Master's thesis – Business Administration

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A study to examine the effect a potential career shock, caused by the COVID-19 pandemic, has on the perceived employability of the employee while being moderated by their career resilience.

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Abstract

In the past decade the responsibility of the employees' career started shifting more towards the employee instead of the employer (Clarke, 2009). Furthermore, the decrease of demand on the labour market increased the importance of employability (Berntson et al., 2006). In addition, the COVID-19 pandemic had great influence on the labour market (Borland & Charlton, 2020). This study subsequently aimed to investigate the association of perceiving a career shock due to COVID-19 with perceived employability amongst individuals with an exploration of the moderating effect of career resilience. Based on the Conservation of Resources theory of Hobfoll (2001), it is expected that the COVID-19 pandemic will lower the level of resources an individual possesses, which in turn will affect the perceived employability negatively. This association is expected to be buffered by the level of career resilience of the individual. To test hypotheses, the researcher collected primary data through online questionnaires with a sample of 168 participants, consisting of individuals between 19-71 years. Contrary to the expectations, the results indicate that there is no (negative) significant result on the association of a career shock caused by COVID-19 and the perceived employability. In addition, the researcher expected that career resilience would have a buffering effect on the association of a career shock with intrinsic motivation, yet no significant results were revealed. However, a non-hypothesized significant association was found between career shocks caused by COVID-19 and career resilience. This finding indicate that career resilience can be of relevance in safeguarding during future career shocks.

Keywords: COVID-19, Perceived employability, Career Shocks, Career resilience

Preface

I conducted this study in order to complete the master Strategic Human Resources Leadership at the Radboud University. The trajectory started almost in sync with the rise of the COVID-19 pandemic in the Netherlands which motivated me to take this into consideration as a possible master's thesis topic. The topic also fitted the topic 'major life events' I was assigned to considering my supervisors expertise.

Looking back, I probably learned more than I anticipated beforehand. I read and learned a lot concerning the topic of major life events which gave me more motivation throughout the trajectory. I saw that this research could potentially be relevant considering the relative low literature available concerning the topic of major life events and career resilience, the buffering variable. I believe that I learned a great deal while using the scientific approach in this thesis, which shall be relevant for my future career.

Additionally, I would like to take this moment to thank several people that, each in their own way, contributed to the writing of this thesis. First of all, I would like to thank my thesis supervisor dr. K. Pak for her extensive feedback, patience and inexhaustible help, which I really needed to finalize this thesis. Furthermore, I would like to thank dr. R.L.J. Schouteten for his guiding and revisionary feedback. Last, but certainly not least, I would like my girlfriend Nathalie for being there for me in times I felt unmotivated and by guiding and supporting me throughout the whole trajectory. Also, both my parents and sisters really helped me completing this work.

I hope I have aroused your interest in reading this thesis!

Philip de Boer

Index

1   Introduction

The current COVID-19 pandemic has a great impact on the labour market (Borland & Charlton, 2020). Severe interventions from governments worldwide to control the deadly virus impacted the economy drastically, resulting in a depletion of demand on the labour market (Borland & Charlton, 2020). The decrease of demand on the labour market makes it more difficult to find a new job and therefore increases the importance of employability (Berntson et al., 2006). Furthermore, in the past decade the responsibility of the employees' career shifted more towards the employee instead of the employer (Clarke, 2009). This consequently means that the employee has to adapt to a more active role in managing their own career development in order to remain competitive and attractive for organizations on the labour market (Clarke, 2009). The combination of the decreasing demand on the labour market due to the COVID-19 pandemic and the shifting responsibility of career development, makes it important for employees to secure their labour market position. This can be done through employability because employability concerns the capacity to control the employments options (DiRenzo & Greenhaus, 2011).

Employability is an aggregation of the words 'employ' and 'ability' and concerns one's ability to be employed. One's perceived employability therefore features the individual's perception of having the ability to be employed (Vîrga, De Witte & Cifre, 2017). Berntson et al. (2006) view employability as an outcome which requires resources to maintain a certain level. According to the Conservation of Resources theory of Hobfoll (1989), people must invest the resources they possess to protect themselves against future resource loss. People also protect and accumulate these resources over time to enhance their well-being and development (Akkermans, Seibert & Mol, 2018). Hobfoll (1989) explains that people who possess a high level of resources are also less vulnerable to resource loss due to the fact that they are more capable of resource gain. Classifying perceived employability as a career outcome which requires resources as input, consequently means employees must invest in their employability to prevent loss of employability in the future.

