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MEASURING DNOVO'S IMPACT: A TOOLKIT FOR ASSESSMENT: FROM AN
SOCIAL PERSPECTIVE

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Abstract

This work project develops an impact assessment model for dNovo, a Portuguese non-profit organisation addressing unemployment among educated individuals over 50 years. It explores societal ageing, employment challenges, and dNovo's strategic initiatives. Using the ABC – Attitude Model (Jain 2014) and Bronfenbrenner's (1979) socio-ecological framework, the work project proposes a multifaceted toolkit to assess individual, organizational, and societal impacts of the company.

The study highlights dNovo's alignment with global sustainability efforts, revealing its contribution to reducing age-related inequalities, and addresses the assessment of the organization's impact, contributing to the development of the organization's mission.

Keywords: ABC – Attitude Model, Impact Assessment, Toolkit, Qualified Unemployment.

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1. Introduction

This work project is focusing on the development of an impact assessment model and tools for dNovo, an organization which addresses the fundamental societal issue of unemployment in Portugal among people over 50 with a high level of education.

Despite expectations that high qualifications would ease the process of finding a new job, both dNovo's experience reports and studies reveal the considerable difficulties older, highly qualified individuals encounter in re-joining the workforce. The aim of this dissertation is to indirectly contribute to coping with this societal problem by making dNovo's work more scalable, evaluable, and presentable through an impact model.

The work seeks to develop an impact assessment model that provides a clear rationale for dNovo's work, emphasizing its importance in addressing the challenges faced by individuals, organizations, and society as a whole. One of the identified key issues is the need for sustainable partnerships, where partners recognize the added value and feel compelled to contribute to addressing this issue.

In collaboration with dNovo, it was determined that the organization lacks a unified model for evaluating its work. The proposed toolkit aims not only to fill this gap but also to serve as a "showcase model" for the future. This model is intended to articulate the essential reasons why dNovo's work is crucial at the individual, organizational, and societal levels. Through this endeavour, the dissertation is dedicated to supporting dNovo in making a compelling case for the significance of its mission.

2. The Problem dNovo Seeks to Contribute to: Unravelling Ageing Societal Dynamics and Employment Complexities

Our world is confronted with a significant social and economic challenge known as the rapid ageing of society (OECD 2018). Almost every country has to deal with the new realities, which means growth as well as the proportion of older people within their population (UN Population Facts 2020). In essence, this means that while individuals are living longer, which is beneficial on a personal level, it poses a political challenge for society. In OECD countries, the ratio of individuals aged 65 and older to those in the working-age bracket (15-64) is expected to increase by 1 in 2 in 2050 (OECD 2018). Presently, approximately 728 million individuals globally are aged 65 years or older (UN Population Facts 2020). Over the next three decades, projections indicate that this figure will surpass its current state, more than doubling to reach 1.5 billion older persons by the year 2050 (UN Population Facts 2020). A direct consequence of this trend could be that younger generations will have to bear the responsibility of supporting and financing the social system, potentially leading to a gradual decline in the rising prosperity observed in recent years (OECD 2018).

Mid-career and older individuals face significant challenges in re-entering the labour market after experiencing unemployment, particularly among those aged over 45. Long-term unemployment, defined as being unemployed for a year or longer, is prevalent among this demographic group, constituting a weighted average of 44 per cent of the long-term unemployed population across eight surveyed countries in 2020 (an increase from 36 per cent in 2000). The International Labour Organisation's data reveals that individuals aged 55–64 sustain more severe consequences, with greater earnings losses and extended periods of unemployment compared to their younger

counterparts. The impact of persistent unemployment not only affects the well-being of individuals but also imposes a substantial societal cost (OECD The Midcareer Opportunity 2023, 15).

Opportunities for mid-career job switches are limited, with age, location, and physical wellness acting as barriers. Removing these barriers is crucial to unlock the benefits of an intergenerational workforce. Smart interventions, including evaluating biases, targeted training interventions, and rethinking early retirement incentives, are proposed to support older workers. The Midcareer Opportunity Report by the OECD (2023) emphasizes the need for swift responses to the challenges posed by demographic shifts and technological advancements, urging proactive measures to embrace the opportunities presented by an ageing workforce (OECD The Midcareer Opportunity 2023, 15).

Given these circumstances, it is evident that adjustments in workplace and retirement practices are necessary. The Nobel prize-winning economist Christopher Pissarides highlights the historical oversight in planning pensions without considering future developments and stresses the importance of rethinking work beyond retirement age, considering healthy life expectancy (Koutsokosta and Gauret 2020).

To counteract this social phenomenon, both the EU and OECD recommend policymakers promote longer working lives (OECD 2018). The European Commission consistently explores innovative approaches and solutions to reintegrate older individuals into the labour market. The primary tool for achieving this goal is the European Social Fund (ESF), which plays a key role in fostering equitable job opportunities, providing general job support, and assisting individuals in securing improved employment (Koutsokosta and Gauret 2020). The ESF is one of the Structural and Investment Funds (ESIF) that aims to reduce disparities among regions and foster a more inclusive and dynamic European economy (EU Commission 2023).

In 2018, the OECD released a Recommendation Paper, urging governments to "*give people better choices and incentives to continue working at an older age for responding to the challenges of rapid population ageing*" (p.1). This recommendation primarily focuses on three goals: incentivizing long careers to raise the retirement age, addressing employers to retain and hire older individuals, and promoting the employability of individuals throughout their professional careers. Results indicate a predominant emphasis on the first goal, reflected in the increasing effective retirement age (OECD 2018).

However, as the OECD Council states, only increasing the retirement age is not a sustainable long-term solution, especially for individuals who may suddenly lose their jobs – precisely the target group of dNovo. The dilemma of "*being too young to retire and too old to employ*" (OECD 2018, 2) aptly describes the predicament faced by many qualified older unemployed individuals. This could be prevented by pursuing the OECD's two additional goals (OECD 2018).

Governments cannot bring about these structural changes and necessary steps alone. Involving the civilian population, especially affected groups, is essential to co-create specific reforms (OECD 2018).

The impact of the ageing demographic on the economy, as highlighted by Pissarides, reveals demographic imbalances between northern and southern European countries. The north, including Scandinavians and Germany, appears more prepared to adopt new technologies and invest significantly in research and development (R&D) and infrastructure. In contrast, the South seems less ready, potentially leading to increased divergence in the next 10 to 20 years (Koutsokosta and Gauret 2020).

Pissarides (2020) emphasizes the practical effects on public finances, noting increased spending and employment in the health sector. The author warns about the need for careful planning in the relationship between the private and public sectors, particularly in reforming pension systems. To manage Europe's ageing workforce effectively, Pissarides (2020) suggests careful consideration of technology infrastructure, advocating for a pan-European approach to avoid disparities. He underscores the necessity to reform pension systems, preferably transitioning to funded pensions. Additionally, addressing challenges like overcrowding in cities, environmental concerns, and congestion is crucial. Pissarides (2020) calls for collaborative action to prevent developments that could jeopardize the unity and cohesion of the European Union, highlighting both technology and immigration as critical issues that need collective attention (Koutsokosta and Gauret 2020).

3. Excursion: Insight into the Portuguese Labour Market

The Portuguese labour market appears to present a paradox with record-low unemployment rates and a peak in job vacancies (Duarte 2021). As of October 2023, Portugal reported an unemployment rate of 2.8% and an annual employment rate of 72.38% (OECD Employment n.d.). Despite these positive indicators, the country faces persistently high rates of long-term unemployment. This paradox is explained by a mismatch between the skills sought by companies and those possessed by job seekers, particularly evident in the older population with lower education levels. The digital transition further exacerbates this issue, with a significant portion of the population lacking digital skills (Duarte 2021).

The long-term unemployment rate increases with age, reaching 53% among the unemployed aged 45 to 49 and 59% among those aged 50 and over in 2021. The mismatch between skills demanded by firms and those offered by candidates is a significant factor behind the current high number of unfilled job vacancies (Duarte 2021).

Efforts to address this challenge include a focus on boosting workers' qualifications and skills, aligning with Portugal's Recovery and Resilience Plan (EU Commission n.d.), which allocates significant funds to this goal. The plan aims to enhance workers' capabilities and bridge the skills gap, ultimately improving the labour market situation (Duarte 2021).

Portugal has implemented several key policies to promote longer working lives and address pension reform. Notable measures include the introduction of a new pension benefit formula considering the entire career, a "sustainability factor" adjusting benefits based on changes in life expectancy, and incentives to postpone retirement until the age of 70. The statutory age of retirement has been raised incrementally, reaching 66 and two months in 2016. Social pensions and targeted benefits, such as the Solidarity Supplement for the Elderly, aim to fight poverty among older individuals. While phased retirement options are limited, combining part-time work with a partial pension is not common. The pension system rewards longer careers through increased accrual rates and a monthly bonus for those retiring after the legal age, although the maximum accrual period is capped at 40 years, potentially reducing incentives to work beyond this threshold (OECD Portugal 2017).

4. Presentation of our Company, dNovo

As their slogan on the website already implies, “O futuro faz se dNovo” [“the future is made dNovo” (which stands for anew/again)], the non-profit organization based in Portugal supports highly qualified individuals aged over 50 with a “new start” regarding their professional lives (dNovo 2023).

They address the pressing issue of qualified senior unemployment and they have been established with a mission to reintegrate professionals aged 50 and over, who have relevant academic

backgrounds and professional experiences (Presentation dNovo 2023, 3). This targeted approach is deliberate, allowing dNovo to provide more effective support to this demographic, given resource constraints that limit their ability to assist other groups of unemployed individuals. dNovo strives to reshape the role of its target group in the contemporary labour market. Therefore, their primary goals are reframing these professionals within the current job landscape, putting their knowledge to use, requalifying their skills, and reigniting their motivation to actively contribute to the economy. Their mission is to act as a transformative agent and therefore they want to contribute to inter-generational balance, to the sustainability of the economy and to provide an integrated response to the growing problem of qualified unemployment (Presentation dNovo 2023, 3-5).

Over the past decade, the percentage of qualified unemployed individuals has been on the rise, presenting a global concern (dNovo Presentation New Data 2021, 5-6). This phenomenon not only affects individuals but also results in the underutilization of qualified human resources and untapped talent. The COVID-19 pandemic has further exacerbated this social issue, leading to the termination of employment contracts and the closure of companies, imposing significant costs on the country's economy (Presentation dNovo 2023, 7-9).

The causes of qualified senior unemployment are multifaceted, with both conjunctural and structural elements at play. Globalization, job transfers to lower-cost countries, industrial consolidation, digitalization, technological innovation, and the impact of COVID-19 contribute to this complex issue. Cultural and behavioural factors, including prejudices against hiring older individuals (age bias) and difficulties in adapting them to new working conditions, also play a significant role – as dNovo states based on their experience (Presentation dNovo 2023, 9-10).

4.1. dNovo's Approach and Strategic Initiatives

dNovo's intervention is structured around three pillars: Support to Professionals, Companies' Engagement, and a Matching Platform. Regarding Support to Professionals, the organization offers onboarding processes, access to mentoring programs, training partnerships, and an extensive network of contacts to professionals. The programs cover placement, entrepreneurship, and various support services. They do not identify themselves as an “employment agency”, their goal is to support these individuals on their professional journey through the above-mentioned services, taking ownership of their process to secure employment. A pivotal keyword in this context is "self-ownership." One pathway for professionals to connect with dNovo involves a strategic partnership with IEFP (Presentation dNovo 2023, 16). The public institution IEFP in Portugal is dedicated to addressing labour market challenges, combating unemployment, enhancing work quality, and implementing active employment policies (IEFP 2023).

