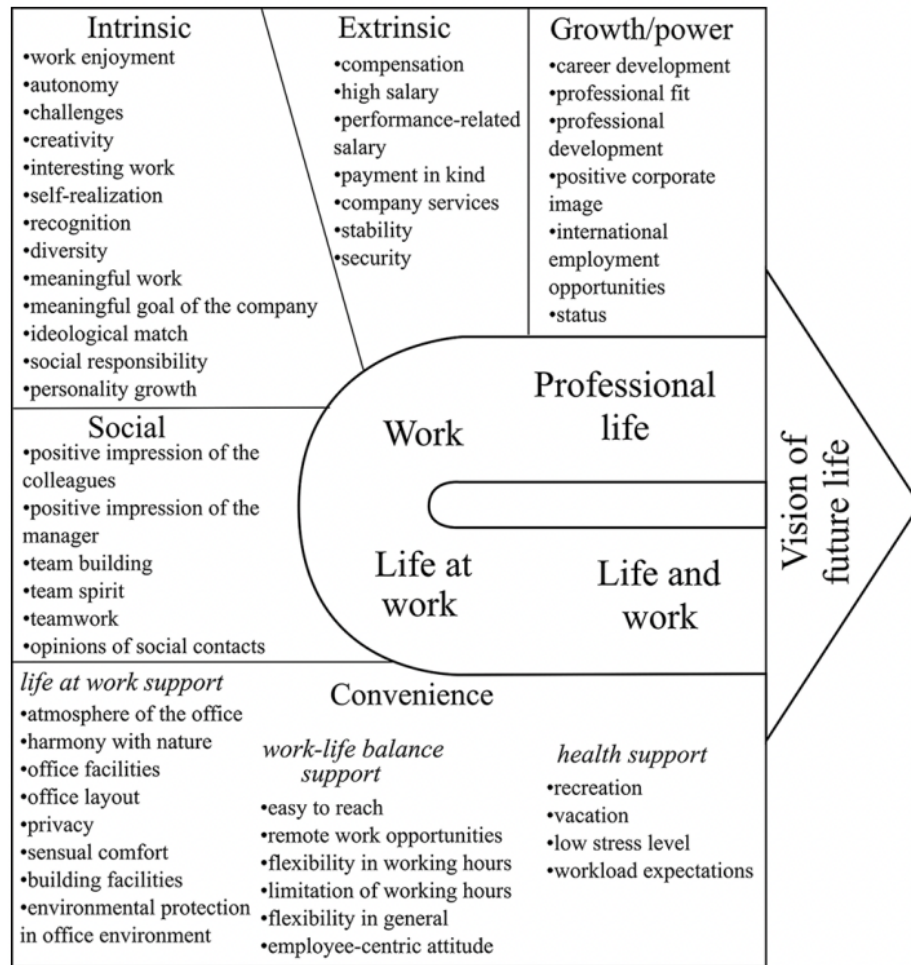


Figure 1. Work value categories of Generation Z (Pataki-Bitto & Kapusy, 2021).

Findings from Pataki-Bitto & Kapusy (2021) suggest, that although the core work values which individuals generally favor alternate slightly between generations, they typically remain relatively the same. Twenge et al. (2010) found that the largest generational difference of work values related to *leisure or work-life balance*. Generation Z valued leisure more highly than Generation X and Baby Boomers, but they simultaneously valued extrinsic rewards more than Boomers, suggesting the notion that this generations wants to work less while earning more (Twenge, Campbell, Hoffman, & Lance, 2010).

### **2.3 Evolution of remote and hybrid work**

As early as 2007, global estimates found that based on the amount of remote work, Finland is ranked as one of the most advanced remote working countries in Europe, widely due to the rapid advances in information and communications technologies (ICT) in Finland (Helminen & Ristimäki, 2007).

Although the pandemic forced the rapid adaptation of remote work across the globe in 2020, the concept, and the term teleworking (*remote work*), was first introduced in the 1980s (Nilles, 1988). According to Nilles (1988), it refers to the concept of working from home (abbreviated as WFH) with the help of technology, to reduce travel time and expenses that went into client meetings and such. Much like the hybrid work models of today, Nilles (1988) recognized that most teleworkers share time between the home office and the actual office, saving different tasks to work on at home and others to work on at the office.

Messenger & Gschwind (2016) note that the vastly accessible “cloud-based work” from anywhere on the globe makes the term “teleworking” sound outdated. They propose that the introduction of personal telephones and computers was the catalyst for the relocation of traditional office work closer to the homes of the employees (Messenger & Gschwind,

2016). Thus, the authors suggested three different terms for the stages of teleworking over time: *home office*, *mobile office*, and *virtual office*.

According to Messenger & Gschwind (2016), the literature on first-generation remote work revolves around the concept of a *home office*. Home offices are stationary, as the technology of that time was incapable of the mobilization of employees (Messenger & Gschwind, 2016). When technology advanced and scholars finally agreed that work could not only be done at the office and at home, but also locations outside of this domain, the term *mobile office* was coined (Messenger & Gschwind, 2016). Rapid advancements in technology (e.g., cloud applications) made offices *virtual*, meaning almost all office-work can be done from anywhere around the globe (Messenger & Gschwind, 2016).

The concept of remote work has been around for more than four decades. The advancements of ICTs in recent years have made remote work more efficient for knowledge workers (Asatiani & Penttinen, 2019). Asatiani and Penttinen (2019) note that for example accounting firms with advanced accounting information systems could have in theory organized their work completely virtual, however in practice this has not been the case (Asatiani & Penttinen, 2019).

Although remote work has been growing steadily over the decades (Messenger & Gschwind, 2016), advancements in technology were clearly not enough to revolutionize remote work, and it needed an event such as the Covid-19.

According to Eurostat (2021), before Covid-19 the percentage of employees (aged 20-64) working remotely in EU regions had stayed at a constant 5-6% for the last decade. According to the European Commission (2020), nearly 40% of employees within the EU region began to work remotely because of the pandemic. The trend is similar in the United States, where 25% of employees worked remotely occasionally pre-pandemic, whilst in May 2020 some 42% reported that they work remotely full time (Yavorsky, Qian, & Sargent, 2021). Such growth was purely imposed by the pandemic, as countries and

companies forced strict working-from-home mandates to combat the spread of the pandemic.

The European Commission report (2020) also raises the notion that not all employment opportunities are equal in adopting remote or hybrid work as the new norm. The very nature of some lines of profession makes remote work impossible. In addition, socioeconomic factors affect the likeliness of an individual adopting remote work (European Commission, 2020).

## **2.4 Drivers behind remote work**

There are a multitude of job characteristics and employee related factors that affect how likely (and how well) an individual adopts remote work. Job characteristics are prevalent when considering remote work as some roles are far more suited for it, while others make it impossible due to the nature of the work. There are also employee differences that seem likely to affect the adoption. Factors such as age, gender, commute time and distance, family situation, home suitability and a plethora of others determine whether an individual prefers working remotely or at the office.

### *Job characteristics*

Job characteristics affecting remote work are important to identify for the purpose of our study. In knowledge and ICT-intensive sectors such as finance, banking, legal, marketing and so on, the prevalence of remote work was particularly high within EU regions even before the pandemic and conversely quite low in administrative roles and physical labor (European Commission, 2020).

According to the European Commission (2020), the technical feasibility of individuals' profession was not the only limiting factor in adopting remote work (pre Covid-19). Adoption of remote work varies based on the degree of the worker's autonomy and employers' trust; junior professionals' access to remote work was limited when compared

to their senior counterparts despite working in similar roles (European Commission, 2020). Hence, work autonomy and access to remote work varied based on the employer's trust and readiness to delegate power (European Commission, 2020).

Task interdependence is another job characteristic that affects the accessibility of remote work. Simply put, task interdependence means the degree to which team members are dependent on the work and communication of their counterparts (Thompson, 1967). Hence, when the task interdependence is lower, team members need less interaction with their colleagues to accomplish their goals (Rousseau & Aube, 2006).

### *Gender*

According to Feng & Savani (2020), gender should be considered when considering remote working. They suggest that despite the narrowing of the gender gap and transformation of societal norms, the family role is still central to women's social identity, but not men's (Feng & Savani, 2020). The findings of their study suggest that long-term work from home offices could have negative effects on women's productivity and job-satisfaction (Feng & Savani, 2020). Zhang et al. (2020) found supporting evidence, as their research suggests that males were more likely to work remotely than females.

### *Age*

Rothe et al. (2011) conducted a study in which they identified how preferences in work environments differ among age groups. They discovered that despite the general notion that virtual environments are considered more important to the younger generations, the evidence did not back this notion and slight differences were found between age groups (Rothe et al. 2011). They also suggested that younger generations value teamwork, interaction, and innovative ideas more than their older counterparts.

### *Tenure*

Organizational tenure can be used as a measure of one's familiarity with their organization and culture, as the longer an individual has been with an organization the more accustomed they are with the culture, norms, and expectations (Turetken, Jain, Quesenberry,

& Ngwenyama, 2011). The findings of Turetken et al. (2011) research suggests that individuals with shorter history at a company are often left feeling unsatisfied when working remotely, as they are not familiar with the culture and expectations of a company causing them to experience more stress working remotely (Turetken, Jain, Quesenberry, & Ngwenyama, 2011).

#### *Commuting time/distance*

According to Bailey (2002), research into the motivation behind remote work has focused on transportation related matters, such as commute time and distance. However, transportation time has not proven to be a strong motivator for remote work, despite the general notion that it would be (Bailey, 2002). However, contradicting evidence supporting the original notion has been found in Helsinki, Finland. Research found that the probability of remote increased in relation to the commuting distance, but only 8% stated this as their primary motivation behind remote work (Helminen & Ristimäki, 2007).

#### *Family situation*

Family situation or household composition relates to the preferences, motivation, and success of individuals' remote work. If an individual has a spouse working remotely or young children at home, it affects the decision-making process of choosing whether to work remotely or at the office. Research has found that employees with children are less likely to work remotely compared to those with no children (Zhang, Moeckel, Moreno, Shuai, & Gao, 2020). Additionally, married individuals were less likely to work remotely than single individuals (Zhang, Moeckel, Moreno, Shuai, & Gao, 2020).

#### *Home suitability for office*

At the start of the pandemic, employees fled the offices in droves and shifted to working from home offices. This sudden change of environment led to some people working in poorer conditions than available at the office as not all people have the same work ergonomic opportunities at home.

As Gerding et al. (2021) argue, sub-optimal home office spaces can lead to severe ergonomic issues as well as reduced productivity due to a distressed work environment. Their study found that more than 40% of respondents working from home reported severe discomfort in the head-neck-shoulders area compared to working from the office (Gerding, et al., 2021). Other notable effects were cases of increased stress and tiredness that led to subpar work-life balance (Gerding, et al., 2021).

## 2.5 Willingness to pay

While this study aims to measure the value of different factors of work, in addition we wish to measure how much individuals are willing to pay for the possibility of remote work. We measure that in two ways, asking directly and asking indirectly. To examine such a hypothetical situation, where an individual must consider how much money they are willing to give up, to obtain more of attribute Z, a look into the literature of willingness-to-pay (WTP) is material.

Willingness to pay simply means the maximum amount an individual is willing to pay for a product or a service (Stobierski, 2020). We want to measure the amount an individual is willing to “pay” or in other words, give up out of their salary, to obtain more of another attribute. Here such an attribute is the possibility of remote work in a situation where remote work is not possible.

Breidert, Hahsler & Reutterer (2006) performed a literature review on previous research of the various methods of measuring WTP. They suggest that on a higher level, methods can be classified as whether they utilize surveying techniques or whether they use actual or simulated data (Breidert, Hahsler, & Reutterer, 2006).

They refer to data gathered from surveys as *stated preferences*, and actual or simulated data as *revealed preferences* (Breidert, Hahsler, & Reutterer, 2006). Due to the unavailability of actual data of preferences, we will focus on *stated preferences* in

measuring the measurements. The high-level classification framework of their literature review is found in Figure 2.