It is expected that one's perceived employability suffers in times of high uncertainty which occurs during crises, like the one resulting from the COVID-19 pandemic (Wallinder, 2018). According to Akkermans, Seibert and Mol (2018) a crisis or any other major disruptive event happening around the individual has a great impact on the career of the individual. Akkermans, Seibert and Mol (2018) refer to these events as career shocks. Akkermans, Seibert and Mol (2018) describe a career shock as an extraordinary event that is both unpredictable and

uncontrollable, and impacts the individuals career path significantly. However, a career shock can be both positive and negative (Blokker et al., 2019). An example of a positive career shock can be a raise or a promotion. In this research we classify COVID-19 as a possible career shock. Although the COVID-19 pandemic affects the entire country, Akkermans (2020) mentions that the COVID-19 crisis does not result in an inevitable career shock. The definition consists of a process of initial sensemaking and therefore differs per individual if and how they perceive that career shock (Akkermans, 2020). In this thesis the work of Luhmann et al. (2020) is used to measure how, and if, the individual perceives the career shock through different characteristics. These characteristics are; impact, emotional significance and valence.

Akkermans (2020) mentions that a relevant variable in the association between career shocks and perceived employability is the level of career resilience of the individual. Also, Luhmann (2020) mentions very briefly the link between resilience and major life events. In this thesis, career resilience concerns the capacity an individual possesses to adapt and flourish one's career to bounce back from disruptions (Seibert et al., 2013). Career resilience moderates the impact certain unforeseen events have on certain outcomes, such as perceived employability (Bright & Pryor, 2005). In this thesis the unforeseen event is the COVID-19 pandemic causing a career shock for the individual. According to Lindahl and Grace (2015), it is more than likely that pandemics and disease outbreaks will occur more frequently in the future since this trend is already showing since the 1980's. It is for this reason that this research is of practical relevance due to the fact that the outcomes could possibly assist the individual in guiding and securing their employability in a future pandemic. Subsequently, to this date there is very little research done on the link between career shocks associating with the perceived employability, while this association is being moderated by the perceived career resilience of the individual. Furthermore, the interconnection between the theory on career shocks and the Conservation of Resources theory from Hobfoll (1989) might provide new insights in how adaption and securing of the labour market position cohere in times of a pandemic (Akkermans et al., 2018). The central research question will be:

To what extent are impact, emotional significance and valence, as characteristics of a career shock caused by the COVID-19 pandemic, associated with the employees' perceived employability and to what extent is this association moderated by the career resilience of the individual?

In the current literature on career shocks and perceived employability, an association between the two aspects has previously been made but very little research is done on this topic (Akkermans, 2020; Kinnunen et al., 2011). The context of the COVID-19 pandemic will also create new theoretical relevance. As the scale of this event is new and likely to happen more frequently in the future (Lindahl, Grace, 2015). Subsequently, Akkermans (2018) state that the COR theory of Hobfoll (2001) might be relevant for further research in the combination with career shocks, but so far little research has been done on this combination. Furthermore, the addition of resilience as the moderating variable buffering the direct relationship between career shocks and perceived employability, has not yet been examined much before (Akkermans, 2018). This thesis can provide practical relevance for the reader as a guide to secure their employability during the COVID-19 crisis and future crises. Therefore, this thesis is solely focused on the individual. The results from this thesis will provide insights in how an individual perceiving a negative career shock can buffer the impact on their employability through maintaining resilient concerning their career. By being able to control the influence external factors have on the employability, and individual might be able to safeguard their labour market position in the future.