Alternatively, professionals connect with dNovo through diverse channels, including online platforms such as the website and social media. Additionally, outreach occurs through events. Furthermore, professionals are referred by companies undergoing exit processes, and potential collaborations with recruitment companies, which dNovo partners with, contribute to expanding the network of individuals seeking support (Presentation dNovo 2023, 16).

A central aspect of dNovo's support system is the implementation of the above-mentioned mentoring models. The organization offers a senior mentoring program, which can be organized as either group mentoring or individual mentoring. This flexibility accommodates the diverse preferences of unemployed individuals, allowing them to choose between group settings for shared experiences or individual sessions for a more private approach, especially for those dealing with strong emotions (Presentation dNovo 2023).

The third pillar is a platform they developed that facilitates connections between professionals and companies. This platform includes a database of experienced professionals, spaces for companies to post opportunities, and areas for professionals to find job openings. It also communicates events organized by dNovo and its partners (Presentation dNovo 2023, 18).

As a non-profit organization, dNovo ensures financial sustainability through founder associates, partnerships, sponsorships, donations, EU grants, and awards. The funds were raised primarily to support the services provided to professionals (Presentation dNovo 2023, 20).

In conclusion, dNovo emerges as a crucial player in addressing the challenges of qualified senior unemployment, offering a holistic approach to support both professionals and companies in navigating this complex issue.

5. Initiatives and Programs Facilitating Senior Employment: A Comparative Overview

This part provides an overview of various organizations and programs dedicated to promoting employment and/or addressing the challenges faced by individuals aged 50 and older in securing meaningful employment opportunities. The initiatives discussed encompass a diverse range of geographical locations, organizational types, and intervention strategies (Appendix n°2).

5.1. Wisconsin Senior Employment Program (WISE)

The Wisconsin Senior Employment Program (WISE), situated in Wisconsin, USA, operates as a comprehensive employment training initiative targeting low-income, unemployed individuals aged 55 and older. WISE offers subsidies, part-time work experiences, and specialized training to enhance the employability of older adults, addressing both financial constraints and skill development needs (Wisconsin Senior Employment Program (WISE) 2014).

5.2. Experience Unlimited

Operating in California, Experience Unlimited is a program designed to expedite the job search process for individuals seeking employment. This initiative offers workshops on crucial aspects such as job search strategies, resume building, and interview techniques. Moreover, Experience Unlimited provides practical support by offering office space, personal computers, internet access, and fax machine usage (Experience Unlimited 2023).

5.3. Workforce50

Workforce50, a dedicated website based in New Hampshire, USA, serves as a platform for advertising job vacancies tailored to older job seekers and late-career professionals across various industries. The platform not only provides job listings but also offers information to assist individuals in navigating their job search or exploring new career directions. Users can search for jobs by location or explore opportunities with preferred employers (Lottering 2023; WorkForce50 2023).

5.4. AARP

The AARP (American Association of Retired Persons) operates as a non-profit and nonpartisan organization in the United States. Dedicated to empowering Americans aged 50 and older, AARP facilitates this through initiatives such as the Employer Pledge, which encourages employers to prioritize age diversity and create inclusive work environments (AARP 2023; Powdar 2022).

5.5. 55/Redefined

Based in the UK, 55/Redefined is an organization focused on changing perceptions surrounding ageing and unlocking the untapped potential of older individuals in various aspects of life. Their strategies include conducting surveys, forming partnerships, and engaging in activities that challenge age-related stereotypes (55/Redefined 2021).

5.6. Work over 40

The Italian association, Work over 40, aims to promote and reintegrate unemployed individuals over the age of 40 into the workforce. Through image and awareness campaigns, anti-discrimination activities, networking initiatives, and providing advice and support to employers, the association strives to create an age-inclusive employment landscape in Italy (Associazione Lavoro over 40 2019; Projeto recomeçar 2017, 25).

5.7. Senior Network

Operating in Denmark, the Senior Network focuses on matching unemployed seniors with local opportunities. The network facilitates visits to potential employers, offers short courses on job search strategies, and fosters general networking among older individuals seeking employment opportunities (Projeto recomeçar 2017, 31).

These diverse initiatives and programs, spanning various geographical locations and organizational types, collectively contribute to the overarching goal of promoting employment and addressing the unique challenges faced by individuals aged 50 and older. The strategies employed by these entities vary, reflecting a nuanced approach to the multifaceted issue of senior employment. As the global workforce continues to evolve, these initiatives serve as valuable models for fostering age-inclusive practices and promoting the active participation of seniors in the workforce.

6. Background

6.1. Impact Assessment

As previously mentioned, dNovo requested a toolkit to assess their impact on their beneficiaries, partners, employees, and society. To provide a better understanding of impact assessment, a

definition will be drawn from the literature, the importance of measuring a company's impact will be highlighted and the limitations of assessing impact will be outlined.

6.1.1. Definition of Impact Assessment

Impact assessment is a systematic process that focuses on identifying and evaluating the effects (positive and negative, intended, and unintended) of any type of organization on individuals, communities, organizations, and the environment (OECD 2014; Streatfield and Markless 2009; Arjalies and Bansal 2020). It enables the assessment of the economic, environmental, cultural, and social impacts of interventions (EU Commission 2023). Additionally, impact assessment is universally applicable, no matter which scale, scope, effect, duration, or data type (Arjalies and Bansal 2020).

In the context of this work project, with the focus being the company dNovo, a non-profit organization with a social mission of “*developing an integrated response to the growing problem of qualified unemployment*” (Presentation dNovo 2023, 3), the term "social impact assessment" could be also used. According to the International Association for Impact Assessment (2023), social impact assessment shares similarities with conventional impact assessment but is tailored to interventions with social objectives.

6.1.2. Importance of Impact Assessment

Impact assessment is important for companies and organizations as it allows them to enhance their positive impact by mitigating negative effects. It facilitates informed decision-making, efficient use of rare resources within the company, and prudent allocation of resources for funders or donors (Simfoni 2023; Arjalies and Bansal 2020). There are three main reasons why every company should, at some point, consider measuring the impact of their interventions:

1. As stated in the definition above, impact assessment reveals the actual impact firms exert on their beneficiaries, stakeholders, and society (Streatfield and Markless 2009). It will also illustrate which types of interventions are more successful for their beneficiaries (Social Impact Toolbox 2023).
2. Assessing the impact of interventions or projects allows companies to determine and enhance their effectiveness and acquire insights for improvement (Streatfield and Markless 2009).
3. Impact assessment provides organizations with access to data and reports with accurate numbers, figures, and pieces of evidence regarding their impact (Simfoni 2023), which can be used to demonstrate to relevant stakeholders the worthiness of investing in their company (Streatfield and Markless 2009). It ensures the sustainability of their organization. It is all about gaining the confidence and backing of funders (Social Impact Toolbox 2023).

In addition to all that has been mentioned, impact assessment improves various operational and management aspects of the organization, including product/service quality, productivity, performance, time management, resource management, and cost reduction (Simfoni 2023).

Besides the importance of impact assessment, it is crucial to tailor the suitable impact assessment model, aligned with the intervention's context and objectives. It does not have “*an easy-to-use framework*” that can be used in any situation (Arjalies and Bansal 2020).

6.1.3. Limitations of Impact Assessment

As for any type of work, model, or tool, limitations should be acknowledged. Here, in the context of impact assessment, three short limitations must stay in mind throughout the process:

1. No calculated effect does not mean no impact, especially in complex activities, where “*difficult-to-measure effects*” can exist (Arjalies and Bansal 2020).
2. Assessments may undervalue crucial but indirectly impactful activities (Arjalies and Bansal 2020).
3. Human biases can affect assessments due to judgment, leading to errors and cognitive bias (Arjalies and Bansal 2020).

6.2. The ABC – Attitude Model

The concept of attitudes has been a subject of interest in psychology and social sciences for many decades (Schwarz and Bohner 2007). Attitudes were first studied in the early 20th century, and it was not until the mid-20th century that researchers began to develop structured models to understand and analyse attitudes (Jain 2014).

The ABC Model of Attitudes has practical applications in various fields, including marketing, psychology, and social sciences. It provides a structured approach for analysing, predicting, and influencing attitudes and behaviours. By focusing on each component, individuals and organizations can develop strategies to shape and modify attitudes in a desired way (Mohd 2022).

6.2.1. The Three Components of the Model (Jain 2014)

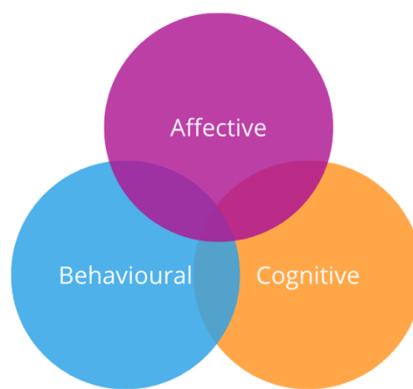


Figure 1: ABC Model

The ABC Model posits that attitudes consist of three primary components, including affective, behavioural and cognitive. The affective component represents the emotional component of an attitude. It involves the individual's emotional response, such as liking or disliking, pleasure, or displeasure, towards the object of the attitude (Perry et al. 2022). For example, if you have a positive affective component toward environmental conservation, you might feel happy, proud, or passionate when thinking about it. The behavioural component concerns the behavioural tendencies or intentions linked to the attitude. It includes actions and behaviours directed toward the object of the attitude (Jain 2014). In the context of environmental conservation, your behavioural component might include actions like recycling, reducing waste, or participating in conservation initiatives. Finally, the cognitive component reflects the cognitive or thought-related aspect of an attitude. It includes the beliefs, thoughts, and knowledge associated with the attitudes (Jain 2014). Using the environmental conservation example, your cognitive component might include beliefs about the importance of preserving natural resources and the impact of human activities on the environment.

6.2.2. Interactions Between Components

The three components are interrelated and can influence one another. Changes in one component can lead to changes in the others. For example, a shift in the cognitive component (beliefs) may trigger changes in the affective component (emotional response) and the behavioural component (actions or intentions).

6.2.2.1. Affective-Cognitive Interaction

The affective and cognitive components are closely linked. Cognitive processes, like beliefs and knowledge, can trigger emotional responses when forming an attitude (Schnitzspahn and Phillips 2016). For example, believing in an environmental policy's benefits can lead to a positive emotional attachment to it. Emotions can, in turn, affect cognitive processes, causing selective information

processing, as seen with strong negative emotions toward a political candidate, which can lead to biased information processing.

6.2.2.2. Cognitive-behavioural Interaction

The cognitive and behavioural components are interconnected. Cognitive processes, like beliefs, can shape intentions and actions (Fischer 2017; Audi 2020). Believing in the importance of exercise can lead to the intention to exercise regularly. In reverse, setting goals or making commitments (behavioural intentions) can influence one's beliefs. For instance, deciding to recycle can lead to more positive beliefs about its environmental benefits.