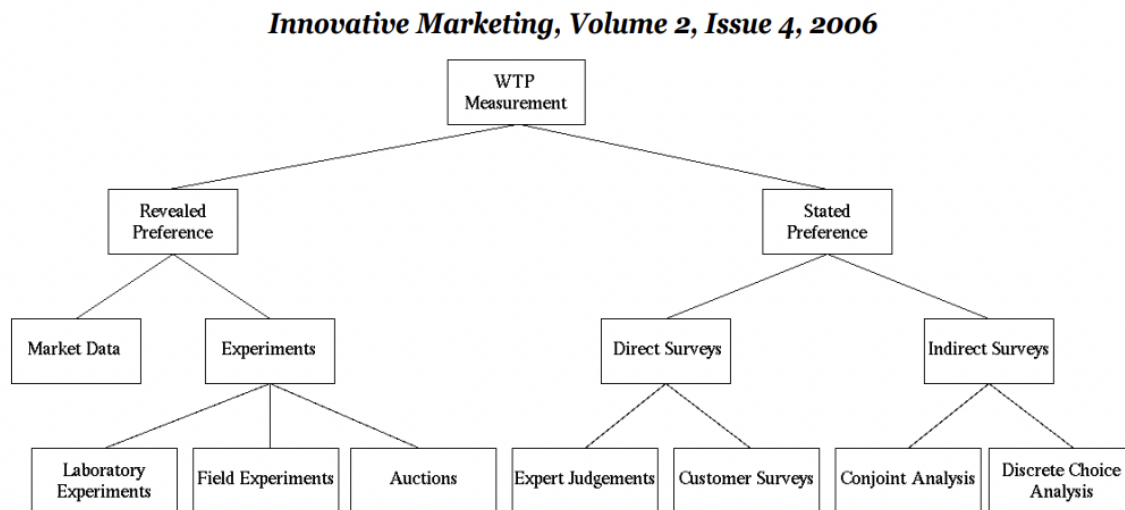


Figure 2. Classification framework for methods of measuring willingness-to-pay (Breidert, Hahsler, & Reutterer, 2006).

### *Direct surveys*

When attempting to forecast employee behavior in relation to different prices (*salary*), one approach is to ask them directly (Breidert, Hahsler, & Reutterer, 2006). This is referred to as *direct surveys*. One of the earliest, yet still used methods for measuring WTP, were two questions constructed by Marbeau in 1987 (Marbeau, 1987 in Breidert, Hahsler, & Reutterer, 2006):

1. "Above which price would you definitely not buy the product, because you can't afford it or because you didn't think it was worth the money?"
2. "Below which price would you say you would not buy the product because you would start to suspect the quality?"

This way of directly asking for certain price points has since been refined, and two more questions have been proposed where the respondents are asked for a reasonably expensive price and a reasonably cheap price for the same product/service, to act as a sensitivity meter (Breidert, Hahsler, & Reutterer, 2006).



Another popular, more recent approach is a commercial tool called BASES Price Advisor by ACNielsen, in which the subjects are asked at which price points they deem a product or a service to be of *exceptionally good value, average value, and relatively poor value* (Braidert, Hahsler, & Reutterer, 2006).

Thus, the direct approach is a simple tool to estimate certain price points for products and services. However, Braidert, Hahsler & Reutterer (2006) point out that the direct approach does come with downsides:

1. This method puts heavy emphasis on the price, which can undermine the importance of some of the other attributes.
2. Respondents might inflate their true prices because of prestige or adversely deflate their true prices due to collaboration effects.
3. Directly asking for a respondent's true WTP can prove to be a cognitively demanding task for respondents, and bias is likely to occur in such a task.

#### *Indirect surveys*

Stated choice (or *stated preference*) methods are widely used to illuminate individuals' WTP for specific attributes (Hensher, Rose, & Greene, 2005). With this method, instead of asking the individual for an exact price point, the individual is presented competing alternatives and their prices to which the individual can assign ratings, ordering or choose their most preferred choice (Braidert, Hahsler, & Reutterer, 2006).

It has been suggested that it is easier for an individual to decide whether an explicit price for something is acceptable rather than the individual choosing a certain price themselves (Brown, Champ, Bishop & McCollum, 1996).

One should keep in mind, that research has found that the increase in the complexity of the choice set might jeopardize the consistency of the choices an individual makes, which in turn can prevent the choices from being explained by the underlying preferences (Hensher, Rose, & Greene, 2005). However, complexity does not automatically multiply when the

quantity of information increases, as designs with a small number of alternatives may be complex to some individuals, in the case that the individual expects more information than what is available, and that they deem the information is relevant in making the decision (Hensher, Rose, & Greene, 2005).

Another notable issue to consider arises when analyzing the responses from a survey. Hensher, Rose & Greene (2005) discuss how individuals participating in stated preference experiments are often assumed to have examined *each of the attributes* for the basis of their choice. However, previous research suggests that individuals may ignore some of the attributes as respondents often have differing information processing techniques (Hensher, Rose, & Greene, 2005).

Respondents might ignore specific attributes as a coping strategy to deal with the complexity of the task, think that the benefits of evaluating a certain attribute are less than the cost of evaluating it or that they might not consider an attribute as it is truly not relevant to their decision making (Hensher, Rose, & Greene, 2005). Despite this, they point that estimations are often done assuming as if all the attributes have influenced the outcome to some level (Hensher, Rose, & Greene, 2005).

## 3 Methods

This section covers the methods used in our analysis. We go over the methods used in our focus group interviews that set up the basis for our survey. Then we cover the areas of analysis we used in examining our results.

### 3.1 Focus group interviews

Focus group interviews are a commonly used qualitative research method to gain knowledge about feelings, thoughts, and impressions on the research issue from the focus group members. Participants for focus group interviews are selected because of their knowledge of the study area, to ensure that they will be able to generate discussion and ideas around the topic (Rabiee, 2004). Focus group interviews are designed to obtain opinions and ideas, so the method is often used as the first step in research. Focus groups can generate a lot of information in a relatively short time span, and this information can be brought into play in subsequent studies to refine and further explain the findings gained from interviews (Vaughn, Schumm, & Sinagub, 1996) (Rabiee, 2004).

The atmosphere for focus group interviews should be positive and comfortable so that sharing of own thoughts would feel safe and encouraging. One of the main benefits for focus group interviews is the interactive environment it provides. The interaction between participants and the interview facilitator will ideally lead participants to reflect and reconsider their ideas as the discussion progresses to generate more insights around the topic (Krueger, 2014).

### 3.2 Conjoint analysis

Conjoint analysis is a statistical method for estimating the preference structure of the respondents to different alternatives in terms of the levels of different attributes. The process of conjoint analysis can be split into five distinct phases: choice of relevant product attributes and the attribute levels, choice of the data gathering method, choice of utility function, choice of questionnaire parameters and analysis of the utility functions (Bask, Halme, Kallio, & Kuula, 2013). The starting point for the analysis is that the utility of the product, service or phenomenon consists of the partial utilities originating from its attributes and there exists also other alternatives with different levels in attributes. According to Rao, (2014) conjoint type of measurement is used when determining the joint effect of levels of two or more attributes of alternatives on the total evaluation of a set of alternatives (Rao, 2014).

In conjoint analysis, attributes are the features or characteristics of a product or service that are being evaluated by consumers. For example, in a study of a new smartphone, the attributes might include the size of the screen, the amount of storage, and the price. Levels are the different options or choices available for each attribute. For example, if screen size is an attribute, the levels might be small, medium, and large.

Traditional use case for conjoint analysis would be to expose respondents to several product profiles with varying attribute levels and ask the respondents to arrange the profiles according to their desirability e.g., by ranking the profiles with respect to the degree of preference. However, conjoint analysis can be used in multiple different fields as well. Green & Venkat (1990) have identified conjoint analysis being used in litigation, pharmaceuticals, corporate strategy, and airline industry (Green & Venkat, 1990). Munnich et. al (2022) successfully used application of conjoint analysis to examine the hybrid work preferences of government employees in Netherlands. (Munnich, Weijschede–van der Straaten, & J, 2022). The study focused on the desired hybrid working mode and the different arrangements related to it.

The history of conjoint analysis originates from the 1920s, but it has been adopted to broader use during the last 50 years (Rao, 2014). The current literature acknowledges four types of conjoint analysis; the traditional conjoint analysis (CA) which uses stated preference ratings, choice-based conjoint analysis (CBCA) which uses stated choices, adaptive conjoint analysis (ACA) which was developed to handle analysis with large number of attributes and the self-explicated conjoint analysis which is a bottom-up method. (Rao, 2014).

We have selected to use the choice-based conjoint analysis (CBC) in our research, since the study contains only a small number of attributes and levels, so adaptive methods are unlikely to be needed. Choice-based conjoint analysis is the most used method of conjoint analysis, and its questionnaires are also less burdensome for the respondents than the other alternatives (Rao, 2014). A too complex questionnaire could lead respondents to not finish the query.

In choice-based conjoint analysis the respondent makes a choice between the presented product profiles, which include a set of attribute levels. The respondent repeats the task of choosing the best alternative amongst the presented profiles. (DeSarbo, Ramaswamy, & Cohen, 1995). The preferences expressed by respondents are decomposed into separate utility values that correspond to each attribute. These values, known as part-worth functions, are specific to each attribute and reflect the relative importance or utility that a consumer assigns to the various levels of that attribute. (Rao, 2014).

The perceived overall utility or value of a product or service can be understood in terms of the part worth's of its various attributes (attribute levels). One simple and almost solely used model for the total utility is the additive utility model, which posits that the total utility of a product profile,  $U$ , is the sum of the part-worth's of the attribute levels present in the profile. This model assumes that the total utility of a product or service is the result of the additive contributions of its individual attributes. (Rao, 2014)

$$U = \sum_i u_i(a_i) = u_1(a_1) + u_2(a_2) + \dots + u_n(a_n)$$

where  $n$  is the number of attributes and  $a_i, i=1, \dots, n$  is the  $i$ th attribute. (Halme, 2021)

The other main model to measure utilities in choice-based conjoint analysis is called multinomial logit model. The multinomial logit model assumes that the probability that a person will choose a particular profile is determined by the relative utilities of that profile compared to other presented options. In other words, the probability of choosing a profile is determined by the ratio of its utility to the utility of other options (Rao, 2014). The probability of profile  $a$  is selected amongst three profiles  $a, b, c$  is given by:

$$P(a) = e^{Ua} / (e^{Ua} + e^{Ub} + e^{Uc})$$

where  $Ua, Ub$  and  $Uc$  are the utilities of the respective alternatives (Halme, 2021).

Stated choice experiments can be designed to simulate choices made in a similar way to how people make choices in everyday life by presenting sets of hypothetical profiles for the respondent where each set consists of a few profiles with a finite number of attributes (Rao, 2014). For one to start executing choice-based conjoint analysis, the attributes and their levels need to be determined. The process of how appropriate attributes and levels are determined is described with more detail in Section 4.

### 3.3 Latent class analysis

Latent class (LC) analysis, or finite mixture analysis, is a tool to find unobserved heterogeneity in population based on their response patterns by identifying latent classes. Latent class analysis can be used to perform segmentation and to estimate the average part worth utilities of the different segments by using only the observed conjoint choice data. It is calculating for different numbers of clusters for each respondent the probability to belong to each cluster. Segments are formed in such a way that inside one segment there

are respondents with similar preferences, but those preferences differ from the preferences of different segments. Latent class analysis is thus an effective way to execute *post hoc* segmentation on data collected with choice-based conjoint analysis (DeSarbo, Ramaswamy, & Cohen, 1995).

To find the optimal solution in the situation where number of clusters is unknown before analysis, estimation is done by altering the number of clusters and using consistent information criteria, especially the Akaike information criterion (CAIC). The clustering for a certain number of clusters needs to be repeated several times to avoid local optima. The solution is chosen so that it minimizes the value of CAIC, and it is managerially interpretable, meaning that the segment utility patterns differ from each other and are explainable (DeSarbo, Ramaswamy, & Cohen, 1995):

$$CAIC = -2\text{Log Likelihood} + tr+r-1 \cdot \ln N+1$$

where t is the number of independent parameters estimated per group, r is the number of clusters and N is the total number of choice tasks in the survey.

The latent class clustering executed with Discover, a web-based tool of Sawtooth Software, also produces three additional information criterion AIC (Akaike Information Criterion), BIC (Bayesian Information Criterion), ABIC (Akaike Bayesian Information Criterion), but there is no consensus which of these measures produces consistently more reliable results (Sawtooth Software, 2021).