2   Theoretical backgrounds

Perceived Employability

Although there is a lack of consensus on the definition of the term employability, most authors agree on the general definition of employability as the 'ability to be employed' (Vanhercke et al., 2014). Also, most authors agree that this ability to be employed concerns both the internal as well as the external labour market and concerns the ability on achieving a new job (Berntson & Marklund, 2006; Forrier & Sels, 2003a; Vanhercke et al., 2014). Both Berntson and Marklund (2006) and Vanhercke et al. (2014) say the level of employability is driven by the individual's perception whereas Forrier and Sels (2003a) say it's solely the individual's chance of finding a new job, and not perception driven. Rothwell and Arnold (2007) state that employability is related to how an individual perceives their employability by creating a perception of how they expect to overcome certain obstacles in the future. In this thesis the researcher examines this perception of the individual by asking questions regarding the perceived employability of the individual, instead of examining the individual's chance of finding a new job and will therefore focus on the perception-driven definition. This thesis therefore chooses to follow Berntson and Marklund (2006) and Vanhercke's et al. (2014), instead of Forrier and Sels' (2003b), definitions on employability which say that it's the individual's perception that matters on the concept of employability instead of the individual's chance to find a new job. The researcher chooses this point of view due to the data gathering technique that would be required for both definitions. This leads to the following stipulative definition of the term perceived employability: perceived employability concerns the individual's perception of his or her possibilities of obtaining and maintaining employment.

The most common predictors of perceived employability are derived from the human capital theory (Becker, 1993) and contextual determinants (Berntson, Sverke & Marklund, 2006). Human capital is often indicated by training, education and competence development and contains experience and human skills a job acquires (Berntson, Sverke & Marklund, 2006). The theory shows that an increase in human capital will have positive effects on career outcomes, such as perceived employability (Berntson, Sverke & Marklund, 2006). However, contextual determinants have also shown to have significant impact on the perceived employability (Berntson, Sverke & Marklund, 2006). Structure and conditions of the labour market are examples of these contextual determinants. Although the individual has no influence

on this last variable, it could help the individual to know what the current state of demand is in the labour market to understand their perceived employability more thoroughly.

The most common outcomes of perceived employability are job satisfaction and work engagement according to Ngo, Liu and Cheung (2017). In the last decade the research attention arose to the relationship between perceived employability and subjective well-being of the individual. Job satisfaction and work engagement are examples of these (De Cuyper et al., 2009a; Vanhercke et al., 2014). Ngo, Liu and Cheung (2017) state that perceived employability is positively related to both job satisfaction and work engagement.

COVID-19 causing a career shock

In recent years, the research on unplanned major events influencing the careers of the individual have been increasing (Hirschi, 2010). In this thesis we will refer to these 'unplanned major events' as career shocks. In line with Akkermans (2020), this thesis views the current COVID-19 pandemic as an unplanned major life event, influencing the careers of individuals. Akkermans et al. (2018) define career shocks as:

"a disruptive and extraordinary event that is, at least to some degree, caused by factors outside the focal individual's control and that triggers a deliberate thought process concerning one's career. The occurrence of a career shock can vary in terms of predictability, and can be either positively or negatively valanced" (p. 4).

In this definition on career shocks, Akkermans et al. (2018) mention several distinguishing characteristics. Akkermans et al. (2018) start with referring to career shocks as "disruptive and extraordinary events". The definition of Akkermans et al. (2018) fits the COVID-19 pandemic as a career shock because the COVID-19 pandemic is both a disruptive as well as an extraordinary event for individuals (Akkermans, 2020). Subsequently, Akkermans et. al (2018) highlight in their definition the fact that a career shock is caused by external factors, beyond the control of the individual. This characteristic also fits in the context of the COVID-19 pandemic as the pandemic limits the individual in their actions (Akkermans, 2020). In the following characteristic of the definition, Akkermans et. al (2018) conclude that a career shock triggers a deliberate thought process concerning one's career. Due to the COVID-19 pandemic it is evident that the labour market is impacted significantly (Akkermans, 2020). While the impact on the labour market is very significant, and a majority of the sectors are influenced by the interventions of the government of the Netherlands, we can conclude that the COVID-19 crisis

will trigger a deliberate thought process for the employee concerning their future career (Borland Charlton; 2020, Akkermans; 2020). The last characteristic of the definition is the unpredictability of the event that impacts the individual, that can either be positively or negatively valenced. Akkermans (2020) state that the COVID-19 crisis is very difficult to predict and control for the individual and therefore fits as a career shock. Summarized, the four characteristics Akkermans et al. (2018) mention in their definition of career shocks fit the COVID-19 crises which means the COVID-19 crises can be classified as a career shock for individuals.