6.2.2.3. Affective-Behavioural Interaction

The affective and behavioural components are linked, where emotions can drive actions, and actions can influence emotions (Zhu and Thagard 2002). Positive emotions toward helping others can lead to pro-social behaviours, such as volunteering. Conversely, engaging in behaviours aligned with one's attitudes can reinforce emotions; for instance, eco-friendly actions can boost positive feelings about environmental conservation.

Understanding these interactions is essential for designing effective interventions and persuasion strategies. For instance, advertisers often aim to create emotionally resonant advertisements (affective) that provide empirical evidence (cognitive) and encourage specific behaviour (behavioural) (Mohd 2022). By recognizing how these components influence each other, we can better predict and influence individuals' attitudes and actions.

In summary, the ABC Model of Attitudes serves as an essential framework for gaining insight into the complex dynamics of attitude formation, persistence, and modification. Highlighting the interplay of emotional, cognitive, and behavioural components underscores the need to consider

all facets when analysing and shaping human attitudes. This model not only provides a structured approach but also offers practical guidance for understanding and influencing the intricate landscape of human behaviour and beliefs.

7. Methodology

The methodology conceived for assessing the impact of dNovo, a non-profit organization helping individuals over 50 in career transitions, includes a multifaceted approach.

At first, extensive research was conducted to explore existing models that could potentially serve in evaluating dNovo's impact (Appendix n°1). Various models were considered, including the Kirkpatrick model (Kirkpatrick Partners 2021), widely recognized in training impact assessment, and the randomized controlled trial (White, Sabarwal, and De Hoop 2014; Bhide, Shah, and Acharya 2018), commonly applied in social intervention studies. However, due to the unique operational structure of dNovo, a more personalised approach felt more appropriate, as these existing models were insufficient for a holistic evaluation.

To gain some structure, a model has been adopted throughout the paper: the ABC – Attitude Model (Jain 2014), a versatile framework employed across various disciplines including marketing, psychology, and social sciences. As explained previously, the ABC Model of Attitudes enables the examination of impacts through three perspectives: Affect (emotions), Behaviours (actions), and Cognition (thoughts) (Jain 2014). It's particularly useful for understanding how dNovo affects its stakeholders, from direct beneficiaries to the wider society.



Figure 2 – Bronfenbrenner's Circle

To facilitate a comprehensive analysis and to reflect the three parts on which a non-profit organization can have an impact, the analysis is divided into three key areas: individual, organizational, and societal. This structure is inspired by Bronfenbrenner's (1979) socio-ecological model, which offers a structured approach to understanding impacts at different levels.

Bronfenbrenner's (1979) ecological model is an exhaustive framework that explains how different environmental systems interact to influence human development and behaviour. This model highlights the importance of considering various interconnected environmental systems, from immediate surroundings like family to broader societal structures like culture, in shaping an individual's development (Bronfenbrenner 1979, 3–42).

In the context of dNovo, the individual dimension is based on Bronfenbrenner's microsystem and concentrates on the direct, immediate effects of dNovo's services on its beneficiaries' personal development and career pathways. Moving to the organizational dimension, it explores dNovo's impact on partner organizations and employees, reflecting Bronfenbrenner's mesosystem and exosystem. Lastly, the societal dimension, aligning with Bronfenbrenner's macrosystem, assesses dNovo's broader impact on society (Bronfenbrenner 1979, 3–42).

Due to time constraints and strategic reasons, no data collection has been made for dNovo, making it currently impossible to detail the methodology of data gathering. However, to measure their impact, dNovo has been recommended to employ a mix of qualitative and quantitative data collection techniques, including tools like surveys and interviews.

In summary, this methodology provides a detailed and accessible toolkit for assessing the varied impacts of dNovo. By applying this dual-model framework, this paper aims to provide a complete understanding of the organization's influence across individual, organizational, and societal spectrums, offering valuable insights for future strategic directions, service improvements and maximising its societal contribution.

8. The Assessment of the Societal Aspect of dNovo

8.1. Introduction: “Why and How to Measure the Societal Impact of dNovo”

To overall assess the impact of dNovo, it is necessary to see in what way dNovo is contributing to the society. Society is defined as an “*enduring social group living in a particular place whose members are mutually interdependent and share political and other institutions, laws and mores, and a common culture*” (APA 2020). This work project exclusively focuses on Portuguese society, aligning with dNovo's specific mission and initiatives within the Portuguese context.

Societal impact, as defined by the Research Council of Finland (2023), involves how research or organizations contribute to societal advancements and address social challenges. This work project treats societal impact and social impact as synonymous, consistent with literature that defines social impact as the direct positive consequences of specific actions on society (Mitchell 2021).

By end of November 2023, dNovo has actively supported 303 individuals in its programs, with 70 successfully reintegrated into the labour market as per the information provided in the dNovo presentation (dNovo Presentation Data 2023, 3). While this figure might be relatively modest for assessing impact on the entire society, the objective is to contextualize and frame dNovo's impact appropriately.

It is essential to note that societal impact is a metric measured over extended time periods. Therefore, the goal of this dissertation is not to comprehensively measure the entirety of dNovo's impact on society, as this would exceed the scope and be impractical due to the time component and potentially insufficient data. Instead, the focus of this dissertation is to construct a comprehensive set of tools and indicators for dNovo, aligning with the needs they have articulated.

This dissertation has a strong focus on the defined affective components of the ABC Model, specifically "Mental Health," "Well-Being," and "Social Inclusion." While directly applying the model to societal impact poses challenges with a small sample size, analogies can help illustrate potential societal value. The tools and indicators associated with Behavioural and Cognitive Components are especially kept for future use in understanding dNovo's impact on Portuguese society. The measurement of societal impact is complex, and the effectiveness of these tools depends on the growth of dNovo over time. The aim is to establish easily measurable indicators, essential for gaining support from government and businesses. Addressing dNovo's concern about partnership challenges, the dissertation sheds light on the societal contributions of these collaborations, aiming to improve communication and better understand the impact of unemployment on the target demographic.

8.2. Zoom in: How to Measure the Societal Impact within the Affective Components

8.2.1. Well-Being Indicators

Various research projects have studied the following indicators: (1) mental health, (2) social inclusion and (3) well-being and how they are influenced by unemployment and vice versa employment (Kasy and Lehner 2023). Firstly, it is important to note, that these cannot be perceived separated from each other, they partially overlap and strongly influence each other. Secondly, at the first glance, these predefined indicators seem like individual impact matters but as the WHO writes, mental health is a condition of mental well-being which influences how we contribute to our community (2022). It strongly impacts the relationships with the social environment, and it often results in social isolation – which means a disruption of the interaction with others (Tulane University 2021). Therefore, mental health is next to personal development, also crucial for socio-economic and community development. The exposure to people's risk of suffering from mental

health conditions increases when they get exposed to unfavorable social, economic, geopolitical, and environmental circumstances, which include poverty, violence, inequality, and environmental deprivation (WHO 2022). Poor mental health, has shown, to have a significant burden on the economy including high costs. Research has shown that the costs will significantly increase up to six-fold within the next 30 years (Doran and Kinchin 2019). Regarding the indicator “well-being”, globally it has become a focal point in policy making and is used to measure the national success (Quick and Abdallah 2015).

Well-being, integral to a thriving society and strong economy, often takes a back seat to traditional measures like GDP. Bhutan, a pioneer in prioritizing happiness through “Gross National Happiness” (GNH), challenges the conventional focus on economic metrics. GNH, influencing Bhutan's policies, utilizes a holistic approach and a unique index that considers socio-economic and unconventional aspects (Gross National Happiness n.d.). This commitment has garnered global attention. Similarly, the OECD's Better Life Index offers a cross-country comparison of well-being, emphasizing the importance of comprehensive indicators beyond economic measures (OECD n.d.). These initiatives highlight a growing recognition of the significance of well-being in shaping policies and fostering societal advancement.

8.2.2. Well-Being Indicators in Relation to (Un)employment

All the above discussed topics, show clearly in what way well-being, mental health and social inclusion are important societal matters and should be considered by governments and policymakers. But the question arises, in what way does that relate to (un)employment? The study, titled “Employing the unemployed of Marienthal”, which evaluated a guaranteed job program in Lower Austria demonstrated that unemployment and some of the formerly discussed indicators (well-being, mental health and social inclusion) correlate (Kasy and Lehner 2023, 2).

Even though guaranteed job programs are mentioned in policy papers a lot, there has not been many measurements of their impact. During this study, impact of this guaranteed job program as well on the participants as on the other people in the same municipality was highlighted (Kasy and Lehner 2023, 2). Significant effects were observed in various dimensions of well-being. These dimensions, identified as the "*latent and manifest benefits*" of work, included important aspects like social contacts, shared purpose, social recognition, and activity. The experimental findings align with existing sociological and psychological research emphasizing the non-economic advantages of employment, such as the "*need to belong*" (Baumeister and Leary 1995) and the "*desire for status*." (Anderson et al. 2015).

8.2.3. Tool Exploration

8.2.3.1. SHARE- Survey of Health, Ageing and Retirement in Europe

As previously discussed in the section addressing the 'problem studied,' European society is undergoing rapid aging, giving rise to many challenges and concerns (UN Population Facts 2020; OECD 2018; OECD The Midcareer Opportunity 2023). As the UN Department of Economics and Social Affairs states, population ageing is and will be one of the major policy concerns. The question arises, if older people will benefit from the general rise regarding life standards (UN 2020). Against the backdrop of these socio-economic challenges, the largest European social science panel study, SHARE, was initiated (Share Home n.d.).

SHARE is a Survey of Health, Ageing and Retirement in Europe, serves as a research infrastructure dedicated to investigating the impacts of health, social, economic, and environmental policies throughout the life course of European citizens and beyond (Share Home n.d.). SHARE-ERIC managing director, Axel Börsch-Supan (2023, Share Socio-Economic Impact), refers that "*the aim is to improve people's quality of life with high-quality research on their health and socioeconomic*

living situations and to help making policy reforms more targeted to the needs of people". In total there were more than 140 000 respondents, and more than half a million interviews taken in 28 countries in Europe and Israel (Share Home n.d.).

8.2.3.2. Guidelines

With the objective of measuring the indicators "Mental Health," "Well-Being," and "Social Inclusion," a specific measurement process for dNovo was developed during this work project. The chosen approach involved selecting eight questions from a scientifically validated questionnaire used in the SHARE study (Survey of Health, Ageing and Retirement in Europe), directly addressing these indicators (Share Home n.d.). Throughout the development process, access to SHARE data was requested and utilized.

The rationale behind this methodology involves two key steps:

1. It enables dNovo to compare its impact by administering the questionnaire at the beginning of a participant's program and after successful reintegration. This allows for a direct observation of the output of their work and the development regarding affective indicators.
2. It allows dNovo to benchmark its impact against calculated national mean values of these specific questions within the wave 6 SHARE data (Börsch-Supan 2022). This contextualization enables a potential estimation of the organization's influence on chosen indicators within the target group in Portugal.

This approach facilitates obtaining concrete insights into the effectiveness of dNovo's interventions and a deeper understanding of their significance for the individuals served. The methodology is intentionally crafted as a comprehensive instrument. Its purpose extends beyond measuring immediate outcomes; rather, it establishes a framework for continuous assessment and ongoing

evaluation of the organization's impact. By tailoring the questionnaire to the unique challenges and goals of those associated with dNovo, this approach aims to offer nuanced insights into their experiences, expanding our understanding of the effectiveness of dNovo's interventions over time.