### 3.4 Hierarchical Bayes method

Hierarchical Bayes is a method used to estimate the individual-level utilities for each respondent. In the process of estimating the individual level utilities, the algorithm first estimates the average utility of the whole sample and then uses the individual level response data to examine how much does the individual's responses differ from the sample averages (Orme, 2016).

The Hierarchical Bayes method produces root-likelihood (RLH) measure which prevails information about the consistency of the answers from the respondent. The value of RLH can differ between 0 and 1, where high value indicates consistent answers and low value randomness in the respondent's choices over the different choice tasks. Root likelihood can be used to identify and exclude "bad" respondents from the data set to be analyzed. The exact minimum level of RLH depends on the number of attributes used in the survey (Orme, 2019).



## 4 Study design

This study is divided into two phases, with the first phase involving the use of focus group interviews to identify the attributes that knowledge workers consider important when seeking employment in the current hybrid working environment. The second phase of the study consists of a choice-based conjoint survey, which is analyzed using two different methods: Latent class analysis for clustering, and an assessment of willingness-to-pay - we view how much respondents are willing to pay for a possibility for remote work.

Subsection 4.1 describes the procedures employed in the administration of the focus group interviews and to present the results of these interviews. Subsection 4.2 describes how the attributes and levels were developed for the survey. In Subsection 4.3 we present the survey design, demographic variables used in the survey and discuss how the survey was distributed.

### 4.1 Focus group interviews

From the previous literature it was possible to identify five main dimensions for work related values, intrinsic, extrinsic, growth, social and convenience related values (Pataki-Bitto & Kapusy, 2021). The goal of the focus groups was to identify, using these dimensions, the attributes which are valued the most in the job seeking process. The focus group interviews were used also as a basis for designing the attributes for the choice-based conjoint analysis used as part of the survey. In the last step of the focus group interviews, the participants were asked to answer two open-ended questions related to the relationship between salary and remote work.

Four focus group interviews with a total of 13 participants were arranged. According to Krueger, three to four focus group interviews is sufficient when the issue that is researched is not too complicated (Krueger, 2014). Within a single focus group, the participants were familiar with each other. This approach was selected to create a natural and comfortable

situation, where sharing one's ideas and values would feel easy. The participants were either university students who did work simultaneously with their studies or university graduates who had already been in the working life for varying time. All the participants had some experience in working remotely during and after the global Covid-19 pandemic.

The focus groups (speaking Finnish) started with introductory discussions, which were followed by three different phases to the actual interview. During the introductory discussions, the framework of work value dimensions by Pataki-Bitto & Kapusy (2021) was presented by the facilitator (Pataki-Bitto & Kapusy, 2021). This was done to nurture the thinking of participants and to further make them connected to the interview. The facilitator and the participants discussed for a short moment about the different dimensions of work values, and the attributes within different dimensions.

In the first phase of the interviews an Excel document was shared with the participants, and they were asked to list all possible attributes that they thought were important when seeking a new job. The facilitator encouraged the participants to think creatively and to be as precise as possible with the attributes. After participants were ready with phase 1, the facilitator gathered all attributes from the participants into one long list of attributes. The facilitator and the participants had an open discussion about the longer list of attributes, and new attributes that rose from the conversation were added to the list.

In phase 2 the complete list of all identified attributes was shared to the participants. The participants were asked to rank the attributes based on their importance with scale of 0-3, where 0 = not important, 1= slightly important, 2= important, 3 = very important. The ranking of the attributes was executed to gain knowledge of which of these attributes had more significance in the process of seeking a new job.

In phase 3, an imaginary situation was presented to the participants where they had received an offer for a new job in a company where the protocol is to work from the office without possibility to remote work. After this, the participants were asked two questions

where they needed to reveal how much they would be willing to cut their salary to gain more possibilities for remote work.

Similar steps were followed in all four focus group interviews. The attribute listings from different focus groups had lot of overlap but there existed also attributes that were listed and rated by only one group. To gain better knowledge and to allow better comparison, the facilitator contacted all participants afterwards and asked them to rank the attributes that were missed in their focus groups.

#### 4.1.1 Results from the focus group interviews

The key result from the focus groups is the list of attributes that the focus group participants value whilst seeking a new job. The list and respective ranking scores as well as standard deviations can be found from Table 1. The attribute names were translated from Finnish to English by the authors. We find that the average ranking scores vary between 1,08 to 2.7, which means that the respondents found even the least valued attribute to be at least slightly important on an average. An importance score of 0 was given only 7 times in total by all the respondents. These findings show that when seeking a new job, all kinds of aspects have some influence on the selection process, and practically nothing is considered totally irrelevant.

The focus group attendees identified attributes *Salary and bonuses*, *Benefits* and *Retirement arrangements* from the extrinsic work value dimension. *Salary and bonuses* were seen as the most important attribute whilst seeking a new job from with ranking score of 2.75. *Benefits* and *Retirement arrangements* were not considered to be that important, both having ranking score under 2. *Retirement arrangements* were seen the least important of all attributes with a ranking score of 1.08. This is likely due to the fact that majority of the focus group respondents were recently graduated individuals or students to whom retirement is so far in the future that this is not seen important.

From the intrinsic work value dimension, the focus group participants identified a total of 11 attributes, the most among the dimensions. The most important attribute from this dimension is *Interesting tasks* with ranking score of 2.58. Other highly influential attributes from this dimension were *Opportunities to learn and grow* (2.50), *Feeling of being valued* (2.50), *Freedom to influence your own work* (2.33), *Meaningfulness of the work* (2.25), *Responsibility* (2.25), *Variety of tasks* (2.25). The high number of attributes discovered from the intrinsic dimension, and the relatively high rating scores, suggest that knowledge workers place a high value on positions that offer interesting and meaningful work, as well as opportunities for personal growth and the ability to shape their own tasks.

From the attributes found from social work value dimension, *Good supervisor* was seen as the most important with ranking score of 2.58. Other relevant attributes from this dimension were *Culture of the workplace* (2.42), *Colleagues* (2.17), and *Induction to work* (2.17), *Networking possibilities* (2.00). *Company events* were also identified as attributes from social work value dimension, but those were not as important as the above-mentioned. During the focus groups, the participants emphasized the importance of having a good supervisor in the current hybrid work environment. A good supervisor was described as someone who is approachable and provides both support and trust for individuals. The company culture and relationships with colleagues were also identified as important factors, particularly when starting a new job in a remote fashion.

*Career development opportunities* (2.50) was seen as the most important attribute from the growth and power dimension. Other attributes from this dimension were *International opportunities* (2.08), *Status of the position* (1.92) and *Status of the company* (1.50). This suggests that knowledge workers see possibilities to gain promotions and have international opportunities as an important factor when they seek a new job.

From the most recently added dimension of work value theories, the convenience dimension, the attendees found in total 7 attributes that have an impact to the job seeking process. *Remote work possibility* (2.33), *Number of holidays* (2.33) and *Flexible hours within the day* (2.00) were the most important attributes from this dimension. Other less

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important attributes from this dimension are *Office facilities* (1.83), *Healthcare* (1.83), *Tools for work* (1.75) and *Location of the company* (1.75). The high number of attributes identified in this dimension aligns with recent research, discussed in Section 2, from Pataki-Bitto & Kapusy (2021) that highlights the increasing importance of convenience-related values in the job search process. (Pataki-Bitto & Kapusy, 2021) It is noteworthy that the knowledge workers of our survey considered the availability of remote work as the most important attribute in the convenience dimension, while the location of the company was ranked as the least important. These findings suggest that knowledge workers place a high value on flexibility and the ability to work from anywhere.

As mentioned above, the most valued attribute whilst seeking a job is *Salary and bonuses*, which is part of the extrinsic work values in the Pataki-Bitto & Kapusy (2021) framework. We find that, in the set of most valued attributes, (average ranking score of over 2.33) there exists also attributes from the rest of four work value dimensions presented by Pataki-Bitto & Kapusy (2021); *Career development* under growth and power dimension, *Good supervisor* and *Culture of the company* under social dimension, *Interesting tasks* and *Opportunities to learn and grow*, *Feeling of being valued* and *Freedom to influence your own job* under intrinsic dimension and finally *Remote work possibility* and *Number of holidays* under the convenience dimension.

These results suggest that job seekers are looking for more than just a high salary. They also want opportunities for career development, a positive work environment, interesting and meaningful work, and the ability to have a flexible work arrangement that fits with their desired life. The findings align with the recent literature that suggests that the ease of integrating work into one's life is becoming increasingly important in the hybrid working era. In other words, people want work to fit seamlessly into their overall lives, rather than being a separate and distinct entity.

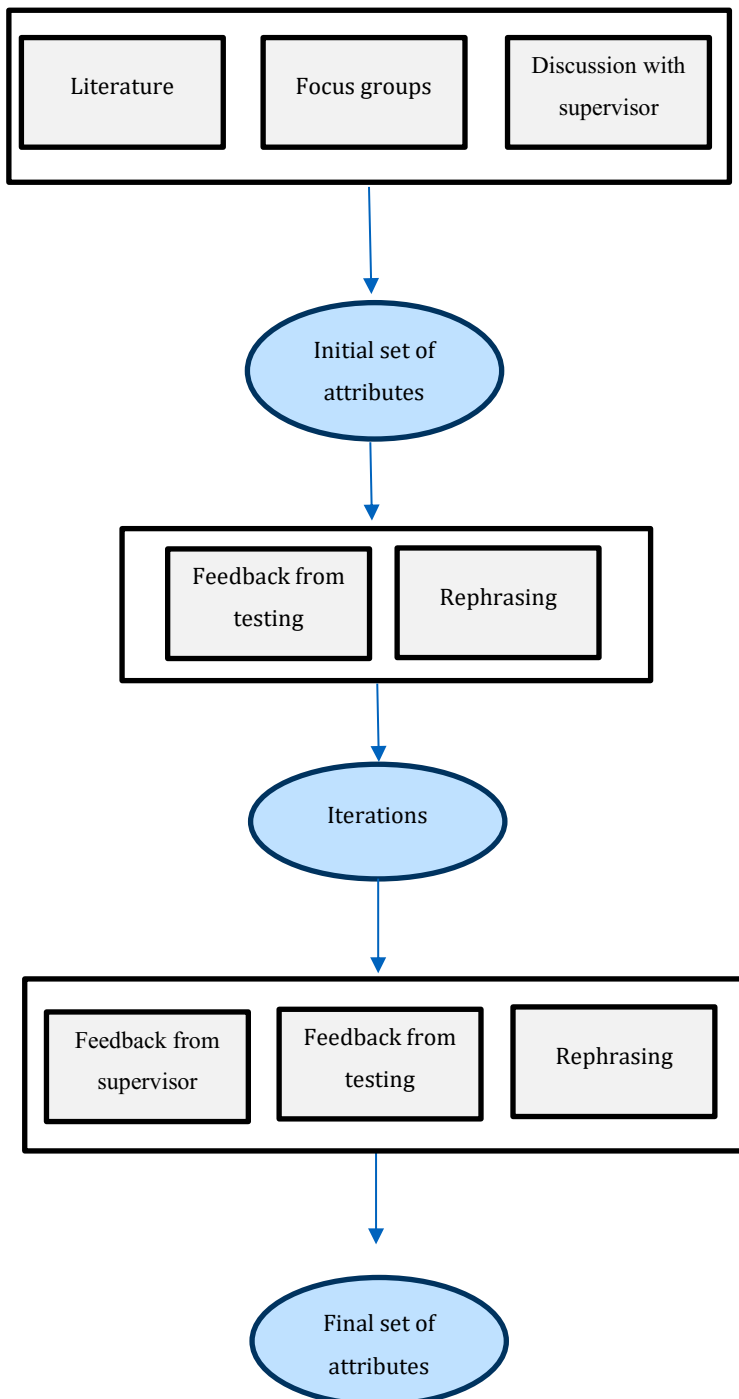
*Table 1. Attributes identified by the focus groups, their average scores, and standard deviations.*

<b>Attribute</b>	<b>Average ranking score</b>	<b>Standard deviation</b>
Salary and bonuses	2.75	0.458
Good supervisor	2.58	0.490
Interesting tasks	2.58	0.490
Career development opportunities	2.50	0.490
Opportunities to learn and grow	2.50	0.490
Culture of the company	2.42	0.490
Feeling of being valued	2.42	0.490
Freedom to influence your own work	2.33	0.663
Remote-work possibility	2.33	0.640
Number of holidays	2.33	0.806
Meaningfulness of the work	2.25	0.490
Responsibility	2.25	0.663
Variety of tasks	2.25	0.640
Colleagues	2.17	0.781
Induction to work	2.17	0.458
Challenging work	2.08	0.600
International opportunities	2.08	0.831
Flexible hours within the day	2.00	0.748
Networking possibilities	2.00	0.748
Status of the position	1.92	0.700
Office facilities	1.83	0.632
Healthcare	1.83	0.831
Values of the company	1.83	0.700
Possibility to influence	1.83	0.600
Benefits (lunch, cultural benefits, company car etc.)	1.79	0.602
Tools for work	1.75	0.700
Location of the company	1.75	0.781
Practical application of learned things	1.58	0.600
Status of the company	1.50	0.671
Board of the company	1.33	0.640
Company events	1.25	0.671
Retirement arrangements	1.08	0.632

## 4.2 Developing the attributes and their levels

The purpose of this section is to bring more insights on the process of how we selected the attributes and their levels used in the survey. The attributes are formed based on the findings from literature review and focus groups, and further developed with iterative testing.