How an individual experiences this career shock can be measured by how the individual perceives certain characteristics of that career shock (Luhmann et al., 2020). To measure how an individual perceives that career shock we use three elements from the work of Luhmann et al. (2020) that fit the characteristics deducted from the definition of Akkermans et al. (2018) on career shocks. The three characteristics are: impact, emotional significance and valence (Luhmann et al. 2020). The first, impact, refers to the impact and duration the career shock has on the individual. This fits the first characteristic given in the definition of Akkermans et al. (2018) concerning how disruptful and how extraordinary the career shock is for the individual (Luhmann et al., 2020). The second, 'Emotional significance', reflects the emotional impact and stressfulness of an event (Luhmann et al., 2020). Emotional significance is linked to the second and third characteristic given by Akkermans et al. (2018) on how the career shock is both caused by external factors, beyond the control of the individual, as well as how the career shock triggers a thought process concerning one's career. The possibility that the career for the individual can be affected by an external factor can cause negative emotions for the individual (Luhmann et al., 2020). Both elements can cause stress for the individual and can impact the individual emotions and therefore fit the characteristic given by Luhmann et al. (2020). The last, 'Valence', refers to what extent the individual perceives the event as desirable/positive vs. undesirable/negative (Luhmann et al., 2020). Valence is linked to the last characteristic of Akkermans (2018) concerning the unpredictability of the event and how it can be valenced. With these characteristics and by measuring how individuals perceive these characteristics it is possible to examine their 'level' of experiencing a career shock.

Akkermans, Seibert and Mol (2018) suggest in their work that the Conservation of Resources theory of Hobfoll (2002) might provide new perspectives on the effects career shocks have on career outcomes, such as perceived employability. Forrier et al. (2009) mention that perceived employability uses resources as input, for instance competences and education (Fugate et al., 2004; Van der Heijde & Van der Heijden, 2006). The Conservation of Resources

theory of Hobfoll (2002) state that individuals will experience increased levels of stress if their resources-level drops. According to Hobfoll (2002), individuals must invest in resources they possess to make sure these resources don't decrease over time. In this research we implement Hobfoll's (2001) theory to link the experience of a career shock to a career outcome such as perceived employability. According to Akkermans, Seibert and Mol (2018), a decrease of resources seems likely when individuals experience a career shock caused by the COVID-19 pandemic. Examples of these resources are; demand on the labour market and self-efficacy (Akkermans, 2018). A drop in the level of resources will, according to Hobfoll (2002), result in an increase of stress experience. According to the COR theory (Hobfoll, 2002) this means that the experience of a career shock due to the COVID-19 pandemic will lower their possession of resources. Since the perceived employability is based on the possession of these resources, this consequently means that the perceived employability of the individuals will be negatively impacted. Blokker et al. (2019) acknowledge this and state that a negative career shock will negatively impact the perceived employability. Wallinder (2018) agrees on this matter and mentions in his work that in times of high uncertainty, like the COVID-19 pandemic, the perceived employability suffers and decreases. Based on these studies, it is likely that the COVID-19 pandemic will decrease the perceived employability for individuals. Therefore, the following hypothesis is drawn:

H1: The career shock-characteristic 'impact' is negatively related to the perceived employability

H2: The career shock-characteristic 'emotional significance' is negatively related to the perceived employability

H3: The career shock-characteristic 'valence' is negatively related to the perceived employability