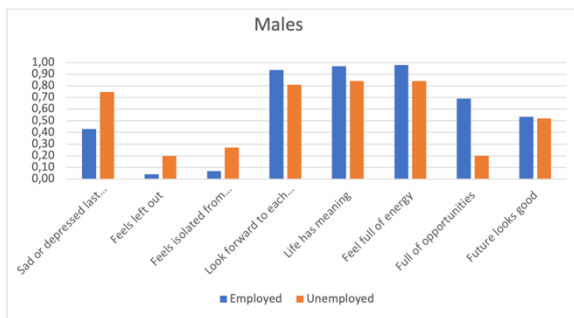
8.2.4. Data Analysis of SHARE Questionnaire Results Wave 6

To achieve optimal outcomes, the decision was made to work with wave 6 (Börsch-Supan 2022) since it includes questions about mental health, social inclusion, and well-being, provides data for Portugal, and predates COVID-19 – which might otherwise have skewed the indicators. The survey with various questionnaires was completed in November 2015 (Börsch-Supan 2022). The data has been analyzed and processed to ensure comparability with future survey results for dNovo. Essentially, a tailored questionnaire for dNovo was created, incorporating selected questions such as *"How often do you feel isolated from others?,"* (Appendix n°4) extracted from the SHARE questionnaire in Wave 6 (Börsch-Supan 2022).

Based on the data from Wave 6 (Börsch-Supan 2022) the following values were computed: There were a total of 1674 participants in the survey of Portugal, of which 746 fall between the ages of 50 and 65. Among them, 334 are either employed or unemployed, with 240 currently employed and 94 individuals not employed. When examining the data split by gender, the unweighted analysis reveals that 26% of males are unemployed, with 108 employed and 38 unemployed. Similarly, for females, the unweighted analysis indicates a 30% unemployment rate, with 132 employed and 56 unemployed. However, it's crucial to note that these percentages are unweighted. If survey weights are considered, the adjusted unemployment rate becomes 26% for males and 22% for females. It's important to note that the limited number of observations regarding unemployed persons in the sample implies that the resulting statistics cannot be considered representative of Portugal and should be treated with some caution. However, the results can serve as a benchmark

and reference point. For simplifying data analysis, response options were recoded to 0 and 1. Answer categories such as "rarely" with "never" and "often" with "sometimes" were consolidated. The analysis of the Stata data, to which SHARE granted me access, reveals significant differences in most responses between unemployed and employed individuals, as indicated by the p-value of a test of equal means between employed and unemployed persons. A p-value below 0.05 is considered significant (Boston University 2019). Results show that all but two sample means significantly differ between unemployed and employed. Exceptions are observed for the statement "look forward to each day" with a p-value of 0.32 and for the statement "future looks good" with a p-value of 0.51. It would be interesting to see if the data gathered by dNovo also reveal that the mean values do not differ with respect to these two dimensions, or whether the intervention by dNovo generates a positive improvement.

As we can see in the figure 2 and 3 below, there are significant differences between women and men. To some extent, this could also be attributed to differences in the number of observations. Nevertheless, it is an interesting observation that could be compared with a survey at dNovo. For example, for unemployed men, the calculated mean value in the variable "Feel Full of Energy" is 84%, while for unemployed women, it is 65%. The trend of the results broadly aligns with findings in international literature (Kasy and Lehner 2023). Therefore, a significant improvement in the



following variables should be expected after the dNovo program.

Figure 3 – Illustration of the computed mean values for female Portuguese participants, comparing responses to selected questions from Questionnaire Wave 6 (Börsch-Supan 2022) between unemployed and employed individuals.

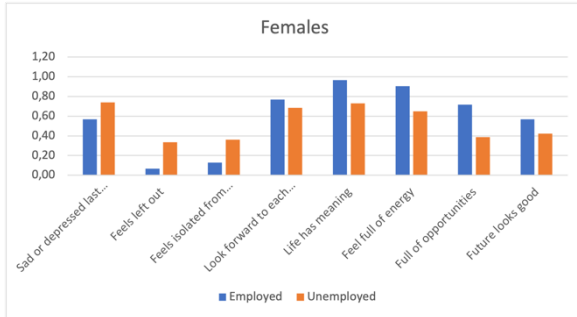


Figure 4 – Illustration of the computed mean values for female Portuguese participants, comparing responses to selected questions from Questionnaire Wave 6 (Börsch-Supan 2022) between unemployed and employed individuals.

8.3. Zoom in: How to Measure the Societal Impact within the Behavioural Components

8.3.1. KPI's as Societal Impact Indicators

The Behavioral Components concern the behavioural tendencies or intentions – which are also described as actions. The interpretation of the ABC model and the behavioural indicators regarding the societal impact of dNovo include a model based on two steps. In the first step, actions towards a societal impact of dNovo can be seen as identifying their Key Performance Indicators (KPI's) and see how to measure them and in the following step set them somehow into a societal context. KPI's are *“a set of measures focusing on those aspects of organizational performance that are the most critical for the current and future success of the organization”* (Parmenter 2010, 4). Another characterization is that they have a significant positive impact (Parmenter 2010, 9). Key Performance Indicators (KPIs) are concrete, measurable data points crucial for NGOs to assess effectiveness and efficiency. Aligned with the mission, they offer a snapshot of organizational performance, prompting necessary actions. In the dynamic NGO landscape, KPIs serve as essential data sources, leading adaptation to change. Their simplicity, quantifiability, and regular use support informed decision-making. The key is selecting relevant indicators aligned with organizational goals, ensuring transparency for donors. NGOs leverage KPIs not only to measure success but also to attract donors, increase funding, execute projects, and fulfill their mission. In this case key performance indicators and societal impact are strongly connected. Because dNovo's mission is

directed towards a change in society, they address challenges in regarding the societal problem of unemployed highly qualified Individuals over 50 years old (dNovo 2023).

The three defined indicators, namely the employment rate of dNovo, the employee retention rate, and the average duration of unemployment, should be considered as a prospective foundational framework for indicators. However, at this stage in the work project, they may not make sense, as these indicators require longer-term measurement and growing numbers of dNovo to be meaningful. Therefore, in this context, creating a toolkit may not be practical. Instead, our focus is on specifying the key indicators.

8.3.2. Indicator: Employment Rate

Employment rate serves as a metric to assess the utilization of available labor resources, indicating the proportion of the employed population in relation to the working age population. This ratio is determined by considering those who are at least 15 years old and worked for pay for at least an hour the week prior or held a job but missed work during the reference week (OECD 2023). People in the working age group range in age from 15 to 64. The economic cycle has an impact on these rates, and over time, they are notably influenced by governmental policies pertaining to higher education, financial assistance, and programs aimed at enhancing the employment opportunities for women and marginalized groups. (OECD 2023).

In the case of dNovo's societal impact analysis, evaluating the employment rate of the targeted group after their engagement with dNovo could help assess the organization's effectiveness in reintegrating qualified senior professionals into paid work, providing a tangible measure of its impact on the individuals it serves.

8.3.3. Indicator: Employee Retention Rate

Employee retention rate is the percentage of employees who remain with an organization over a specific period, serving as the inverse of the employee turnover rate. It is a crucial metric that reflects the company's ability to retain its workforce, highlighting the stability and commitment of employees to their roles and the organization (Deanna 2023). The calculation involves determining the number of employees who stayed employed throughout the chosen timeframe and dividing it by the initial headcount on the first day of that period (Deanna 2023).

In the context of dNovo's societal impact analysis, assessing the employee retention rate could provide valuable insights about the organization's effectiveness in helping this specific segment of professionals to stay employed and committed to their new careers.

8.3.4. Indicator: Average Duration of Unemployment

The average duration of unemployment is a measure that calculates the average length of time individuals spend being unemployed (Corak and Heisz 1996).

The average duration of unemployment, in the context of dNovo, refers to the average length of time that individuals supported by dNovo remain unemployed before securing a new paid job. It measures the effectiveness of dNovo's programs and support in facilitating the transition of unemployed professionals aged 50 and over to new career opportunities.

8.4. Zoom in: How to Measure the Societal Impact within the Cognitive Components

8.4.1. Ageism as a Societal Impact Indicator

During the significant engagement with dNovo, and during the following discussions, the term 'ageism' has been repeatedly mentioned. The Organization identifies the widespread attitudes towards older individuals as one of its main challenges in the reintegration of job seekers (dNovo Presentation New Data 2021, 9). Ageism includes various dimensions and constructs – Kang

describes it as "*stereotypes, prejudices, and discriminatory actions or attitudes that are based on one's chronological age*" (2020). Negative attitudes and stereotypes toward older adults are commonly observed, as indicated by research conducted by North and Fiske in 2015. Research has shown that in workplaces, there is often an atmosphere where people unfairly judge and treat older workers based on untrue beliefs. These potentially false ideas include thinking that older workers lack motivation, are not as alert, productive, flexible, or willing to learn, and may have health and technology-related limitations. These stereotypes create a climate of discrimination against older workers in organizations. Essentially, negative, and inaccurate views about older employees contribute to an environment where unfair treatment based on age is common (NG, Feldman 2012; Wood et al. 2008; Dordoni, Argentero 2015).

When Butler describes ageism as a "*process of systematic discrimination and stereotypes based on age*" (1969, 22), he might be highlighting the repetitive nature of this phenomenon within a society. The term "systematic" implies that ageism is not just an isolated occurrence but rather a pervasive and ingrained aspect of societal attitudes and structures. This suggests that discriminatory practices and stereotypical beliefs about age may be embedded in various institutions, policies, and cultural norms.

By emphasizing the systematic nature of ageism, Butler spotlights the need to address it not only as individual prejudices but as a broader societal issue that requires structural changes and a shift in collective attitudes (1969). This aligns with the idea that ageism is not only the result of personal biases but can be reinforced by systemic factors like media representation, employment practices, and social policies.

For this reason, ageism has been chosen as an indicator for societal impact within the cognitive components. The cognitive components describe the thoughts and beliefs associated with an

attitude. When applied to this ABC model, ageism becomes a societal attitude that may be transformed through dNovo's initiatives and work, thereby influencing society. dNovo aims to actively fight the phenomenon of ageism in society, addressing it through direct engagement with partner companies and educational outreach efforts.

8.4.2. Tool Exploration

A more thorough examination of the literature on ageism and associated scales for measuring ageism clearly indicates that the majority focuses on the perception of younger individuals. (Kang 2022; Kang 2020) There is a significant emphasis on understanding what younger people think about older individuals, while some scholarly papers suggest shifting the focus to include both self-perception and the general perception of ageism by older individuals (Kang 2022, 1).

In the literature review, various existing scales were examined, assessing their strengths, limitations, and applicability in English-language research literature (Kang 2022). These scales serve various purposes, from measuring general attitudes toward older individuals to evaluating specific aspects like knowledge about aging and discriminatory behaviours. Notable scales include the Tuckman and Lorge questionnaire, which explores misconceptions about older adults (1953) and the Aging Semantic Differential (Rosencranz and McNevin 1969), which measures factors like acceptability, competence, and autonomy. The Fraboni Scale of Ageism assesses attitudinal beliefs, avoidance, and discrimination (Fraboni et al.1990) Additionally, the Ambivalent Ageism Scale captures both hostile and benevolent ageism (Cary et al. 2017) These diverse scales contribute to a nuanced understanding of age-related attitudes and discrimination offering valuable tools for researchers and practitioners in the field.