Figure 3 Developing attributes and their levels



In Figure 3 we can see the conceptual model for determining the attributes and their levels. The process of developing the attributes started by going through relevant literature regarding work values (see Section 2) and continued with focus group interviews (see Section 3) and discussions with our supervising professor who is an expert in the field of conjoint analysis.

Based on the findings and discussions we opted to include only three attributes to our conjoint analysis. As mentioned in the literature: “research has found that the increase in the complexity of the choice set might jeopardize the consistency of the choices an individual makes, which in turn can prevent the choices from being explained by the underlying preferences” (Hensher, Rose, & Greene, 2005), in essence suggesting that less is more.

We continued to use the framework from Pataki-Bitto & Kapusy (2021), and evaluated the five work dimensions (intrinsic, extrinsic, convenience, social and growth) to choose from which of these dimensions we should further develop attributes to our survey (Pataki-Bitto & Kapusy, 2021). When seeking a new job, one usually detects own intrinsic motivations towards the position by assessing the level of interest and excitement for the position, as well as their alignment with the company values and mission of the organization. During the job application process, salary and remote work opportunities are typically discussed, but individual social needs and potential for growth within a position can vary greatly from person to person and may be influenced by the actions of the job seeker. Therefore, we decided to keep the attributes reflecting social and growth dimensions as constant in the survey.

Ultimately, we focused on the extrinsic, intrinsic, and convenience dimensions. We examined these dimensions in more detail to determine which attributes and levels to include in the survey. The results of this analysis will be discussed in further detail in the following sections.

#### *Extrinsic values*

As discussed in the literature review, extrinsic values or external motivation refers to such motivation where the individual entails in an action for the purpose of some external reward, often compensation or pay of some sort (Porter & Lawler, 1968). Security and stability, within the job context, are also attributes of external values, although they are harder to quantify than compensation.

Based on the focus-group interviews, literature review, and our own judgement, we decided to measure extrinsic values using the salary attribute, which was the highest rated attribute from the focus groups. To make sure the levels for the salary attribute were realistic, we relied on our focus group interviews. We asked the interviewees questions regarding how much they would be willing to give up, if at all, of their salary to gain the



possibility for working 1 or 3 days per week remotely. The answers ranged between 5-10% of their current or requested salary, thus we set the levels as:

*Table 2. Initial attribute for extrinsic values and its levels.*

<b>Attribute</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Salary	100%	95%	90%

### *Intrinsic values*

Intrinsic values or internal motivation refers to such motivation where the individual entails in an action for the purpose of joy or satisfaction rather than for some external reward. Intrinsic values are attributes such as work enjoyment, autonomy, meaningfulness, interesting work, challenges, etc (Pataki-Bitto & Kapusy, 2021). To measure non-quantified values, such as intrinsic values, it is important to distinguish them so that they are considered almost categorically desirable. For quantifiable values such as compensation, setting the correct attributes and their levels are rather straightforward, as a higher salary is (nearly) always considered better than a lower salary. But for some non-quantifiable values, say autonomy, the desirability of the attribute does not increase linearly with the increase in said autonomy.

Based on our focus group interviews and literature review, we chose the intrinsic dimension to be represented in the survey by meaningful and engaging work. Other attributes within the intrinsic values framework, such as challenging work are not universally considered preferable, as some individuals might prefer monotonous work over challenging work. Similarly, some individuals prefer structure over autonomy. However, nearly all our focus group interviewees considered meaningful and engaging work as desirable. We chose to have 3 levels for this attribute as well:

*Table 3. Initial attribute for intrinsic dimension and its levels.*

<b>Attribute</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Meaningful and engaging work	Highly engaging and meaningful	Somewhat engaging and meaningful	Vaguely engaging and meaningful

*Convenience values*

Convenience values regarding work refer to such values as convenient travel time to work, remote-work, a healthy work-life balance and pleasant work environment to name a few (Pataki-Bitto & Kapusy, 2021). These values can be considered as values that support the employees' desired lifestyle and wellbeing. From our focus group interviews three attributes with high importance score were found: remote-work possibility, number of holidays and flexible hours within the day.

As our focus on this research was to examine the prevalence of remote work, the authors included the remote work possibility as the attribute from the convenience value dimension. The study from Munnich et. al (2022) found that from the possible different hybrid working arrangements the distribution of days between remote working and working from office had the greatest importance on the hybrid working approach, which further justified the selection of using the remote work possibility as the attribute to be used (Munnich, Weijschede–van der Straaten, & J, 2022). Moreover, after some discussion within the focus groups it seemed that the flexibility in working hours -variable is embedded within the remote work variable. Via working remotely, more flexibility is automatically given or taken to/by the employees when partaking in remote work. For the variable Remote-work, we choose to include four levels:

*Table 4. Initial attribute for convenience value and its levels*

<b>Attribute</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>
Remote work	No possibility for remote work	Possibility to work 1 day per week remotely	Possibility to work 3 days per week remotely	Autonomy to decide where to work from

After we had defined the initial set of attributes, a preliminary version of the survey was formed for testing purposes. This was done to ensure that the survey was easy to respond and provided us with the data we needed. The test version of the survey was shared to our supervisor and for selected test respondents. The test respondents commented that the levels of attribute *Salary* were somewhat hard to understand as there were only percentages shown as levels without more information. Based on this feedback we decided to modify the levels such that informative text was added to the level.

During the first test round we also received feedback about the attribute *Meaningful and engaging work* and its levels. Test respondents commented that word *engaging* was hard to understand and provided suggestion to change it to *interesting* instead. The test respondents were also confused with the differences of Level 2 “**Somewhat** engaging and meaningful” and Level 3 “**Vaguely** engaging and meaningful”, it was challenging for them to spot the difference between *somewhat* and *vaguely*. Based on the feedback we decided to modify the wording of the levels as well, so that the levels were *High, Average* and *Low*. Description of the iterative development process of attributes and their levels can be found from Table 5.

Table 5. Attribute and level development process.

	Initial set	Iteration 1	Iteration 2
<b>Attribute name</b>	<b>Salary</b>	<b>Salary</b>	<b>Salary</b>
Levels	100%	100 % of requested salary	100 % of requested salary
	95%	95% of requested salary	95% of requested salary
	90%	90 % of requested salary	90 % of requested salary
<b>Attribute name</b>	<b>Meaningful and engaging work</b>	<b>Meaningful and interesting work</b>	<b>Interest and meaningfulness</b>
Levels	Highly interesting and meaningful work	High	High
	Somewhat interesting and meaningful work	Average	Average
	Vaguely interesting and meaningful work	Low	
<b>Attribute name</b>	<b>Remote work</b>	<b>Remote work</b>	<b>Remote vs. office work</b>
Levels	No possibility for remote work	No possibility for remote work	Work from office, no possibility for remote work
	Possibility to work 1 day per week remotely	Possibility to work 1 day per week remotely	Remote work possible up to 1 day per week
	Possibility to work 3 days per week remotely	Possibility to work 3 days per week remotely	Remote work possible up to 3 days per week
	Autonomy to decide where to work from	Autonomy to decide where to work from	Autonomy to freely choose where to work from

From the second iteration round we received more feedback on the levels of attribute *Interesting and meaningful work*. Respondents felt that Level 3 “Low”, was too bad to even consider and a profile with “Low” on attribute *Meaningful and interesting work* was straightforwardly discarded. The reasoning behind this was that one will not even apply to a position which has only low level of meaningfulness and interestingness. After discussions with our supervising professor, we decided to leave out the Level 3 and use only two levels with the attribute *Meaningful and interesting work*. This decision made the survey also less burdensome for the respondent, since as a result the amount of choice

tasks in the survey was reduced from 8 to 7. During the second iteration process also some other rephrasing occurred, but no major changes were made to other attributes.

#### 4.2.1 Final set of attributes and levels

In Table 6 you can find the final set of attributes and their respective levels used in the choice-based conjoint survey. The partial bolding of the levels was executed for one to easily see differences in choice tasks.

*Table 6. Final set of attributes and levels*

<b>Attribute</b>	<b>Description</b>	<b>Levels</b>
<b>Salary</b>	Salary was chosen to characterize the extrinsic work value dimension. Attribute reveals the level of pay which one receives from the position.	<b>100%</b> of requested salary <b>95%</b> of requested salary <b>90%</b> of requested salary
<b>Interest and meaningfulness</b>	The attribute characterizes the intrinsic work value dimension. Attribute describes the level of inner motivation towards the position that one is seeking.	High Average
<b>Remote vs. office work</b>	The attribute characterizes the convenience work value dimension. Attribute reveals the amount of flexibility that one has in her work.	Work from office, <b>no possibility</b> for remote work Remote work possible up to <b>1 day</b> per week Remote work possible up to <b>3 days</b> per week Autonomy to <b>freely choose</b> where to work from

### 4.3 Survey

This section discusses the general process that respondent follows whilst answering to the survey and presents the survey design. The survey was conducted with Sawtooth Software's Discover, a web-based tool. Visual representation of the survey can be found in Appendix A.

The questionnaire started with informed consent of the study. As the focus of this research was on knowledge workers who have the possibility for remote work, the participants were next exposed to a question where they were asked if remote working is possible for them. If this was not possible for the participant, they were directed straight to the ending screen of the survey. Subsequent to this initial screening, participants completed seven demographic questions to gather information about their sociodemographic characteristics. These measures are and the reasoning behind selecting them are explained in sub section 4.3.1.

Following this, participants were presented with two open-ended questions in which they were asked to consider a scenario in which they had received a job offer from a company that required employees to work onsite without the option for remote work. They were then asked to indicate what percentage of their salary they would be willing to accept in order to have the opportunity to work remotely some days of the week. The final portion of the survey included a rating question in which participants ranked various modes of work, as well as seven choice-based selection tasks designed to assess preferences related to remote work, salary, and intrinsic motivations.

The amount of choice tasks is dependent on the number of attributes and their levels used in the survey. As discussed earlier in section 4.2, we chose to drop one level from attribute *Meaningful and interesting work*, which reduced the number of choice tasks by one. In addition, the wanted level of accuracy and number of alternatives per choice task can influence the amount of choice tasks.

The more alternatives are shown per choice task, the more information can be obtained in each task, but it increases the choice difficulty. The manual from Sawtooth Software recommends having three to six concepts per task, and preferably less if it is expected that large proportion of the respondents are answering the survey on mobile devices with relatively small screen. As we expected to have a lot of responses from mobile devices, and we wanted to keep the survey as simple as possible we decided to have three alternatives per one-choice task (Sawtooth, 2022).

The choice-task presented to individuals are “randomized designs”, meaning that for all respondents a carefully constructed unique version of the questionnaire is presented. This is done to minimize overlap, ensure level balance, and maintain orthogonality (independence) among the attribute levels. This allows researchers to estimate the effect of each attribute level on choice independently of the other levels. The use of many unique versions (blocks) of the questionnaire helps to reduce the impact of psychological context and order effects and increases the robustness of the estimates (The CBC System for Choice-based conjoint analysis, 2017).

#### 4.3.1 Demographics

We asked respondents to provide gender, age, their highest degree of education, whether they have children under the age of 15 years in the same household and whether they have a designated space for a remote office in their home. These demographics were gathered to help identify different clusters among the respondents, and how work values preferences are related with these demographics. A complete list of demographic questions and the respective response options can be found in Appendix A.