Career resilience

Resilience is a term characterized as the 'ability to bounce back from adversity' (Mishra & McDonald, 2017). In times of organizational restructures and job insecurity, it is of particular importance to have the ability to be resilient (Mishra & McDonald, 2017). Since this thesis is focused on the career of the individual during the COVID-19 pandemic, the emphasis will be on the resilience the individual has regarding their career, called career resilience (Mishra & McDonald, 2017). The literature regarding career resilience suggests that it is a complex phenomenon that involves an interaction between characteristics of both the individual and the context (Mishra & McDonald, 2017). In the current literature available, there is a lack of consensus on how career resilience is defined. Mishra and McDonald (2017) define career resilience as '*a developmental process of persisting, adapting, and/ or flourishing in one's career despite challenges, changing events, and disruptions over time*' (p. 216). Rochat et al. (2017) define career resilience differently and came up with the following operational definition; '*the effective vocational functioning under disabling career-related circumstances* (p. 7). Both definitions include the focus on the career, as well as the presence of disruptions and adversity. However, Mishra and McDonald (2017) see career resilience as a *process* that develops overtime, while Rochat et al. (2017) view career resilience more as an *ability* an individual possesses at a given moment. Both the 'ability' focused and 'process' focused definitions have advantages and disadvantages. Defining career resilience as an 'ability' makes it possible to examine it in a cross-sectional study as it measures the career resilience an individual has at a given point in time, whereas defining career resilience as a 'process' requires a longitudinal study (Mishra & McDonald, 2017). The 'ability' focused definition fails to take into account that the ability to recover from adversity is not a constant or a fixed attribute and may change over time (Caza & Milton, 2012). This is something the 'process' focused definition does take into account. However, the 'process' focused definition is both very time consuming and harder to examine as it takes into account the different mechanisms that can potentially influence how individuals deal with career disruptions and changes (Mishra & McDonald, 2017). In this thesis we will examine career resilience in a cross-sectional study and therefore view and define it as an ability an individual possesses. This leads us to the following stipulative definition: career resilience is the ability an individual possesses to overcome career-related disruptions by effective vocational functioning.

Mishra and McDonald (2017) state three different outcomes of career resilience: career satisfaction; intentions to change careers and subjective career success. These outcomes all tend to benefit the career of the individual in such a way that the presents of career resilience will positively influence their career trajectory (Mishra & McDonald, 2007; Moorhouse & Caltabiano, 2007). Subsequently; Mishra and McDonald (2007) state that *'being resilient when faced with career challenges and adversities will likely result in persistence in achieving career goals'* (p. 226). For an individual, a career goal can be to not lose their job (Moorhouse & Caltabiano, 2007). Wagnild (1993) and Rutter (1987) state that resilience is a personality characteristic that moderates/buffers negative effects and promotes positive adaption which can protect the individual. In regard of this thesis, where the researcher will examine the negative effect the COVID-19 pandemic has on the perceived employability of the individuals, career resilience will be implemented as a moderating variable to examine if the presents of this variable will buffer or moderate the direct association (Mishra & McDonalds, 2017; Moorhouse & Caltabiano, 2007). Moorhouse and Caltabiano (2007) specify career resilience even more and state that career resilience qualities moderate the effect of unemployment. A higher level of career resilience will result in a lower chance of getting unemployed (Moorhouse & Caltabiano, 2007). We can therefore draw the following hypothesis:

H4: Career resilience moderates the relationship between the career shock-characteristic 'impact' and the perceived employability is such a way that when the career resilience is high, the negative relationship between the career shock-characteristic 'impact' and the perceived employability is weakened.

H5: Career resilience moderates the relationship between the career shock-characteristic 'emotional significance*'' and the perceived employability is such a way that when the career resilience is high, the negative relationship between the career shock-characteristic* 'emotional significance*' and the perceived employability is weakened.*

H6: Career resilience moderates the relationship between the career shock-characteristic 'valence' and the perceived employability is such a way that when the career resilience is high, the negative relationship between the career shock-characteristic 'valence' and the perceived employability is weakened.
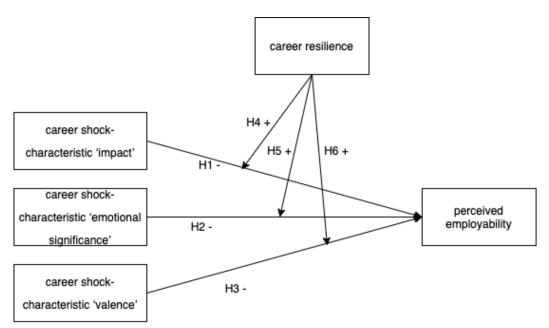
Figure 1: Conceptual model

3 Method

Research design

In order to answer the research question, quantitative research has been conducted. Quantitative research is suitable for this research in order to test if the hypotheses, visualized in the conceptual model (figure 1), are confirmed or not (Field, 2018). In order to examine the relations and test the hypotheses I used an online questionnaire to gather the data. This questionnaire can be found in Appendix A. The data from the questionnaires was then analysed using SPSS.

Procedure and sample

For this quantitative research the sampling technique called convenience sampling was used to gather all the primary data. The use of this technique made it easy for the researcher to gather the data and was convenient for the target population due to the fact that they can decide whether they want to participate or not (Etikan, Musa, & Alkassim 2016). Furthermore, this method is next being simple and cheap, fairly easy to implement (Jager, Putnick, & Bornstein, 2017).