In the assessment of various scales, the Nordic Age Discrimination Scale (NADS) stands out as a valuable tool for dNovo. What distinguishes NADS is its thorough evaluation, not exclusively focused on the perceptions of younger or older individuals but encompassing how people within a certain context perceive age discrimination. Moreover, its adaptability has been demonstrated through a successful application in a Spanish context, as discussed in the paper “Measuring Age Discrimination at Work: Spanish Adaptation and Preliminary Validation of the Nordic Age Discrimination Scale (NADS)” (Carral and Alcover 2019). This adaptability positions NADS as a robust instrument for dNovo's initiatives, allowing for an attempt of understanding of age-related attitudes in diverse organizational settings. This survey comprises six items (a) promotion, (b) training, (c) development, (d) development appraisals, (e) wage increases, and (f) change processes. Respondents use a five-point scale, where 1 = totally disagree and 5 = totally agree (Appendix n°23). dNovo can provide this scientifically validated survey to partner companies for periodic assessments, measuring changes in age discrimination. This approach aims to assess dNovo's impact on age discrimination and ageism within this framework, with the potential to influence Portuguese society as successful reintegration numbers grow. Future steps involve comparing dNovo's dataset with other NADS adaptations (Appendix n°24) considering variations in target groups, socio-cultural contexts, and language.

8.5. Societal Impact and Alignment with Sustainable Development Goals: Connecting dNovo's Work to SDGs 8, 10, and 3

The 2030 Agenda for Sustainable Development, adopted globally in 2015, encompasses 17 Sustainable Development Goals (SDGs) addressing poverty, health, education, inequality, economic growth, climate change, and environmental preservation (United Nations n.d). dNovo's initiatives closely align with three key SDGs: Goal 8 (Decent Work and Economic Growth), Goal

10 (Reduced Inequalities), and Goal 3 (Good Health and Well-being). These connections highlight dNovo's significant societal impact within the broader global sustainable development agenda.

8.5.1. Goal 8: Decent Work and Economic Growth

dNovo's focus on reintegrating unemployed individuals over 50, directly contributes to SDG 8 by promoting decent work and sustainable economic growth. The employment rate indicator aligns with SDG 8's emphasis on inclusive economic growth (United Nations n.d).

8.5.2. Goal 10: Reduced Inequalities

Addressing age-related discrimination and challenges in the job market, dNovo actively reduces inequalities, aligning with SDG 10. Well-being indicators emphasize the organization's commitment to addressing societal disparities (United Nations n.d).

8.5.3. Goal 3: Good Health and Well-being

dNovo's well-being indicators, including mental health and overall well-being, align with SDG 3's focus on ensuring healthy lives and promoting well-being for all ages (United Nations n.d).

In summary, dNovo's targeted approach aligns with the SDGs, contributing to global efforts for sustainable development outlined by the United Nations.

9.1. Conclusion of the Societal Part

In conclusion, this work project has undertaken a comprehensive exploration of the societal impact of dNovo, a program dedicated to reintegrating unemployed highly qualified individuals over 50 into the labour market in Portugal. The aim of this work project was to develop a toolkit and indicators for dNovo to measure future societal impact. A strong focus of this dissertation was on the affective component analysis focused on mental health, well-being, and social inclusion,

recognizing their integral role in measuring societal impact. By aligning with the SHARE study and constructing a tailored questionnaire, this study aimed to quantify and contextualize the impact of dNovo's interventions on participants.

The behavioural component investigation introduced Key Performance Indicators (KPIs), with a spotlight on the employment rate, employee retention rate, and average duration of unemployment. These metrics served as concrete indicators, potentially offering insights into dNovo's effectiveness in facilitating the reintegration of participants into the workforce.

Exploring ageism within the cognitive components recognized the pervasive societal attitudes toward older individuals. The Nordic Age Discrimination Scale (NADS) emerged as a valuable tool, enabling a comprehensive assessment of age-related attitudes and discrimination within diverse organizational settings.

The study revealed that dNovo's initiatives align significantly with Sustainable Development Goals (SDGs) 8, 10, and 3. The program's focus on reintegrating older individuals contributes to the promotion of decent work, reduction of inequalities, and enhancement of health and well-being, aligning seamlessly with the global sustainability agenda.

In essence, this dissertation contributes an understanding of dNovo's societal impact, providing practical tools and indicators for measurement. By addressing age-related challenges and inequalities, dNovo emerges as a valuable contributor to Portugal's societal well-being, echoing the broader global agenda outlined in the SDGs. As dNovo continues to evolve, this research lays the groundwork for future assessments, fostering an informed and data-driven approach to societal impact measurement.

10. Results

This section of the work project presents the results of the assessment tools and indicators which can be used by dNovo to assess its impact. These results are segmented into three key impact areas: individual, organizational, and societal impact. Each impact area is divided into three main components: affective, behavioural, and cognitive. These assessment tools and indicators have been selected for their relevance and efficiency in measuring the targeted outcomes.

Concerning the individual impact of dNovo, multiple tools and indicators have been found for each component.

Starting with the tools to assess the impact of dNovo on the emotional well-being of its beneficiaries: the affective component. This includes measuring shifts in positive and negative affective states, overall happiness, and mental health before and after their involvement with the company. Tools suggested for this purpose are the Positive and Negative Affect Scale (PANAS) by Watson, Clark, and Tellegen (1988), which serves as an effective tool to measure positive and negative changes in the affective states of beneficiaries. This is particularly relevant for dNovo, as the emotional states of senior professionals are key in understanding their overall well-being. Similarly, the Subjective Happiness Scale (SHS) by Lyubomirsky and Lepper (1999) provides insights into the subjective happiness levels of participants, which adds insights for measuring the impact of dNovo's initiatives on their overall well-being.

Furthermore, the Personal Well-Being Index (PWI) developed by Cummins (2013) and the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) by Tennant et al. (2007) will assess the emotional and mental well-being of participants. These scales are used to understand the broader impact of dNovo on their beneficiaries' lives, beyond mere professional aspects. The

Global Measure of Perceived Stress (GMPS), by Cohen et al. (1983) and the Depression Anxiety Stress Scales (DASS-10) by Halford and Frost (2021) further contribute to this understanding by quantifying levels of stress, anxiety, and depression, key indicators of mental health crucial for seniors re-entering the workforce.

In addition to these scales, dNovo is advised to use surveys, which are widely employed in social, and psychological research (Ponto, 2015). They facilitate the collection of in-depth information from beneficiaries. Indeed, surveys, particularly questionnaires and interviews, are key instruments to capture personal experiences and feedback (Ponto, 2015). Questionnaires, on the one hand, help to gather structured data from both closed and short open-ended questions (Hassan 2023; Ponto, 2015). Interviews, on the other hand, provide in-depth qualitative insights, allowing for a comprehensive understanding of participants' experiences and opinions (DiCicco-Bloom and Crabtree 2006; Bolderston 2012). Together, these methods can offer, if well used, a holistic view of dNovo's impact on beneficiary well-being, addressing various aspects of well-being. Additionally, the combination of these methods might allow dNovo to accurately evaluate their effectiveness and make informed improvements.

The behavioural component assesses changes in the actions and behaviours of dNovo's participants, particularly in their job-seeking strategies and engagement in program services. The Self-Monitoring and Tracking Tool, discussed by Rou (2023), is a key technique in this regard. This method provides insights into the efficacy of dNovo's programs, enables the organization to tailor its interventions based on real-time participant feedback and empowers beneficiaries to be proactive and reflective about their engagement and progress. The utilization of digital tools like Google Sheets and Forms is suggested for efficient data collection and analysis, ensuring a dynamic and responsive approach to behavioural assessment. This aligns with best practices in data

visualization and analysis, allowing for a structured analysis of behavioural patterns (Rou 2023; Barilla 2023).

The cognitive component, focused on the mental processes and cognitions of participants, is advised to be evaluated with an indicator and a tool. Pre- and post-training evaluations, as highlighted by Mann (1996), are instrumental in measuring the impact of training on beneficiaries' skills and knowledge. These evaluations provide a clear understanding of the cognitive impact of dNovo's training programs. Additionally, using a dNovo-specific Self-Efficacy Scale and the Generalized Self-Efficacy Scale, by Schwarzer, Jerusalem, and Johnston (1995), offer a powerful tool to measure the impact of dNovo on beneficiaries' self-efficacy, which is an essential factor in their successful reintegration into the workforce.

Regarding the organisational part, three main tools summarise this section, starting with the survey tool.

In-depth interviews and online surveys were recommended for evaluating the affective component of stakeholders' and employees' attitudes. In-depth interviews were highlighted for fostering personal connections and obtaining detailed, open responses (DiCicco-Bloom and Crabtree 2006). Online surveys were considered a cost-effective alternative, providing rapid transmission and access to a broader population (Story and Tait 2019). The effectiveness of surveys, however, depended on factors such as survey duration (Chudoba 2023), question types (Story and Tait 2019), and timing (Rodgers 2021). For dNovo, in-depth interviews were suggested as a suitable method for understanding stakeholders' and employees' emotional connections and perceptions, although online surveys remained a viable option, especially when time and resources were constrained.

The stakeholder's impact report emerged as a crucial tool for assessing the behavioural component. Impact reports were identified as powerful documents to communicate the social, environmental, or economic consequences of dNovo's activities (Peretz 2023). The advantages of impact reporting included strengthening trust, enhancing public perception, facilitating stakeholder engagement, guiding continuous improvement, and serving as a marketing advantage (Ecolytics Team 2023). For dNovo, an impact report was deemed essential to showcase the societal impact of their programs, attract potential collaborators, and communicate their commitment to positive change in the field of employment for individuals over 50.

The focus group tool was recommended for assessing the cognitive component of stakeholders' and employees' attitudes. Focus groups, distinct from traditional group interviews, were lauded for their dynamic and insightful nature, tapping into collective dialogue to uncover diverse perspectives. The methodology involved assembling 4 to 8 participants to discuss predetermined topics guided by a moderator (Kitzinger, Markova, and Kalampalikis 2004). Focus groups were found to efficiently provide substantial information in a condensed timeframe, making them valuable for exploring consensus levels, navigating power differentials, and delving into cultural nuances (Gibbs 2023). In the context of dNovo, focus groups were identified as a vital mechanism for comprehending stakeholder and employee perspectives, fostering a nuanced understanding of shared values and objectives.

Concerning the societal part, after an extensive literature review and the creation of an impact assessment toolkit that considered affective, behavioural, and cognitive components this paper further embedded the toolkit within the framework of Sustainable Development Goals (SDGs) 8, 10, and 3. This paper prioritized affective components, emphasizing mental health, well-being, and social inclusion as crucial indicators of societal impact. Insights from the well-established SHARE

study (Share Eric 2023) provided a foundation for constructing a questionnaire tailored to measure dNovo's impact on participants' well-being and mental health. Well-being, often overlooked in traditional economic measurements, is here highlighted as an important aspect of societal progress.

Concerning behavioural components, Key Performance Indicators (KPIs) were introduced to quantify dNovo's impact on societal behaviour. Employment rate, employee retention rate, and average duration of unemployment were identified as pertinent KPIs, offering tangible metrics for assessing dNovo's effectiveness in reintegrating participants into the workforce.