*Gender* was included as one of the demographic factors to identify whether gender and gender roles play a factor in influencing work values. Previous research presents how gender specific expectations in caretaking might disrupt and make working from home

more vulnerable for women more than men (Yavorsky, Qian, & Sargent, 2021). Given the notion that working from home is more disruptive for women than men, this could skew gender distribution of working from home.

The role of *age* is of high. One must be careful when interpreting the age factor as differences may relate to *age* or *generation*. For example, Cennamo & Gardner (2008) and Wong et al. (2008) found that although Gen Z values status gain and achievement more than their counterparts, the authors acknowledged that this was likely due to career stage (i.e., *age*), rather than due to generational difference (Twenge, Campbell, Hoffman, & Lance, 2010).

*Children under the age of 15* at home can be considered as a disrupting factor when working from home and have a negative effect on the adoption of remote work. Adversely, it can be a factor that supports an individuals' decision to choose to work from home. Previous research suggests, however, that employees with children at home were less likely to work from home compared to those with no children at home (Zhang, Moeckel, Moreno, Shuai, & Gao, 2020).

*Designated space for a home office* was a question in the survey. Home office that is not properly equipped with a suitable desk, chair and other working conditions can cause a plethora of different ergonomic issues (Gerding, et al., 2021). Ergonomic issues affect productivity and increased tiredness, which can cause individuals with no proper home office facilities to opt to work at the office.

*Income level* has been reported to be a strong determinant of remote work success. A recent paper published by the Rockefeller Institute of Government suggests that when moving higher in the income bracket the likelihood of remote working increases as well (Farmer, 2022). Employees that earn more than \$100,000 per year work more remotely than employees that earn \$50,000-99,000 per year, and employees that earn \$50,000-



99,000 per year work more remotely than employees that earn between \$25,000-49,000 per year.

*Students* have been entering the working life during the pandemic and remote work adaptation. A recent study published by Velocity Global suggests that 7 out of 10 students would consider employment that is permanently remote (Velocity Global, 2022). Moreover, the report suggests that 80% of students would be willing to give up a part of their salary if the job allowed remote work.

#### 4.3.2 Distributing the survey

It is important to have a data sample large enough to ensure credibility for the results. No preceding similar surveys were available as this was pioneering work and thus the survey needed to have a rather large number of respondents to give trustworthy results. Our initial goal was to receive at least 250 responses, preferably more, with different demographic groups sufficiently represented. Much to our surprise, we received 846 responses.

The survey was released on a variety of channels on the 6th of October 2022, and it was kept open until the 14th of October. Firstly, the survey was distributed at both authors' workplaces, via e-mail and chat, in the country of Finland. The workplaces are consulting and software -related, big international companies with offices in Finland and around the world. The survey was distributed at the workplaces, as they mostly employ highly educated, knowledge workers. Both workplaces enable the employees to work remotely.

Secondly, the survey was distributed on WhatsApp to friends from school and relatives, that are also of higher educational backgrounds and work in roles that enable remote work. LinkedIn, a website aimed for professional networking and job seeking, seemed like a suitable platform to distribute the survey, as it could gain a lot of traction and excitement

from people all over the world, and this way reach a wide audience of people who would be willing to participate in the survey.

The authors focused on using motivational language and tried to pinpoint the relevancy of the study in the preface attached to the survey link. This was done to arouse the interest of the individuals who were exposed to the invitation to answer the survey to obtain as many respondents as possible. Detailed examples of the emails and social media postings can be found in Appendix B.

Finally, the survey was introduced and distributed to the 1st year business students from Aalto University (also the authors' university), during a lecture for a mass class "Taulukkolaskenta ja analytiikka". This was achieved with the help of professor Panu Erästö. Distributing the survey for the first-year students with little prior experience of working life thus far would give us data from the younger people who will be entering the workforce in the coming years.

It is difficult to pinpoint how many responses each of the different distribution platforms yielded, but we guess that most of the responses came from the workplaces and LinkedIn. We received lots of feedback, especially from colleagues at our workplaces, mostly positive and some criticism, and much less from the other channels, indicating that most of the responses are likely to have come from the workplaces.

## 5 Results

This section discusses the results from the study. We start by explaining the process of how bad respondents were identified. This is followed by the cluster analysis where we go through the process of selecting the appropriate clustering solution, analysis of the part-worth utilities across the clusters and the demographic characteristics of the clusters. After this we present employee profiles which use all the available information of the clusters. In the last subsection, the results from willingness-to-pay for remote work is analyzed comparing the results of direct and indirect questions.

### 5.1 Identifying bad respondents

We approached the identification of bad respondents by using the Hierarchical Bayes estimation that produces the root-likelihood (RLH) scores for each respondent. The Hierarchical Bayes method produces root-likelihood (RLH) measure which prevails information about the consistency of the answers from the respondent. The value of RLH can differ between 0 and 1, where high value indicates consistent answers (high fit with the additive model), and low value indicates that the respondent's choices in the different choice tasks probably have been done in a careless, random manner. Root likelihood can be used to identify and exclude "bad" respondents from the data set to be analyzed. The exact minimum level of RLH depends on the number of attributes used in the survey (Orme, 2019).

We used an RLH score of 0,55 to weed out bad respondents. Out of the total 846 respondents, 444 respondents fit into the RLH criteria of 0,55. Although such a high RLH criteria excludes nearly half of our respondents, there exists no universal rule for setting the threshold but here the sample was relatively large and the requirements in the WTP-calculation set the threshold relatively high.

## 5.2 Latent class analysis

Latent class analysis can be used to identify segments from the survey response data. This is a method of clustering specifically developed to be used with CBC. Latent class clustering was aimed at responding to answer one of our research questions: *“Is it possible to identify clusters among respondents with different preference structures and if so, what are those clusters like?”*. We chose to run the analysis with Sawtooth Software LC module for 4 to 8 groups. A summary of the best among replications can be found in Table 7 below. Several replications were run to avoid local optima (see Subsection 3.2).

*Table 7. Summary of best replications with different number of clusters*

Groups	AIC	CAIC	BIC	ABIC
4	3667,28	3857,41	3830,41	3744,62
5	3568,37	3807,79	3773,79	3665,75
6	3506,63	3795,34	3754,34	3624,06
7	3452,18	3790,18	3742,18	3589,67
8	3432,98	3820,28	3765,28	3590,52

Note. Groups = number of groups identified from the data. AIC = Akaike Information Criterion. CAIC = Consistent Akaike Information Criterion. BIC = Bayesian Information Criterion. ABIC = Akaike Bayesian Information Criterion

To find an optimal number of segments, one should start by inspecting the measures of fit seen on the Table 7 above.

The most important of these is the consistent Akaike information criterion (CAIC). The selection process starts by looking at which of the solutions provides the lowest (CAIC) value. From the above table we find that solution with 7 groups does have the lowest value on CAIC. A technical paper from Sawtooth Software discusses that rather than checking only the lowest CAIC value, one should see where the value of CAIC has the biggest drop from one of the solutions to another (Sawtooth Software, 2021).

From the table we see that the value of CAIC has dropped most from 4 group solution to 5 group solution. After this the value of CAIC drops only a little to solutions 6 and 7, before

rising again to 8 group solution. AIC, BIC and ABIC can be used also as help for selecting the best clustering solution but there is no consensus which of these measures is consistently reliable. For all these, lower value indicates better fit.

In addition to looking only at the indicators, one should also pay attention to the managerial interpretability of the selected solution. In general, if the goal is to create as accurate segment shares as possible one should rely on the accuracy of the indicators, but if the goal of the clustering is to produce relevant information to back up decision making or to gain knowledge about a phenomenon, one should focus more with the interpretability of the solution (Sawtooth Software, 2021).

We chose to select the five-group solution since the drop in CAIC value was the most significant, and the absolute CAIC value wasn't much higher than with the 7-group solution. Additionally, the five-group solution provided managerially interpretable results.

Table 8. Part-worth utilities of different clusters and the segment sizes.

Attribute	Level	Meaningfulness seeker	Advantage optimizer	Valuer of flexible and meaningful work	Remote work enthusiast	Salary-oriented
Salary	100%	32,53	55,79	26,23	11,56	88,03
	95%	6,43	8,85	3,84	7,81	2,81
	90%	-38,96	-64,64	-30,07	-19,37	-90,84
Interest and meaningfulness	High	75,57	1,01	43,43	14,34	22,08
	Average	-75,57	-1,01	-43,43	-14,34	-22,08
Remote work	Autonomy to freely choose where to work from	34,67	82,43	64,93	112,92	25,25
	Work from office, no possibilities for remote work	-42,69	-95,12	-91,91	-127,45	-51,72
	Remote work possible up to 1 day per week	-9,65	-35,44	-10,67	-48,92	11,58
	Remote work possible up to 3 days per week	17,67	48,13	37,65	63,44	14,89

Cluster analysis continues with an examination of the part-worth's of the various clusters. As displayed in Table 8, there is a noticeable degree of heterogeneity in the utilities that the different clusters receive from the various attributes at different levels. This analysis allows us to distinguish which attributes bring the most utility to the clusters, as well as how changes in attribute levels affect the overall utility. By analyzing the size of the utility changes between the attribute levels in Table 8, we can further investigate the preferences of these clusters. Utility functions of the segments are additive, the total utility is the sum of the utilities from different attributes on their respective levels. Based on these findings, we have chosen to label clusters as *Meaningfulness seeker*, *Advantage optimizer*, *Valuer of flexible and interesting work*, *Remote-work enthusiast*, *Salary-oriented*.

For the *Meaningfulness seeker* cluster, the change from 100% salary to 95% salary is considered to reduce the total utility (26,10) which is less than the utility gain (33,04) is when moving from working only at the office to being able to work 1 day per week. This indicates that this cluster would value the one day of remote work more than they would suffer from the 5% pay cut. From the table we see also that no change in any other attributes could compensate for the utility loss when changing from High to Average interesting and meaningfulness.

The significance of intrinsic values for this cluster is more easily understood when we compare the total utilities from two extremes. The total utility gained from a job that is *highly interesting and meaningful*, with *90% salary* and *mandatory office attendance* is higher than the total utility from a job that is only *averagely interesting and meaningful*, with *100% salary* and *autonomy to choose where to work from*. This shows that the intrinsic motivation for this cluster is a highly influential factor when deciding where to work from. Even with higher salary and full autonomy the position with only average level of meaningful and interesting work is not preferred.

As with the previous cluster, *Advantage optimizers* gain more utility (59,32) when moving from working only at the office to 1-day per week remotely compared to the utility loss (46,94) from the 5% salary cut from full salary. People belonging to this cluster gain also more utility (143,24) when changing from working from the office to 3-day per week remotely, compared to the utility loss (120,43) when the salary reduces from 100% to 90%.

Advantage optimizers seem to value only measurable benefits and do not keep intrinsic motivations towards the work in high regard. The interval of levels on attribute Interest and meaningfulness is so small for this cluster, that there is only a fraction of a difference in the perceived total utility regardless of if the work is averagely or highly interesting and meaningful.

People belonging to *Valuer of flexible and interesting work* cluster gain more utility (81,24) when changing from working only from office to 1-day per week remotely compared to the utility loss (56,30) from salary cut from 100% salary to 90% salary. Here this cluster differs from the previous two, as for the previous two clusters the utility loss from salary cut of 100% to 90% is higher than the utility gain from the change from working only at the office to possibility to work 1-day remotely. *Valuers of flexible and interesting work* thus keep the possibility of working 1 day per week more valuable than *Meaningfulness seekers* and *Advantage optimizers*.

For this cluster the gain in utility (86,86) on change from averagely to highly interesting and meaningful work is larger than the utility gain (56,30) from 90% salary to 100% salary. This indicates that the people in this cluster will choose highly interesting and meaningful work with 90% salary over averagely interesting and meaningful work with 100% salary.

As with the previous cluster, *Remote work enthusiasts* gain more utility (78,53) when moving from working only at the office to 1-day per week remote work possibility compared to the utility loss from 10% salary reduction (30,93). But what is interesting in this cluster is that remote work enthusiasts gain more utility from all possible improvements in the attribute Remote work compared to the utility loss of 10% reduction in salary. This is unique characteristic for this cluster and indicates that remote work enthusiasts are willing to negotiate their salary to a lower level if they receive more flexibility in return despite how much flexibility they have at the moment. For this cluster the utility loss (-28,68) from High to Average interesting and meaningful work is only little smaller than the loss of utility (-30,93) from 10 % salary reduction.