The data collection was achieved using the online questionnaire service of Qualtrics. A total of 28 questions, categorised in six different sections, were asked to the respondents, including 4 questions regarding the control variables. Five categories contained items corresponding with each variable, the last category was associated with the control variables. All respondents were contacted using social media due to the fact that this questionnaire was solely online. Using different platforms (e.g., WhatsApp, Facebook, LinkedIn), the researcher was able to achieve the minimum number of respondents needed for this research according to the power analysis using G*Power.

The questionnaire was built with a clear introduction stating all the information the respondents needed. This contained both the goal of the research as well as how much time the questionnaire would take to complete. Furthermore, this introduction contained the researcher' contact information which the respondents would be able to use if there was any need for contact afterwards. In total the data gathering lasted around one week. After this period, the questionnaire was locked and any new responses were not recorded. The questionnaire used can be found in Appendix A.

A total of 204 responses were recorded during this time period. After scanning the data for any missing values and other inconsistencies a total of 168 responses (N=168) were used for the analysis. According to G*Power a minimum of 110 respondents was needed for this research, which was thus widely achieved. Using the descriptive statistics (Table 1) to analyse

the data of the control variables, we found that the age of the respondents ranged between 19 and 71. The average age of the respondents was 35.7 years (SD=14.4). Regarding the education of the respondent; of the 168 respondents, 93 respondents (55%) had an educational background with a university degree. 59 respondents (35%) with a University of Applied Sciences degree and 13 respondents (8%) with a Secondary Vocational Education. Three respondents filled in 'other' in this question. Of the 168 respondents, 103 female responses (61%) were recorded against 65 male responses (39%). Furthermore, the analysis of the type of contract of the respondents showed that 92 respondents (55%) had an indefinite contract against 63 with a fixed-term contract (38%). A total of 13 respondents had a temporary contract via an employment agency (8%).

Table 1

Demographic characteristics

Variables		Mean	SD	Range
Age		35.7	14.4	19-71

Variables	Categories	Frequencies	Per cent
Educational level	Secondary Vocational Education	13	7.7
	University of Applied Sciences	59	35.1
	University degree	93	55.4
	Other	3	1.8
	Total	168	100
Gender	Female	103	61.3
	Male	35	38.7
	Total	168	100
Type of contract	Indefinite contract	92	54.8
	Fixed-term contract	63	37.5
	Temporary employment-agency contract	13	7.7
	Total	168	100

Research ethics

During this research, the researcher complied several ethical considerations. The most important ethical considerations are listed below. Prior to the data gathering process, the ethical consideration was analysed. According to Sekaran and Bougie (2016) all data gathered through the questionnaire has to be treated with care and in a confidential manner. This consequently meant that the researcher handled all the data with care prior and after the data analysis. Furthermore, the questionnaire started start with a brief introduction to let the respondent get familiar with the topic of this thesis. Included in this introduction was the goal of this research and that the outcomes are strictly for the researchers own purpose (Sekaran & Bougie, 2016). After this introduction the control variables were questioned, followed by the first variable, the dependent variable. During the questionnaire the respondents always had the option to withdraw from filling out particular questions, or the entire questionnaire. This way ensures that the respondents are never felt forced to answer particular questions (Sekaran & Bougie, 2016).

Furthermore, after data collection, the researcher deleted all personal information still visible in the raw data file from Qualtrics. This concerned IP-addresses used by the individual. After that the analysis was done on the personal computer belonging to the researcher to prevent the option of people getting access to any data information.

Measuring instruments

In order to check the construct validity, we did an Exploratory Factor Analysis (EFA) for each variable. The scales that were used are evaluated based on their Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (> 0.5), Bartlett's Tests of Sphericity ($p < .05$), their eigenvalue (> 1), explained variance (> 60%), and the scree plot (Field, 2018). Furthermore, a reliability analysis was conducted by checking the Cronbach's Alpha (> 0.7) as a measure and criterion (Field, 2018). Only the variables visualized in the conceptual model (Figure 1) will be used in the EFA due to the fact that all other variables are single item variables.