The study explored ageism as a societal impact indicator within cognitive components, recognizing pervasive societal attitudes toward older individuals. The Nordic Age Discrimination Scale (NADS) (Carral, Alcover 2019), emerged as a valuable tool for assessing age-related attitudes, providing dNovo with a comprehensive instrument to measure changes in age discrimination within diverse organizational settings.

It was found that dNovo significantly contributes to the United Nations Sustainable Development Goals (SDGs) in several key areas. The organization's commitment to reintegrating older individuals into the workforce directly supports SDG 8, promoting decent work and sustainable economic growth. Additionally, by addressing age-related inequalities and combatting ageism, dNovo serves as a catalyst for achieving SDG 10, contributing to the goal of reducing inequalities. The organization's holistic approach, which includes considerations for mental health and overall well-being, actively contributes to SDG 3's objective of ensuring healthy lives and promoting well-being for people of all ages (United Nations n.d.).

This part of the dissertation provides a measurement tool kit for assessing dNovo's societal impact, offering practical tools for ongoing evaluation and highlighting its alignment with global

sustainability goals. By addressing age-related challenges and inequalities, dNovo could be seen as a valuable contributor to Portugal's societal well-being, echoing the broader global agenda outlined in the SDGs.

11. Limitations of the Model and Critical Reflection

This section discusses the limitations associated with the impact assessment model created for dNovo. While the model aims to provide a toolkit for assessing impact across various dimensions, several inherent limitations must be considered. Presenting limitations in a study is crucial for contextualizing research findings, assessing the validity of scientific work, and assigning credibility to conclusions (Ross and Bibler 2019). Beyond enumerating errors and validity issues, it involves elucidating weaknesses within the study that may impact outcomes, thereby providing valuable information for readers to interpret the research's overall significance and reliability (Ioannidis 2007).

Firstly, the foremost limitation of the developed model lies in the absence of empirical validation. Due to time constraints, the model has not undergone a data run, leaving its efficacy unproven. Without empirical evidence, it cannot be asserted with certainty that the model aligns perfectly with the unique needs and dynamics of dNovo.

Secondly, the tools incorporated into the toolkit, such as the various scales, interviews, questionnaires, self-monitoring and tracking tool, online surveys and focus groups, heavily rely on the collaboration of external stakeholders, including dNovo's beneficiaries or partners. In the event of low participation, the effectiveness of these tools may be compromised, leading to incomplete and potentially biased data (Faber and Martins Fonseca 2014).

Thirdly, some tools and indicators, like the different scales, rely on self-reported data, which can be subject to biases such as social desirability or recall bias. Participants may portray themselves in a more favourable light or may not accurately remember past events or feelings. This bias can lead to over- or underestimation of the impact of dNovo's interventions (Rosenman, Tennekoon, and Hill 2011).

Furthermore, the model was developed without adhering to specific resource considerations such as time constraints or qualified employees. For example, focus groups and in-depth interviews require someone qualified to interview people concerned to avoid interviewer bias (Salazar 1990). Another example is that creating, administering, and analysing pre- and post-training evaluations can be resource and time-intensive. The absence of these resources may hinder the implementation and success of these tools, potentially limiting their practicality for dNovo.

Additionally, certain tools, including impact reports, require specific data sets that may not be readily available or calculable by dNovo. The lack of essential data poses a significant constraint, perhaps rendering these tools ineffective in the absence of the requisite information.

Another limitation arises from the use of digital tools such as Google Forms and Sheets for data collection and analysis in dNovo. This approach presupposes technological access and literacy, potentially introducing bias if these conditions are not uniformly met across the organization.

The toolkit developed to assess the societal impact of dNovo faces some noteworthy limitations that need special acknowledgement. Firstly, evaluating societal impact is inherently challenging, particularly given the limited observations resulting from dNovo's current successful reintegration into the job market. It is essential to recognize that the ABC Model reaches its constraints in this

context. While efforts were made to align it with societal impact and draw analogies, it is believed to be more suitable for individual and organizational impact assessments.

Another limitation to consider is the restricted feasibility of comparison or contextualization. For Affective Components (Mental Health, Well-Being, and Social Inclusion), an approach was developed and compared with the European SHARE Study (Share Eric n.d.). In this process, mean values were computed for selected questions in Portugal. However, for simplicity, response options had to be recorded or summarized. This method enhances comparability but may also introduce the risk of result distortion or a less nuanced representation of responses. Additionally, it is essential to note that the observation count within the SHARE Study for the target group remains relatively low. Therefore, any conclusions drawn should not indiscriminately be applied to the entire Portuguese society but rather viewed as indicative. Concerning the Behavioural Components, a limitation arises from the extended time required to measure the proposed indicators, making them currently impractical as tools but still viable for ongoing observation. Regarding Ageism and the suggested benchmark scale NADS (Carral and Alcover 2019), adapting it to the Portuguese context necessitates careful consideration of the respondents, their numbers, and the need to embed the results within sociocultural and economic contexts.

Finally, it needs to be mentioned that the entire toolkit including all three areas includes a diverse range of tools targeting individual, organizational, and societal dimensions. This extensive toolkit may overwhelm dNovo professionals, making it challenging for them to understand where to initiate the assessment process or which tools are most important to their specific needs.

In conclusion, while the impact assessment model offers a robust framework for evaluating the impact of dNovo's initiatives, these limitations underscore the need for caution and further

refinement. Taking these limitations into account can contribute to a more effective impact assessment process that is better suited to dNovo.

12. Conclusion

This work project generally tackles the societal challenge of unemployment among highly educated individuals over 50 in Portugal, focusing on the non-profit organization dNovo. The research aimed to develop an impact assessment model to measure and enhance dNovo's effectiveness in addressing this pressing societal issue.

The challenge dNovo seeks to contribute to is deeply rooted in the ageing societal dynamics and the complexities of modern employment trends. As populations age and technological advancements shift the nature of work, older and highly qualified individuals face unprecedented challenges in re-entering the workforce.

In developing an impact assessment model, this dissertation employed the ABC – Attitude Model, which provides a structured approach to understanding the diverse impacts of dNovo's interventions. This model is key in evaluating the organization's influence across individual, organizational, and societal levels. By integrating various tools and indicators, the research offers a detailed toolkit for assessing dNovo's impact.

The individual impact assessment evaluates the effects of dNovo on the beneficiaries' emotional well-being, using a range of scales and surveys. This assessment also monitors changes in beneficiaries' job-seeking strategies and service attendance and participation by using an advanced self-monitoring and tracking tool. Furthermore, it measures the shift in beneficiaries' knowledge, skills, and professional self-efficacy, employing evaluation methods and self-efficacy scales.

The organizational impact is evaluated through surveys, impact reports, and focus groups, aiming to build credibility and improve relations with stakeholders and employees, strengthening trust and efficiency within the company itself.

On a societal level, the paper emphasizes dNovo's influence on affective indicators such as social inclusion, well-being, and mental health, providing a framework for contextualizing these impacts within society. Concerning the behavioural components, it proposes indicators that could be structured as Key Performance Indicators (KPIs) for the organization, facilitating the measurement of its future societal impact. Additionally, the paper recommends adapting the NADS ageism scale to the context of dNovo as the cognitive component. Moreover, it sheds light on the contribution to key Sustainable Development Goals, particularly in promoting decent work, reducing inequalities, and fostering well-being among older individuals.

However, this research also acknowledges the limitations of the developed impact assessment model, including its reliance on stakeholder participation, potential biases in self-reported data, and the challenges of accurately measuring societal impacts. These limitations underline the need for continuous refinement and adaptation of the model to ensure its relevance and effectiveness throughout time.

In conclusion, this work project highlights the critical role of organizations like dNovo in addressing the challenges of qualified senior unemployment. By providing a toolkit for evaluating their impact, it will empower them to enhance their effectiveness for an even broader impact. Additionally, dNovo will have powerful evidence to attract potential beneficiaries who perceive the tangible benefits offered by the organization. Moreover, this framework provides convincing proof for prospective funders and donors, demonstrating dNovo as a valuable investment. It provides the organization with solid arguments and verified outcomes to present to potential

collaborative partners and future employees. Additionally, dNovo has further tools to build a closer relationship with its stakeholders and employees. Critically, the empirical evaluation of dNovo's impact provides the organization with the credibility necessary to engage constructively with governmental entities.

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14. Appendices

14.1. Appendix 1 – Assessing the impact of training and social interventions: models.

Impact models

What does the model assess?	Name of the model	Name of the creator and date of creation	Main Characteristics
Training	Kirkpatrick model	DR. Donald L. Kirkpatrick in 1959	<u>4 levels</u> : Reaction, Learning, Behaviour and Results.
	Philips ROI methodology	Jack J. Philips in the early 2000s	<u>5 levels</u> : Reaction, Learning, Behaviour, Results, and Return on Investment
	Summative and formative evaluation	No specific creator	Summative evaluation measures the final impact; Formative evaluation guides continuous improvements
	Kaufman's five Levels of Evaluation	Roger Kaufman in 1994	<u>6 levels</u> : Input, Process, Acquisition, Application, Organizational Payoffs and Societal Outcomes

Social interventions	Randomized Controlled Trial	No specific creator	Individuals are randomly assigned to two different groups—one that receives the studied intervention and the other that receives a control or placebo
	Logic Models	No specific creator	<u>5 categories</u> : Inputs, Activities, Outputs, Outcomes, and Impacts
	Social Return on Investment	No specific creator	<u>5 steps</u> : Identify Stakeholders, Map Outcomes, Value Outcomes, Calculate SROI and Communicate Results

Training

- i. Kirkpatrick model

DR. Donald L. Kirkpatrick in 1959 created Kirkpatrick's model, an assessment model for training. It works by assessing training based on four main levels (Suk 2023; Kirkpatrick Partners 2021; Lucidchart 2019). Over the years, this approach has become the gold standard for showcasing the effectiveness of training programs. It applies in all sectors and to all programs and is simple to use (Kirkpatrick Partners 2021; Lucidchart 2019).

The 4 levels:

1. Level 1: **Reaction**: How alumni find the training they are following favourable, captivating, and pertinent to their jobs (Kirkpatrick Partners 2021). This knowledge can be collected through surveys, feedback forms, or metrics such as attendance rate and participation rate (Lucidchart 2019; Neendoor 2023).
2. Level 2: **Learning**: How alumni gain new knowledge, skills, attitudes, confidence, and commitment through the training (Kirkpatrick Partners 2021). This information can be gathered through tests, skills-based evaluations, or quizzes conducted in each case before and after the training to see the evolution (Neendoor 2023; Lucidchart 2019).
3. Level 3: **Behaviour**: How alumni use their new knowledge and skills in their new jobs (Kirkpatrick Partners 2021). Interviews, self-assessment forms, supervisors' observations, and possibilities for the alumni to put into practice what they learned, are ways to find out if they do use their new knowledge (Lucidchart 2019; Neendoor 2023).
4. Level 4: **Results**: How the behavioural changes of alumni influenced the company and if the investment in training was profitable to the company (Lucidchart 2019).
 - ii. Philips ROI methodology

The Jack Philips ROI model is one such training framework that helps analyse the success of learning and development programs (Roy 2021). During the early 2000s, Jack J. Philips introduced a new model which is an augmentation to the Kirkpatrick model, encompassing a fifth level focused on Return on Investment (ROI) (Herrholtz 2020).