People belonging to *Salary-oriented* cluster differ from all other clusters when inspecting the part worth's of Salary and Remote work attribute levels. For this cluster the added utility (76,97) from the change of working only at the office to complete freedom is smaller



than the utility loss from 5% salary reduction (85,22). All other clusters gain more utility from the possibility of 1 day per week remote working than the utility loss is from 5% salary reduction.

For cluster *Salary-oriented* the attribute Interest and meaningfulness is affecting the total utility only slightly, the utility loss (85,22) from 5% salary reduction is almost twice higher than the utility gain (44,16) from the change from averagely interesting and meaningful job to highly interesting and meaningful job. What is also fascinating for this cluster, is that the utility gain (69,3) from the change of working only at the office to possibility to work 1 day per week remote is over six times higher (63,30) than the added utility (10,36) from the change of working 1 day per week remotely to full autonomy. This indicates that people belonging to this cluster do not keep the possibility of working remotely more than once a week important when seeking a new job.

Next, we continue to investigate if there are differences in the demographics across the clusters. In Table 9 we see socio-demographic information in the studied five cluster solution.

*Table 9. Cluster sizes and demographics across the five segments.*

Question	Meaningfulness seeker	Advantage optimizer	Valuer of flexible interesting work	of Remote-work enthusiast	Salary-oriented	Total
Cluster size	98	123	100	85	38	444
%	22.1%	27.7%	22,5%	19.1%	8.6%	100 %
Age						
18-29	47	60	46	27	11	191
30-39	30	49	31	35	20	165
40-49	16	8	12	21	5	62
50-59	4	6	11	2	2	25
60+	1	0	0	0	0	1
Gender %						
Female	36	33	46	38	12	165
Male	61	90	53	46	26	276

Other/Prefer not to say	1	0	1	1	0	3
Income level per year %						
0 -20 000 €	7	5	6	7	2	27
20 000 -40 000 €	13	18	9	9	8	57
40 000 - 60 000 €	40	40	39	35	12	166
60 000 – 80 000 €	23	39	28	16	11	117
80 000 -100 000 €	8	16	7	12	1	44
Over 100 000 €	5	3	7	3	4	22
Prefer not to say	2	2	4	3	0	11
Student? %						
Yes	18	12	24	9	6	69
No	80	111	76	76	32	375
Highest degree of education %						
Primary school	2	0	0	0	0	2
High school	6	5	4	6	3	24
Trade school	1	3	0	3	5	12
Bachelor's degree	28	69	27	32	16	172
Master's degree	52	35	65	40	14	206
PhD or higher	9	11	3	4	0	27
Prefer not to say	0	0	0	0	1	1
Space for remote work at home? %						
Yes	59	103	73	60	32	327
No	39	20	27	25	6	117
Children under 15 in household						
Yes	24	47	33	40	15	159
No	74	76	67	45	23	285

Cross-tabulation and chi-square tests were employed to see if the five-cluster membership and the demographic descriptors were probabilistically dependent. Risk level alpha = 0.05 is used in all analyses. When analyzing the gender other classes than male and female were filtered out due to low number of observations. Age groups were also combined to include enough observations for each class. As can be seen from Table 10 we are lacking observations from respondents over 50 years old. In the sequel we use groups *18-29 years old*, *30-39 years old* and *40+ years old*.

The *Meaningfulness seeker* is less likely to have dedicated space for remote work at home ( $p=0.0006$ ) and children under 15 living with them ( $p=0.0081$ ) compared to rest of the sample. There are also relatively more people with master's degree as their highest degree of education in this cluster. *Advantage optimizers* are more likely men ( $p=0.00439$ ) compared to rest of the sample. Advantage optimizer is also less likely for a student ( $p=0.0373$ ) and has more likely dedicated space for remote work in their home ( $p = 0.0028$ ) than rest of sample. Advantage optimizers are more often under 40 years old compared to rest of the sample ( $p.0.0207$ ). There are also relatively more people with bachelor's degree as their highest degree of education in this cluster.

In the *Valuer of flexible and interesting work* there are more females ( $p=0.0346$ ) and students ( $p = 0.0080$ ) compared to the rest of the sample. This cluster holds also relatively more respondents that have Master's degree as their highest education. *Remote-work enthusiasts* are more likely to have children under 15 years old living with them in the same household ( $p=0.0162$ ) and they are more likely to be over 40 years old ( $p=0.0422$ ) than rest of the sample. The people belonging to *Salary-oriented* cluster do have trade school as their highest degree of education more likely than less of the sample ( $p=0.0008$ ).

### 5.3 Cluster profiling

In this section, we will summarize the clustering results and construct employee profiles from the clusters.

#### **Meaningfulness seeker - 22.1% of the respondents**

Individuals who fall within this cluster place a high value on the meaningfulness and interest of their work. They may prioritize finding a job that is personally fulfilling and engaging, or one that has a positive impact on society.

From an employer's perspective, this cluster can be particularly valuable, as these employees are likely to be highly engaged and motivated in their work, which can lead to increased productivity and a positive company culture. Furthermore, employees who find their work personally fulfilling are more likely to have a positive attitude and be motivated to contribute to the success of the workplace.

All this can lead to a better work environment and a lower rate of turnover, improving the long-term stability of the organization. Overall, employees who value meaningful and interesting work can be an asset to any organization. For Meaningfulness seeker cluster the distribution of females and males among respondents and across age groups follows the distribution of the sample, with a slightly higher proportion of respondents aged 18-29. Among this cluster, there are fewer individuals with children under 15 living with them and fewer individuals with dedicated space for remote work, as well as a relatively higher proportion of students and individuals with a Master's degree as their highest level of education.

**Advantage optimizer - 27.7% of the respondents**

Counter wise to meaningfulness seekers, individuals belonging to this cluster do not prioritize the meaningfulness of a job when seeking employment. Individuals in this cluster are more interested in the measurable benefits of a workplace. They place slightly more importance on the availability of remote work options than on salary.

In this cluster there are more under 40 years old respondents, and a higher proportion of men than rest of the sample. Additionally, this cluster includes relatively fewer students and relatively higher proportion of individuals earning 60,000-80,000 euros and 80,000-100,000 euros per year, as well as a higher proportion of individuals with a bachelor's degree as their highest level of education. Employees belonging to this cluster can be beneficial to an employer in several ways. Their focus on the tangible benefits of a workplace may make them particularly motivated to achieve specific goals or targets, leading to increased productivity and output.

Additionally, their interest in remote work options may make them more flexible and adaptable, allowing them to work effectively in a range of different environments. This can be particularly valuable for organizations that are looking to expand their remote work capabilities. Furthermore, these employees may be more likely to seek out opportunities for personal and professional development, which can benefit the organization in the long term.

**Valuer of flexible and interesting work - 22,5% of the respondents**

People who value flexible and interesting work may be individuals who are looking for a work environment that allows them to have some degree of control over their schedule and the tasks they perform. They may also be interested in work that is varied and challenging, as it allows them to use their skills and abilities in different ways and learn new things. These individuals may be more motivated and engaged in their work if they feel that it is

meaningful and fulfilling. They may also be more open to new ideas and approaches and may be more adaptable and innovative in their thinking. Overall, people who value flexible and interesting work are likely to be proactive, curious, and self-motivated. People in this cluster are more likely to be females and students than rest of the sample. In this cluster there are also relatively more respondents with Master's degree as their highest educational level.

There are many ways in which individuals who value flexible and interesting work can benefit the workplace. Flexible work arrangements can allow employees to better manage their work-life balance, which can lead to increased productivity and reduced absenteeism. It can also improve employee satisfaction and morale, as they allow people to have more control over their work environment and schedule.

### **Remote work enthusiast - 19.1% of the respondents**

A remote work enthusiast is often very interested in, and supportive of, the concept of remote work. They may have a strong preference for working remotely and may actively seek out remote work opportunities.

People in this cluster are more likely to be over 40 years old and have more likely children under 15 years living with them in the same household. There are relatively more females and relatively less students than in the sample average. These findings contradict the results from research made by Zhang et. al (2020), where they found that employees with children are less likely to work from home (Zhang, Moeckel, Moreno, Shuai, & Gao, 2020).

Remote work enthusiasts are likely to have good self-motivation and discipline, as they need to be able to work independently and effectively manage their time when working remotely. They may also have good communication and collaboration skills, as they will

need to be able to communicate effectively with team members and stakeholders through remote channels.

Remote work enthusiasts may also be proactive in finding ways to stay connected with their colleagues and teams and may be skilled at using technology and tools to facilitate remote work. They may also be advocates for remote work and may be interested in sharing their experiences and insights with others.

### **Salary-oriented – 8,6% of the respondents**

A salary-oriented employee keeps extrinsic compensation from her work in high value. They may prioritize salary and compensation over other factors such as job satisfaction, work-life balance, or company culture when considering job opportunities.

Salary-oriented employees may be willing to take on additional responsibilities or work longer hours to earn a higher salary and may be proactive in negotiating for higher pay or seeking out promotions and raises.

There are relatively more 30-39 years old respondents in this cluster. Trade school is more likely to be the highest educational degree for people belonging to this cluster than rest of the sample. There are relatively more people in both income level groups 20 000- 40 000 euros and over 100 000 euros in this cluster.

Salary-oriented employees can be beneficial to a company in several ways. They may be highly motivated to succeed and to contribute to the success of the company, as their primary focus may be earning a high salary. This can lead to increased productivity and performance, as they may be willing to put in extra effort to achieve their goals.

## 5.4 Willingness to pay (WTP)

As discussed in the literature review, measuring WTP using direct surveys such as open questions e.g., “*How much would you be willing to pay for product/feature/service X?*”, has proved to produce unreliable results in comparison to indirect surveys. Nagle and Holden (2002) even claim that direct surveys are “*useless at best and potentially highly misleading*” (Nagel & Holden, 2002). In our survey we approached this issue by using both open questions (direct surveys) as well as the stated preferences (indirect surveys). With this approach, we were keen to discover how much the respondents’ answers to open questions differed from their stated preferences they later provided in the choice-based conjoint survey.

To interpolate the respondents’ stated preferences regarding how much each respondent is willing to give up in the choice-based conjoint analysis (stated preferences), we first had to ensure that the respondents had high enough RLHs (this was one reason to filter out RLHs below 0.55 which maybe a low-cut point) and, moreover, that their part worths with respect to 1 and 3 days of remote work were increasing.

Out of all the respondents, there were 444 respondents that fulfilled the root-likelihood criterion “0,55 or more” and after screening out the respondents not having increasing part worths for 3 days compared to 1-day respondents remained for analysis.

### *Comparing the utilities for one remote day per week*

We wished to calculate the percentage of salary the utility decrease of which is the same as the utility gain of 1 (or 3) days of remote work. If a respondent’s utility gain from x days of remote work was larger than the utility loss from a 5 % salary decrease, but less than the utility loss of 10% salary decrease, the respondent is willing to give up salary somewhere between 5-10% for x days of remote work The correct percentage is achieved using linear interpolation. If the respondent’s utility gain from x days of remote work is less than the



utility loss from a 5% salary decrease the relevant salary decrease can be calculated using linear interpolation and is between 0 and 5 %. If the utility gain from x days of remote work is larger than the utility loss of 10 % wage decrease then percentage of WTP is larger than 10%.

If the respondent's utility gain from one x days of remote work is less than the utility loss from a 5% salary decrease the relevant salary decrease can be calculated using linear interpolation and is between 0 and 5 %. In Table 10, we have compiled the answers to the direct and indirect questions for one remote day.

*Table 10. Willingness-to-pay based on direct and indirect questions for one day of remote work.*

	0 %	1-3%	4-6%	6-10%	>10%
Direct questions	181	43	122	61	31
Indirect questions	1	35	107	127	168

N = 438

Based on the open answers, most of the respondents were not willing to pay anything for one remote day per week, and second most they were willing to pay anywhere between 4-6%. The indirect answers seem to produce higher WTP figures than the direct answers.

Once we had the preferences for the respondents from both the direct questions as well as the results of indirect questions, we then compared the differences between the two. In Table 11, we have compiled the absolute differences for one remote day per week. For example, a respondent's answer to the open question regarding one remote day per week could have been a 7% decrease in salary and their respective interpolated survey results was 10% decrease in salary for one remote day per week which gives us the difference of 3 %.

*Table 11. Comparison between direct questions and indirect conjoint analysis results for WTP of one remote day per week.*

	0 %	1-3%	4-6%	6-10%	>10%
Count	11	100	94	56	177
Share of total	3 %	23 %	22 %	13 %	41 %

N = 438

As presented in Table 12, 23% or 100 respondents' response to the direct question differs between 1-3 absolute percentage points compared to the results from the indirect data. Similarly, 94 respondents differ between 4-6 absolute percentage points, and so forth. Interesting findings are that only 3% of the respondents' response to the open question was the same as their derived answer from the conjoint analysis, and for most of the respondents their answer differed more than 10 absolute percentage points.

*Comparing the utilities for three remote days per week*

Interpolation was also performed on the conjoint analysis results for the possibility of three remote days. Similarly, we show the results to the open and indirect data for three remote days per week as well as the absolute differences below.

*Table 12. Willingness-to-pay based on direct and indirect questions for three days of remote work.*

	0 %	1-3 %	4-6 %	6-10 %	>10 %
Direct questions	118	26	96	105	93
Indirect questions	0	9	27	107	295

N = 438

*Table 13. Comparison between direct questions and indirect conjoint analysis results for WTP of three remote days per week.*

	0 %	1-3 %	4-6 %	6-10 %	>10 %
Count	12	80	78	92	176
Share of total	3 %	19 %	18 %	22 %	41 %

N = 438

In Table 12, we can see that, again, most respondents were not willing to reduce their salary for three remote days. Here however, the answers are more evenly distributed among the ranges for the direct questions than compared to one remote day. The indirect data leans heavily towards the higher ranges.

As presented in Table 13, 19% or 80 respondents' response to the open question differs between 1-3 absolute percentage points compared to the interpolated answers from the

conjoint analysis. Similarly, 78 respondents differ between 4-6 absolute percentage points, and so forth.

Again, only 12% of the respondents' response to the open question was the same as their derived answer from the conjoint analysis survey, and for most of the respondents their answer differed more than 10 absolute percentage points.

#### *More analysis*

Firstly, the results tell us that for most respondents the utility from the possibility of three remote days per week is higher than utility from the possibility of just one remote day per week, and higher than the possibility for no remote days per week. It seems that for most, the gain in the number of possible remote days per week improves the attractiveness of a workplace. It should be noted however, that this refers to just the possibility of remote working days, not whether these individuals would prefer to work remotely three days per week. This implies that the respondents might value the perceived autonomy and flexibility to choose how they work, more than the remote work itself.

Secondly, results from the comparison of answers from the open questions and the derived answers from the conjoint analysis support previous literature on the accuracy of the direct survey method. Measuring WTP with direct surveys and open questions seems to be unreliable at best. Asking individuals to directly state some price point that they would be willing to pay for a product/service/feature does not provide reliable results. When presented with a situation where the respondents must choose between different alternatives, e.g., revealing their true price point (or WTP), these results differ on almost all occasions from the initial answers.

Let's first examine the comparison of the possibility of one remote day per week. Only 14% of the respondents' (62 respondents) response to the open question was higher (*amount of salary they're willing to decrease*) than the interpolated answer from the conjoint analysis. Respectively, for the possibility of three remote days, just 11% (51 respondents)

individuals' response to the open question was higher than the interpolated answer from the conjoint analysis.

This indicates that most respondents grossly understate how much they truly value the possibility of even one remote day, let alone three. As the focus is heavily on the price (e.g., salary decrease in this case), respondents heavily underestimate the utility of the remote working days.

Referring to previous literature, we discovered some of the flaws of the direct surveys in our results:

1. By placing the focus namely on the price, we displace the importance of the other attributes and in result receive skewed results (Breidert, Hahsler, & Reutterer, 2006).
2. Respondents are not incentivized to reveal their true WTP. They might overstate their or understate their prices due to prestige or consumer collaboration. Our results showed the latter, respondents understated their true prices. According to Nessim and Dodge (1995), this may be due to the respondents considering their roles as "conscientious buyers" in keeping the prices down (Nessim & Dodge, 1995).

One of the aims of this study was to answer the question: "*Are open questions regarding willingness-to-pay consistent with the respondents' stated preferences?*". According to Miller et. al. (2011), several studies such as (Backhaus et. al. 2005, Silva et. al. 2007) confirmed that there is often a significant difference in the results gathered between direct open questions and indirect questions e.g., conjoint analysis (Miller, Hofstetter, Krohmer, & Zhang, 2011). Our analysis of the WTP of remote working days confirms such findings, as respondents are quite inconsistent in their responses when compared to their stated preferences.

## 6 Discussion and conclusions

### 6.1 Research questions revisited

The purpose of this research was to identify the attributes that knowledge workers value in the process of seeking a new job. We organized focus group interviews to examine these attributes affecting the perceived total value of a working position. We also conducted a choice-based conjoint survey to find out if clusters with differing preference structures could be found. In addition, the survey data was used to assess respondents' willingness-to-pay in the context of salary and remote work.

Overall, our research provides new insights into the attitudes and preferences of today's knowledge workers in the age of remote work. By understanding the unique motivations and goals of these different segments of employees, we can develop strategies for supporting and managing them effectively. This can help to improve the work experience and productivity of employees, and ultimately benefit the organization. To research this topic in a concise and proper manner, we wanted a set of research questions that covered all bases, all the while not being too broad:

*Q1: What are the attributes that knowledge workers value most when they are seeking a job?*

*Q2: Is it possible to identify clusters among respondents with different preference structures and if so, what are those clusters?*

*Q3: Are open questions regarding willingness-to-pay consistent with the respondents' indirect preferences measured via choice-based conjoint-analysis?*

Next, we will examine and discuss how well we managed to answer our research questions and discuss the implications of these answers.

*Research question 1: What are the attributes that knowledge workers value most when they are seeking a job?*

The findings from this study suggest that knowledge workers consider a wide range of factors when evaluating job opportunities. It was found that all attributes are considered at least slightly important by the respondents. This suggests that the process of seeking a new job is a major decision that involves the consideration of many different factors, and that nothing is deemed completely irrelevant. The most highly valued attribute when seeking a new job was found to be salary and bonuses, which is part of the extrinsic work values dimension identified by Pataki-Bitto & Kapusy (2021). However, it was also found that attributes from the other four dimensions in the Pataki-Bitto & Kapusy (2021) framework - intrinsic work values, social work values, growth and power, and convenience - were among the most highly valued attributes (Pataki-Bitto & Kapusy, 2021).

It is not surprising that financial compensation is seen as the most important factor for employees when considering a new job. Many individuals have a certain level of financial compensation that they consider to be a minimum requirement to be interested in a job opportunity. This is likely due to the fact that financial compensation plays a significant role in an individual's ability to meet their basic needs and financial obligations. From the intrinsic dimension we found that people value positions where they have interesting and varying tasks with the possibility to influence one's own work. Appreciation of one's work and the possibility for growth were also highlighted as important attributes.

From the social value dimension especially the role of good supervision was emphasized. This highlights the importance of effective leadership and support in the workplace, especially in the current hybrid work environment. In the growth and power dimension, career development opportunities were identified as the most important attribute. This suggests that employees may be attracted to organizations that offer a range of career development opportunities and have a strong reputation.

One of the major findings of the research was that the convenience dimension, which includes attributes related to the flexibility and ease of the work environment, has a significant impact on the job seeking process. This suggests that knowledge workers value the ability to have control over their work environment and schedule.

Overall, these findings demonstrate the importance of considering a wide range of factors when designing work environments and recruiting employees. By offering a range of rewards and opportunities, as well as a positive and supportive work environment with possibilities for flexible work, employers may be more successful in attracting and retaining top talent.

*Research question 2: Is it possible to identify clusters among respondents with different preference structures and if so, what are those clusters like?*

As we sought to identify different clusters of employees based on their preferences and aspirations within their workplace. We believed that by understanding the unique motivations and goals of these different clusters, we could gain insights into how employers could better support and manage employees in the workplace.

This involved surveying a large sample of employees and analyzing their responses to questions about their preferences and aspirations in the workplace. We used latent class clustering to identify distinct clusters within the data. Through the clustering, we received clusters with heterogenic preferences across them. This allowed us to gain a better understanding of the motivations and goals of employees in the workplace, and to develop strategies for supporting and managing these different clusters effectively.

These clusters were constructed into five employee profiles which were named as follows: *Meaningfulness seeker*, *Advantage optimizer*, *Valuer of flexible and interesting work*, *Remote-work enthusiast*, and *Salary-oriented*.

The *Meaningfulness seeker* cluster values intrinsic motivation and finds highly interesting and meaningful work to be more important than a higher salary. In contrast, the *Advantage optimizer* cluster values measurable benefits and does not prioritize intrinsic motivation. *Valuer of flexible and interesting work* cluster values the ability to

work remotely and finds highly interesting and meaningful work to be more important than a higher salary. *Remote-work enthusiast* cluster values the ability to work remotely more than any other attribute. The *Salary-oriented* cluster values a higher salary above all other attributes.

Even though the main point of clustering was to identify differences in the clusters, one of the most exciting results of the cluster analysis revealed that, with the exception of the *Salary-oriented* cluster, the majority of respondents (91.4%) were willing to accept a salary reduction of 5% or more in exchange for the option of one day of remote work per week, given that their current arrangement involved working exclusively from the office. This finding suggests that the majority of knowledge workers have adapted to hybrid work arrangements and place a high value on the ability to work remotely. This implies that employers may face resistance if they attempt to strictly enforce in-office work, as it appears that this is not the preference of modern knowledge workers

Overall, the findings of this study suggest that employees have different preferences and priorities when it comes to seeking employment in the post-pandemic era, and that a one-size-fits-all approach may not be effective in attracting and retaining top talent. Employers should consider their employees' specific preferences and priorities to create a job offer that is attractive and appealing to them.

*Research question 3: Are open questions regarding willingness-to-pay consistent with the respondents' indirect preferences measured via choice-based conjoint analysis?*

As previous research has proven that direct open questions used to measure WTP often provide significantly different results compared to indirect questions, we wanted to test this ourselves. Open questions have proven unreliable at best, and often useless, whereas indirect questions from conjoint analysis reveal the respondent's true nature.

Our survey questions were as follows:

1. *How much percentage wise (%) would you be willing to decrease your salary to obtain the possibility of one (1) remote working day per week (in a situation with no possibility for remote work)?*



2. *How much percentage wise (%) would you be willing to decrease your salary to obtain the possibility of three (3) remote working days per week (in a situation with no possibility for remote work)?*

Our results were strongly in line with previous research. On average for both questions, between 2-3% were able to state their true maximum decrease (WTP price) in the open question that was also in line with the indirect conjoint analysis results. Now this may be due to a multitude of reasons, but often the answers were not even in the same ballpark for the two types of results for any single respondent.

What's more fascinating is how most respondents, between 84 to 89%, underestimated their true WTP, meaning that when the situation arose, although hypothetical, they were willing to decrease their salary much more than what they initially stated.

When considering any managerial implications of such findings, one must carefully interpret these results and first bear in mind two factors at play:

1. This survey measured the possibility of remote working days in a situation where the employee currently possesses none. Thus, it can be argued that such wording does not necessarily equate to the respondent preferring to work remotely, but rather values any perceived autonomy to work freely for one day per week in a situation where one might feel boxed in by strict working guidelines.
2. Most other variables in our survey were standardized, meaning any findings from this paper must be carefully assessed on a case-by-case basis if considering whether these results relate to your situation.

## 6.2 Limitations, validity, and reliability

When considering any managerial implications of the findings, one must carefully interpret these results and first bear in mind two factors at play.

### Limitations

This survey measured the possibility of remote working days in a situation where the employee currently possesses none. Thus, it can be argued that such wording does not necessarily equate to the respondent preferring to work remotely, but rather values any perceived autonomy to work freely for one day per week in a situation where one might feel boxed in by strict working guidelines.

Most other variables in our survey were standardized, meaning any findings from this paper must be carefully assessed on a case-by-case basis if considering whether these results relate to your situation. This survey did not consider the legislation or insurance policies related to working remotely. Even though employees would prefer to have full autonomy from where to work, this could be impossible due to insurance contracts or law.