The 5 levels:

The first four levels are the same as those in the previously mentioned Kirkpatrick model. Therefore, we will only explain the additional fifth level of the Philips ROI Methodology.

Level 5: **Return on Investment:** The fifth level aims to conduct a “cost-benefit analysis”, assessing the usefulness of the training programs in achieving desired outcomes (Roy 2021).

Calculation: $ROI = (Total\ Program\ Benefits - Total\ Program\ Costs) / Total\ Program\ Costs \times 100\%$ (Herrholtz 2020).

In a nutshell, the ROI model helps organizations measure if the amount of money and resources they dedicate towards employee development have produced measurable returns or not.

iii. Summative and formative evaluation

A third method to assess the impact of training is through summative and formative evaluation, which lacks a specific creator or creation date, as it represents a common approach to assessing learning impact, as seen in educational settings. Nevertheless, it remains an effective method for measuring impact. Summative evaluation measures the final impact of training using reports, presentations, tests, examinations, and projects to measure the knowledge acquired by the employees after completing their training, while formative evaluation guides continuous improvements, ensuring training effectiveness and relevance using games, quizzes, assessments,

and instructor observation (Suk 2023). Hence, using both methods ensures a well-rounded assessment.

iv. Kaufman's Five Levels of Evaluation

Roger Kaufman in 1994 created Kaufman's model, a learning evaluation framework developed based on the Kirkpatrick Model (Deller 2021). Kaufman incorporated a fifth level into his model, considering societal impacts. Additionally, he subdivided Kirkpatrick's level 1 into "input" and "process" (Hays 2021).

The 5 levels:

1. a. **Input:** Present the supplies used during the learning program.
- b. **Process:** Describe how the learning program is implemented.

Micro-level: The learner.

2. **Acquisition:** Assess if the learners have gained new knowledge through the learning program.
3. **Application:** Measure if the learners have applied the instructed knowledge in their work.

Macro-level: The organization.

4. **Organizational payoffs:** Evaluate the organizational impact of the learning.

Macro-level: The society.

5. **Societal outcomes:** Assess the influence of the learning on the company's clients or the broader society.

(Hays 2021; Deller 2021)

Social intervention

i. Randomized Controlled Trials (RCTs)

In randomized controlled trials (RCTs), individuals are randomly assigned to two different groups—one that receives the studied intervention and the other that receives a control or placebo (White, Sabarwal, and De Hoop 2014; Bhide, Shah, and Acharya 2018). By comparing the outcomes across these groups, this model establishes a cause-and-effect relationship between an intervention and its outcomes, providing high-quality evidence about the impact of the intervention on its participants (Bhide, Shah, and Acharya 2018; Hariton and Locascio 2018). Indeed, RCTs ensure that observed outcomes are solely a result of the intervention, enhancing confidence in impact attribution (White, Sabarwal, and De Hoop 2014).

ii. Logic Models

Logic models serve as visual representations outlining the interconnections between program inputs, activities, outputs, outcomes, and impacts. They play a crucial role in articulating program goals, facilitating communication, and guiding the design, implementation, and evaluation of programs. By offering a systematic framework, logic models aid evaluators in identifying, measuring, and improving program elements, ensuring clarity and coherence in program planning (Eval Community 2023).

The 5 categories:

1. **Inputs:** The assets allocated to the program (human and material).
2. **Activities:** The distinct activities implemented by the program to attain its goals.
3. **Outputs:** The direct outputs arising from the program's actions, including metrics.

4. **Outcomes:** Short-term, intermediate, or long-term changes emerging from the program's outputs, which may involve shifts in knowledge, behaviour, or attitudes.
5. **Impacts:** The more extensive transformations resulting from the program's outputs, which are frequently challenging to quantify.

(Eval Community 2023)

iii. Social Return on Investment (SROI)

Social Return on Investment (SROI) measures and values the broad impact of projects, policies, or programs, considering social, environmental, and economic outcomes. It calculates the efficiency of investments in generating social value by assigning monetary values to these outcomes, thus providing a more comprehensive understanding of the value created by an investment beyond financial returns (Nicholls et al. 2012).

The 6 steps:

1. **Define scope and identify stakeholders:** Determine the analysis's scope and involve relevant parties.
2. **Map outcomes:** Collaborate with stakeholders to create an impact map linking inputs, outputs, and outcomes.
3. **Evidence and value outcomes:** Collect data to demonstrate outcomes and assign values to them.
4. **Establish impact:** After evaluating outcomes, exclude changes that would have occurred regardless or due to external factors.
5. **Calculate SROI:** Add up the benefits, subtract any negatives, and weigh them against the investment.

6. **Report and implement:** Share findings with stakeholders, incorporate feedback, and ensure good outcome processes and report verification.

(Nicholls et al. 2012)

14.2. Appendix 2: Benchmarking on other institutions that are similar across the world

Table

Name	Location	Type	Description	Means
dNovo	Portugal	Non-profit organization	Intervene further in the promotion of qualified senior professional activity (dNovo presentation 2023)	<ul style="list-style-type: none"> - A senior mentoring program - Access to a network of partners - Events and networking

				<ul style="list-style-type: none"> - Provision of a digital platform
Wisconsin Senior Employment program (WISE)	Wisconsin (US)	Program	Provide employment training program for low-income, unemployed individuals aged 55 years and older (“Wisconsin Senior Employment Program (WISE)” 2014)	<ul style="list-style-type: none"> - Subsidizes - Part-time work experience - Trainings
Experience Unlimited	California (US)	Program	Help to shorten your search for the right job (“Experience Unlimited” 2023)	<ul style="list-style-type: none"> - Workshops on job search, resume and interview techniques - Provide office space,

				<p>personal computers, access to the internet, use of fax machines</p>
Workforce50	New Hampshire (US)	Website	<p>Advertise vacancies aimed at older job seekers and late-career professionals in a variety of industries, including sales, healthcare, engineering, and more (Lottering 2023) (WorkForce50 2023)</p>	<ul style="list-style-type: none"> - Provide jobs and information to help navigate your job search or a search for a new direction - Search jobs by location or with one of our

				favourite employers
AARP	US	Non-profit and nonpartisan organization	Dedicate to empowering Americans 50 and older to choose how they live as they age (AARP 2023) (Powdar 2022)	- The Employer Pledge
55/Redefined	UK	Organization	Help individuals and organizations think differently and see the opportunity and untapped potential of 'older' in all aspects of life (55/Redefined 2021)	- Surveys - Partnerships - ...
Institutions found in the report				

<p>“Projeto recomeçar apresentação fundação Manuel Violente”</p>				
<p>Work over 40</p>	<p>Italia</p>	<p>Association</p>	<p>Promoting/reintegrating the unemployed over 40 (“Associazione Lavoro over 40” 2019) (Projeto recomeçar apresentação fundação Manuel Violente 2017)</p>	<ul style="list-style-type: none"> - Image and awareness campaigns - Anti-discrimination activities - Networking of actors - Advices and others

				supports for employers
Senior Network	Denmark	Network	Match unemployed seniors in the network with local opportunities (Projeto recomeçar apresentacao fundacao Manuel Violente 2017)	<ul style="list-style-type: none"> - Visit to potential employers - Short courses on job search - General Networking

14.3. Appendix 3 – Addressing Unemployment Among Individuals Over 50: EU Initiatives and Strategies

The European Union (EU) is facing significant demographic challenges as its population continues to age. This demographic shift has profound implications for the labour market, particularly for individuals over 50 years old who often encounter unique challenges when seeking employment. In this dissertation we want to explore the situation of unemployed persons aged 50 and above, the

specific difficulties they face, and the political initiatives and strategies employed by both the EU and individual member states to address this issue. (BMFSFJ, 2005, p. 27)

The Challenges Faced by Unemployed Individuals Over 50

The impact of the COVID-19 pandemic and the subsequent economic recession has further exacerbated the challenges faced by older job seekers. Before delving into the political initiatives, it is essential to understand the context in which these initiatives operate. (EU Commission, n.d.)

The recession of 2020 had far-reaching effects on various segments of the population. Young people, low-skilled workers, and women bore a disproportionate burden, resulting in a polarized labor market. Furthermore, the scarcity of job vacancies, at its lowest point in over two decades, has created formidable challenges for job seekers across age groups. Among them, older individuals, especially those over 50, face the most significant obstacles when attempting to rejoin the workforce. These hurdles often stem from age-related stereotypes and a limited availability of opportunities. (EU Commission, n.d.)

EU Initiatives to Address Unemployment Among Persons Over 50

The EU has set ambitious goals concerning demographic trends and the activation of older individuals. In 2001, during the European Summit in Stockholm, member states agreed to integrate half of the EU population in the age group "55-64" into the labor market by 2010. A year later, at the European Summit in Barcelona, member states committed to increasing the average actual retirement age in the EU by five years by 2010. Activation of older individuals became a top priority, highlighted by the European Commission's swift action in its contribution to the Spring European Council meeting in 2004.

The EU's recommendations for activating older individuals within member states follow a lifecycle-based approach and address a broad spectrum of topics and institutional levels. The core policy areas identified by the European Commission include:

Adequate Financial Incentives: Encouraging a shift away from early retirement models and reducing financial incentives for leaving the labor market, such as high unemployment benefits.

(Götz et al., 2006 pp. 5-7)

Good Health and Safety Conditions in the Workplace: Emphasizing the importance of maintaining healthy and safe workplaces, especially considering that work-related illnesses tend to increase with age.

Flexible Work Arrangements: Recognizing that older workers often prefer part-time and flexible work arrangements, with retirement being envisioned as a gradual process.

Lifelong Access to Education and Training: Acknowledging that older workers participate less in further education and training programs, the EU encourages ongoing education and training opportunities to help them adapt to technological advancements.

Effective Active Labor Market Policies: Involving programs and measures designed to support the continued employment of older workers through subsidies, tailored tax and contribution rules, and the reintegration of older unemployed individuals through counseling, training, and qualification initiatives.

Improved Job Quality: Prioritizing high-quality jobs, engaging tasks, and career development opportunities for older individuals to make work more attractive and sustain work motivation even in advanced age.

Awareness Building: Promoting awareness among the population, especially employers, about the challenges and opportunities presented by an aging workforce to prevent age discrimination and foster age-diverse workforce models.

In summary, the EU's initiatives to address unemployment among persons over 50 reflect a comprehensive approach that recognizes the multifaceted nature of the issue and emphasizes the importance of active policy measures to harness the potential of an aging population while promoting inclusivity and diversity in the workforce. (Götz et al., 2006 pp. 14-16)

Examples of National Initiatives

Several EU member states have implemented specific programs and incentives to encourage the employment of individuals over 50. Here are some examples:

Austria: The "Eingliederungsbeihilfe" provides financial incentives to companies that hire individuals over 50, promoting the employment of older workers. (AMS Vorarlberg, 2021)

Germany: The "Perspektive 50plus" program integrated approximately 443,000 long-term unemployed individuals over 50 into the labor market by engaging with small enterprises, providing coaching, and promoting health and mobility. (Innovation in Politics Institute, 2020, p. 51)

Poland: The ACTIVE 50+ program in Poland successfully ensured employment for older individuals through educational materials for both job seekers and employers, changing perceptions of mature professionals. (Innovation in Politics Institute, 2020, p. 8-9)

Switzerland: The "Supported Employment" pilot project in Switzerland offers job coaches to assist job seekers over 50, actively helping them find suitable employment and providing support beyond the hiring phase. (OECD, 2013)

Conclusion

The challenges posed by unemployment among individuals over 50 in Europe are complex, but both the EU and individual member states are taking proactive steps to address them. By promoting lifelong learning, flexible work arrangements, and age-appropriate policies, these initiatives aim to integrate older workers into the labor market, fostering inclusivity and reaping the benefits of their experience and expertise. As Europe continues to grapple with demographic changes, these strategies are crucial for sustaining a dynamic and competitive workforce.