There are several limitations to consider when using a sample such as ours in a study. These can affect the generalizability of the study's results and can limit the conclusions that can be drawn from the study. In our case, one must consider the following:

Firstly, our sample may not be representative of the larger population of knowledge office workers being studied. If the sample is not representative, the results of the study may not be applicable to the population.

Secondly, our sample may be subject to sampling bias, which can occur when certain groups are more or less likely to be included in the sample. This can lead to distorted results and can limit the generalizability of the study's findings.

## **Reliability**

Reliability of the respondent data was measured by root-likelihood (rlh) measure. The value of RLH can differ between 0 and 1, where high value indicates consistent answers and low value randomness in the respondent's choices over the different choice tasks. Root likelihood can be used to identify and exclude "bad" respondents from the data set to be analyzed. The exact minimum level of RLH depends on the number of attributes used in the survey (Sawtooth, 2022).

## **Validity**

The research started with thorough investigation of current literature around the topics of values, work values and work value theories. The framework from Pataki-Bitto & Kapusy (2021) was selected as the basis for the focus group interviews to further nurture our understanding around topic (Pataki-Bitto & Kapusy, 2021). Through these steps we gained a great understanding of the attributes that are valued mostly in the modern hybrid working culture.

With the information obtained from the previous step we were confident in proceeding to design the CBC survey by following the best practices from literature. The CBC survey was comprehensively tested and developed further based on the testing results and feedback from our supervisor.

## **Ethical considerations**

As this was a survey-based study, there were some ethical considerations in the data collection process. According to Bhandari (2022), ethical considerations are rules and principles that help you abide a code of conduct in doing research (Bhandari, 2022). These considerations protect the participants, ensure the validity of the research, and maintain scientific integrity (Bhandari, 2022). We ensured the following:

### **Voluntary participation**

It is important to ensure that all individuals who participate in a study do so willingly, without any pressure or coercion (Bhandari, 2022). To ensure this, we explicitly stated

that participation in the survey was voluntary and that individuals were free to choose whether to take part. We also provided clear instructions on how participants could exit the survey at any time if they wished to do so.

### **Informed consent**

It is essential to inform participants about the purpose of the study and any potential benefits or risks associated with their participation (Bhandari, 2022). In this case, we provided information about the purpose of the study and the benefit (gift card) that participants would receive for taking part. We also made sure to explain any potential risks or discomforts that could arise from participating in the survey, such as feeling overwhelmed or distressed.

### **Confidentiality and anonymity**

To protect the privacy and confidentiality of participants, we made it clear that all answers would be anonymous and handled in a confidential manner (Bhandari, 2022). We also emphasized that no names or emails would be traced back to their responses.

## **6.3 Managerial implications**

Managerial implications of this research relate mostly to HR related functions, such as recruiting new employees, retention of current employees and the overall satisfaction of employees.

Firstly, with the help of this research, HR can assess the preferability of remote work over other preferences. While this cannot be performed directly for each individual, our findings give insight into how these preferences fluctuate within our rather comprehensive sample. This can be utilized in recruiting new employees as well as in planning hybrid working guidelines for current employees.

In addition, employers can utilize the methodology and structure of questioning in the case that they would want to perform a similar analysis for example within their company. We conducted a thorough survey research that obtained substantial results and have listed out the pitfalls that one must avoid.

For example, we have evidence that shows how different WTP methods, namely direct and indirect questioning methods, provide quite different results. If management of any company wanted to survey the trade-off between salary and remote work, they would need to look past just asking direct questions to find conclusive results of the actual nature of the WTP in this case.

#### **6.4 Theoretical implications**

This study has some theoretical implications on previous research in the case of measuring the willingness-to-pay (WTP). Previous research leans heavily towards using the indirect methods of measuring WTP rather than the direct methods.

As discussed in the Literature review section of this paper, direct methods simplify a complex problem but produce rather simple results. These results then are highly unreliable at best and misleading at worst. Per our findings, there is rather vast differences between the methods.

#### **6.5 Future research**

This study increased the understanding of the preference structures of employees when seeking a new job. It would be useful to continue this line of research from the perspective of the employer. For example, it would be interesting to investigate how talent acquisition teams and human resources departments view the new hybrid working era and how it influences their efforts in recruiting and retaining employees. It would be valuable to examine whether employers are considering the possibility of offering different employment packages to individuals from different employee profiles.

Additionally, it would be useful to explore the actions that employers have taken to stay informed about the changing preference structures of employees.

This research identified various attributes that employees value when seeking a job, such as salary, intrinsic work values and remote working. A larger study could examine how these values influence job satisfaction and productivity over the short and long term. Another possibility would be to compare the attitudes of employees across different industries or sectors, such as technology versus healthcare, to see if there are any notable differences in their views on remote work.

The study focused on the attitudes of knowledge workers towards remote work in the post-pandemic era. It would be useful to examine how these attitudes may change over time, as well as the long-term effects of remote work on employee outcomes such as productivity and retention. Another direction for research could involve studying the attitudes of employees towards hybrid work models, where employees work remotely some of the time and in an office setting at other times.

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## 8 Appendix

### 8.1 Appendix A: Survey design.

You may see the structure and design of the survey below. There were in total 7 choice-based tasks, but only one screen is included in the illustration.

Master's thesis research to measure the employee preference structure in the post-pandemic working era.

**Thank you for opening the survey!** This survey tries to bring more understanding to the aspects of work that employees value.

A gift card from GoGift worth 50€ will be drawn among the participants who wish to leave their email addresses at the end of the survey.

#### Information for Research Participants

You have been invited to participate in a research study. Participation in this study is voluntary and you can discontinue your participation in the study at any time.

The data will be processed anonymously. Identifying information such as IP addresses will not be gathered and the responses can not be traced back to you. Only basic demographic questions will be asked and processed in the research. Anonymized data is no longer personal data.

The results of the study may be published in scientific journals. No personal data is stored, shared, or published.

This study is organized by Otto Kuure (otto.kuure@aalto.fi) and Matias Sauramaa (matias.sauramaa@aalto.fi).

Please mark the box to indicate your decision to participate or not to participate

- I agree  
 I disagree

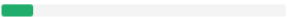
Next

Welcome!

The purpose of this survey is to find out the preferences of individuals towards remote work and salary.

The survey first presents some background questions, which are followed by direct questions and then a preference survey.

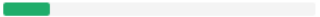
[Back](#) [Next](#)

0%  100%

In your line of work, is it possible to work remotely?

- Yes
- No

[Back](#) [Next](#)

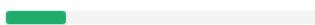
0%  100%

What is your gender?

- Female
- Male
- Other
- Prefer not to say

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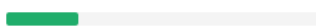
0%  100%

How old are you?

- under 18 years old
- 18 - 29 years old
- 30 - 39 years old
- 40 - 49 years old
- 50 - 59 years old
- 60 + years old

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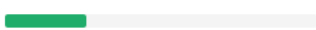
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What is your current income level?

- 0 - 20 000 euros per year
- 20 000 - 40 000 euros per year
- 40 000 - 60 000 euros per year
- 60 000 - 80 000 euros per year
- 80 000 - 100 000 euros per year
- Over 100 000 euros per year
- Prefer not to say

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0%  100%

Are you currently a student?

- Yes
- No

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0%  100%

What is the highest degree or level of education you have completed or are currently completing?

- Primary school (peruskoulu)
- High school (lukio)
- Trade school (ammattikoulu)
- Bachelor's degree
- Master's degree
- PhD or higher
- Prefer not to say

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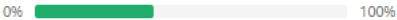
Next

0%  100%

Do you have children under the age of 15 living in the same household with you?

- Yes
- No

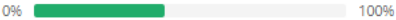
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Do you have a dedicated space for remote work in your home?

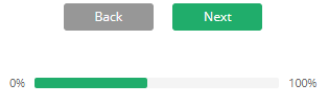
- Yes
- No

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Next we will ask two questions related to the relationship of salary and remote work.  
To give some context, imagine yourself applying for a new job, where it is mandatory to work from the office.



Imagine the following situation:

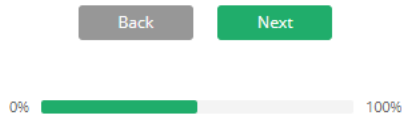
You have applied for a new job, and you have been offered the position.

The company has an office in the city you currently live in, and the commute time is roughly **25 minutes**.

The salary for the new role **equals** your salary request.

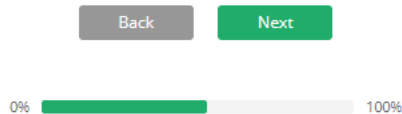
In this new role, it is **mandatory** to work at the office, with **no possibility** for remote work.

How many **percentages** (0-100%) would you be willing to reduce your offered salary, if you could work **one (1) day per week remotely**?



Now imagine the exact **same** situation:

How many **percentages** (0-100%) would you be willing to reduce your offered salary, if you could work **three (3) days per week remotely**?



Next you will be presented one rating question and 7 choice questions, where **you need to choose among possible job offers the one you prefer over the others.**

**The offers are similar in all respects except in the attributes presented in the profiles.** At first the questions may feel difficult, but usually the feeling is gone or at least eased after a few questions.

Attribute **Interest and meaningfulness** describes how interesting and meaningful the offered position is to the individual. Attributes **Salary** and **Remote vs. office work** are self-explanatory.

**Choose the best job offer totally according to your own valuations.**

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Please rate the following ways of working with respect of their desirability.

	Undesirable	Somewhat Desirable	Very Desirable	No Opinion
Autonomy to <b>freely choose</b> where to work from.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work from office, <b>no possibility</b> for remote work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Remote work possible up to <b>1 day</b> per week.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Remote work possible up to <b>3 days</b> per week.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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You have received three job offers. From the choices below, pick the one that **you prefer the most**.

**All other factors**, such as location, prestige, career development, status, etc. are the **same in all of the options**.

1 / 7

<b>Salary</b>	100% of your salary request.	95% of your salary request.	100% of your salary request.
<b>Interest and meaningfulness</b>	Average	High	High
<b>Remote vs. office work</b>	Remote work possible up to <b>1 day</b> per week.	Remote work possible up to <b>3 days</b> per week.	Work from office, <b>no possibility</b> for remote work.
	<input type="button" value="Select"/>	<input type="button" value="Select"/>	<input type="button" value="Select"/>



Thank you for your answers. If you wish to participate to the draw for the gift voucher, please leave your email below. This is completely **voluntary**.

Your answers **will not be traced** back to your email!



## 8.2 Appendix B: LinkedIn post and example of an email message used to distribute the survey

Are you sick and tired of working remotely or do you prefer the peace of the home office?

How much does salary impact your career choices?

What do you really value in your work?

Me and [Otto Kuure](#) are currently working with our Master's Thesis where we study what employees value in the new hybrid working era. As part of this research we have designed a survey to measure employee preferences towards remote working. If you want to be part of this research and ponder your work values, we invite you to take a 5-10 minute survey about your own preferences at work.

<https://lnkd.in/dSwCgQEb>

A 50€ gift card from GoGift ( <https://lnkd.in/dEPgkrw3>) will also be drawn among the participants who wish to leave their email addresses at the end of the survey.

[#work](#) [#career](#) [#homeoffice](#) [#remotework](#) [#remote](#) [#salary](#) [#salarynegotiation](#)  
[#flexibility](#) [#palkka](#) [#etätyö](#) [#hybridwork](#)

### Web Link

[dsc23865.sawtoothsoftware.com](https://dsc23865.sawtoothsoftware.com)

Are you sick and tired of working remotely or do you prefer the peace of the home office?

How much does salary impact your career choices?

What do you really value in your work?

My name is Matias Sauramaa and I work in the Business support & Testing unit as a Solution Analyst.

At the same time, I am working on my thesis for Aalto University where I study preferences of employees in the new hybrid working era. If you want to be part of this research and ponder, what do you really value at work, I invite you to answer this short survey:

<https://dsc23865.sawtoothsoftware.com/J4GtBJqYWh/cgi-bin/ciwweb.pl?studyname=J4GtBJqYWh>

I hope you find 5-10 minutes of your time to answer the survey! 😊 Please feel free to contact me via email if you have questions regarding the survey.

PS A 50 € gift card from GoGift ( <https://gogift.io/en/fi/eur> ) will be drawn among the participants who wish to leave their email addresses at the end of the survey.

**NOTE! This research is purely for academic purposes and no data is shared to RELEX from where respondents could be identified.**

Matias Sauramaa  
Solutions Analyst