14.4. Appendix 4 – Questionnaire (selected original questions from SHARE adapted and translated for dNovo)

Source:

Börsch-Supan, A. (2022). Survey of Health, Ageing and Retirement in Europe (SHARE) Wave 6. Release version: 8.0.0. SHARE-ERIC. Data set. DOI: 10.6103/SHARE.w6.800

1) Gender OBSERVATION

Indicate the respondent's gender based on observation (ask if unsure):

- Male
- Female

2) YearBirth

In which month and year were you born?

...

3) CurrentJobSit

Please observe the card [SHOWCARD]. In general, which of the following options best describes your current job situation? NOTE: Select only one option. Provide the following only if the respondent has doubts:

(1. Retired (from your job, including partial retirement, early retirement, or pre-retirement).

The option "Retired" refers only to being retired from your job. If the person receives a survivor's pension and not a pension from employment, the code of retired cannot be assigned. If you do not fit into categories 2 to 5, the option "Other situation" should be assigned.)

- Retired
- Employed
- or self-employed (including work for the family business)
- Unemployed
- Permanently sick or disabled

- Homemaker
- Other situation

4) Depression

In the last month, have you felt sad or depressed? NOTE: If the participant needs clarification, say "by sad or depressed, we mean feeling down or melancholic."

- Yes
- No

5) LeftOut

How often do you feel left out? NOTE: Repeat if necessary

- Often
- Sometimes
- Almost never or never

6) Isolated

How often do you feel isolated from others? NOTE: Repeat if necessary

- Often
- Sometimes
- Almost never or never

7)EachDay

How often do you look forward to each day? NOTE: [SHOWCARD]. Read aloud.

- Often
- Sometimes
- Rarely
- Never

8)LifeMean

How often do you feel that your life has meaning? NOTE: [SHOWCARD]. Read aloud.

- Often
- Sometimes
- Rarely
- Never

9) FullEnerg

Currently, how often do you feel full of energy? NOTE: [SHOWCARD]. Read aloud.

- Often
- Sometimes
- Rarely
- Never

10) FullOpport

How often do you feel that life is full of opportunities? NOTE: [SHOWCARD]. Read aloud.

- Often
- Sometimes
- Rarely
- Never

11) FutuGood

How often do you feel that the future looks good? NOTE: [SHOWCARD]. Read aloud.

- Often
- Sometimes
- Rarely
- Never

14.5. Appendix 5 – Questionnaire (selected original questions from SHARE)

Source:

Börsch-Supan, A. (2022). Survey of Health, Ageing and Retirement in Europe (SHARE) Wave 6. Release version: 8.0.0. SHARE-ERIC. Data set. DOI: 10.6103/SHARE.w6.800

1) DN042_Gender OBSERVAÇÃO

Aponte o sexo do(a) respondente a partir da observação (pergunte se não tiver a certeza) MALE OR FEMALE 1. Masculino 2. Feminino

2) DN003_YearBirth

Em que mês e @bano@b nasceu?

MÊS: ^DN002_MoBirth @

bANO@b: YEAR OF BIRTH 1900..2015

3) EP005_CurrentJobSit

Por favor, observe o cartão [SHOWCARD]. Em geral, qual das seguintes opções melhor descreve a sua situação @batual@b perante o emprego? IWER: Seleccione apenas uma opção.

Indique o seguinte apenas se R tiver dúvidas:

(1. Reformado(a) (do seu emprego, incluindo reforma parcial, reforma antecipada ou pré-reforma).

A opção Reformado(a) refere-se apenas a estar reformado(a) do seu emprego. No caso da pessoa receber uma pensão de sobrevivência e não uma pensão decorrente do emprego não lhe poderá ser atribuído o código de reformada. Se não se enquadrar nas categorias de 2 a 5, deverá ser-lhe atribuída a opção "Outra situação".)

CURRENT JOB SITUATION

- Reformado(a)
- Empregado(a)

- ou trabalhador(a)
- por conta própria (incluindo trabalho para negócio da família)
- Desempregado(a)
- Permanentemente doente ou incapacitado(a)
- Dono(a) de casa
- Outra situação

4) MH002_Depression

No último mês, sentiu-se triste ou deprimido(a)? IWER: Se o(a) participante precisar de uma clarificação, diga "por triste ou deprimido queremos dizer sentir-se em baixo ou melancólico"

DEPRESSION

- Sim
- Não

5) MH035_LeftOut

Com que frequência se sente posto(a) de parte? IWER: Repetir se necessário HOW OFTEN

LEFT OUT

- Frequentemente
- Algumas vezes
- Quase nunca ou nunca

6) MH036_Isolated

Com que frequência se sente isolado(a) dos outros? IWER: Repetir se necessário

HOW OFTEN ISOLATED

- Frequentemente
- Algumas vezes
- Quase nunca ou nunca

7) AC020_EachDay

Com que frequência aguarda com expectativa o dia seguinte? IWER: Cartão [SHOWCARD]. Ler em voz alta. LOOK FORWARD TO EACH DAY

- Muitas vezes
- Às vezes
- Raramente
- Nunca

8) AC021_LifeMean

Com que frequência sente que a sua vida tem sentido? IWER: Cartão [SHOWCARD].

Ler em voz alta.

LIFE HAS MEANING

- Muitas vezes
- Às vezes
- Raramente
- Nunca

9) AC023_FullEnerg

Actualmente, com que frequência se sente cheio(a) de energia? IWER: Cartão [SHOWCARD].

Ler em voz alta.

FEEL FULL OF ENERGY

- Muitas vezes
- Às vezes
- Raramente
- Nunca

10) AC024_FullOpport

Com que frequência sente que a vida está cheia de oportunidades? IWER: Cartão

[SHOWCARD]. Ler em voz alta.

FULL OF OPPORTUNITIES

- Muitas vezes
- Às vezes
- Raramente
- Nunca

11) AC025_FutuGood

Com que frequência sente que o futuro lhe é risonho? IWER: Cartão [SHOWCARD]. Ler em voz alta.

FUTURE LOOKS GOOD

Muitas vezes

Às vezes

Raramente

Nunca

14.6. Appendix 6: NADS Scale – Adaptation for dNovo

Attitudes towards ageing workers

1 = totally disagree and 5 = totally agree

1. Elderly workers are passed over/left out in cases of promotion or internal recruitment
2. Elderly workers do not have equal opportunities for training during work time
3. Younger workers are preferred when new equipment, activities or working methods are introduced
4. Elderly workers less often take part in development appraisals with their superior than younger worker
5. Elderly workers have less wage increase than younger workers
6. Elderly workers are not expected to take part in change processes and new working methods to the same degree as their younger peers

14.7. Appendix 7 – NADS Scales Results for further Comparison

14.7.1. Spanish Adaptation and Preliminary Validation of the Nordic Age Discrimination Scale (NADS)

Source:

Carral, Patricia, and Carlos-María Alcover. 2019. "Measuring Age Discrimination at Work: Spanish Adaptation and Preliminary Validation of the Nordic Age Discrimination Scale (NADS)." *International Journal of Environmental Research and Public Health* 16 (8): 1431.

<https://doi.org/10.3390/ijerph16081431>.

Figure: Spanish Adaptation and Preliminary Validation of the Nordic Age Discrimination Scale (NADS)

(14 - 107).

NADS Items. Spanish [English]	Total Sample
1. Los trabajadores de edad avanzada son pasados por alto/excluidos en casos de promoción o reclutamiento interno [Elderly workers are passed over/left out in cases of promotion or internal recruitment]	0.77
2. Los trabajadores de edad avanzada no tienen igualdad de oportunidades de formación durante el tiempo de trabajo [Elderly workers do not have equal opportunities for training during work time]	0.77
3. Se prefiere a los trabajadores jóvenes cuando se introducen nuevos equipos, actividades o métodos de trabajo [Younger workers are preferred when new equipment, activities or working methods are introduced]	0.80
4. Los trabajadores de edad avanzada participan menos a menudo en evaluaciones de desarrollo con sus superiores que los trabajadores más jóvenes [Elderly workers less often take part in development appraisals with their superior than younger workers]	0.72
5. Los trabajadores de edad avanzada tienen menor incremento salarial que los más jóvenes [Elderly workers have less wage increase than younger workers]	0.52
6. No se espera que los trabajadores de edad avanzada tomen parte en procesos de cambio y nuevos métodos de trabajo en el mismo grado que sus pares más jóvenes [Elderly workers are not expected to take part in change processes and new working methods to the same degree as their younger peers]	0.78
Eigenvalue	3.2
Explained variance	54.1%

Note: N = 104. Extraction Method, principal component analysis, only one factor was extracted.

14.7.2. Nordic Age Discrimination Scale (NADS)

Source: Furunes, Trude and Mykletun, Reidar J.. 2010. "Age discrimination in the workplace: validation of the Nordic Age Discrimination Scale (NADS)." *Scandinavian journal of psychology* 51 1: 23-30 .

NADS item	Norway	Sweden	Finland	Total sample	Men	Women
1 Elderly workers are passed over/left out in cases of promotion or internal recruitment	0.82	0.67	0.73	0.76	0.81	0.73
2 Elderly workers do not have equal opportunities for training during work time	0.86	0.71	0.82	0.81	0.79	0.81
3 Younger workers are preferred when new equipments, activities or working methods are introduced	0.78	0.77	0.75	0.77	0.80	0.75
4 Elderly workers less often take part in development appraisals with their superior than younger workers	0.85	0.63	0.64	0.74	0.78	0.72
5 Elderly workers have less wage increase than younger workers	0.56	0.52	0.43	0.51	0.51	0.50
6 Elderly workers are not expected to take part in change processes and new working methods to the same degree as their younger peers	0.47	0.69	0.59	0.55	0.60	0.52
Eigenvalue	3.7	3.2	3.2	3.4	3.6	3.3
Explained variance	61%	54%	54%	57%	60%	55%

Note: Extraction method: Maximal Likelihood, only one factor was extracted.

Table: Confirmatory factor analysis of the NADS, factor loadings for subsamples and total sample, and for men and women split

	Norway (<i>n</i> = 409)	Sweden (<i>n</i> = 201)	Finland (<i>n</i> = 391)	Total sample (<i>N</i> = 1001)
Mean*	2.23	1.96	2.10	2.13
Median	2.00	1.80	2.00	2.00
SD	0.95	0.81	0.78	0.87
Range	1–5	1–5	1–5	1–5
Cronbach's alpha	0.87	0.82	0.82	0.86
Skewness	0.61	0.82	0.77	0.73
St. E. of skewness	0.12	0.18	0.13	0.08

*Differences between countries (subsamples) are not significant.

Table: Mean values, median, SD, range, and Cronbach's alpha for subsamples and total sample