Perceived employability. This is the dependent variable in this research. This variable was measured using the six-item scale of Rothwell and Arnold (2007). This scale fits this research due to the fact that the definition of the term used in this research and that of Rothwell and Arnold (2007) overlaps. Furthermore, Rothwell and Arnold's (2007) scale are a commonly used scale to measure perceived employability and is validated. The items were questioned using a five-point Likert scale ranging from 1 ('Strongly disagree') to 5 ('Strongly agree'). One example of the items is: '*I could easily get a similar job to mine in almost any organisation*'.

Together with the Exploratory Factor Analysis, a principal component analysis was conducted. After conducting the analysis and checking the assumptions, checking for communalities found that item 5 (PE_Q5) had an extraction value of .174 (>.2) which resulted in the removal of this item (Field, 2018).

After the removal of item 5 we found a KMO value of .645 and the Barlett's Tests of Sphericity was significant ($p < .01$) (Field, 2018). Furthermore, the communalities table showed that all communalities after extraction were > 0.3. When checking the Eigenvalues, the solution provided gives two components explaining 63.2% of the variance. However, after checking the Cronbach's Alpha of this scale, we found that it gives a value of .627, which does not exceed the number given by Field (2018) as required for proper reliability. Although the scale of Rothwell and Arnold (2007) is a common scale used to measure the reliability, a reliability problem occurred. However, the original scale from Rothwell and Arnold (2007) showed a reliability for the internal employability of .72, which is considered sufficient but also not really good. This matter shall be discussed in the discussion section concerning limitations and suggestions for future research. Any translation irregularities might have caused to let the reliability drop below the .7 threshold (Field, 2018).

Career shock-characteristic 'impact'. This is the first independent variable in this research. To measure the impact of the COVID-19 pandemic, the pandemic was classified as a career shock as discussed in the theoretical framework. For this thesis we used the work of Luhmann et al. (2020) to measure this variable. The scale of Luhmann et al. (2020) consists of six items. In this thesis we only used four items. This is because two items research the long-term consequences, which we will not examine in this research due to the fact that this research was cross-sectional orientated. One example of an item is: '*The event had many effects on my life*'. The response categories are rated on a five-point Likert scale ranging from 1 ('Does not apply at all') to 5 ('Applies completely').

Career shock-characteristic 'emotional significance'. This is the second independent variable in this thesis. This variable was also measured using the scale of Luhmann et al. (2020). This scale consists of six items. One example of the items is: '*The event moved me a lot*'. The items will be questioned using a five-point Likert scale ranging from 1 ('Strongly disagree') to 5 ('Strongly agree'). Item 3 and 5 were reverse questioned which made it critical to compute the item in SPSS prior to analysis.

Career shock-characteristic 'valence'. This is the third independent variable. This variable was also measured using the scale of Luhmann et al. (2020). This scale will consist of three items. One example of the items is: 'The event was joyful'. The items will be questioned

using a five-point Likert scale ranging from 1 ('Strongly disagree') to 5 ('Strongly agree'). All three items were asked negatively and were therefore reversed when computing the items.

In order to check if the scale for the career shock did consist of three sub-scales, the researcher did an Exploratory Factor Analysis and a principal component analysis combing the three variables. The results from this analysis showed an KMO value of .822 and the Barlett's Tests of Sphericity is significant (P<.001) which means these assumptions are met (Field, 2018). The communalities table shows that question 6 regarding the emotional significance had an extraction value of .211 (<.3) which is reason to delete this item. Subsequently, the total variance explained table provides the number of factors with their respective Eigenvalue. This table shows three factors with an Eigenvalue of 1.256 explaining 63.3% of variance. The Cronbach's Alpha of this scale is .757 which means this scale is considered to be reliable (Field, 2018). The output of this factor analysis can be found in Appendix B. Also, a reliability test was conducted on the three subscales of career shocks; impact, emotional significance and valence. The Cronbach's Alpha for each of the subscales was respectively; .841, .803 and .658. This consequently means that the Cronbach's Alpha for subscales impact and emotional significance is considered reliable and for valence is questionable (Field, 2018).

Career resilience. This is the moderating variable in this research. To measure this moderating variable, we used the five-item scale of Carson and Bedeian (1994). The response categories were rated on a five-point Likert scale ranging from 1 'disagree' to 7 'agree'. One example of the items is: '*The costs associated with my line of work/career field sometimes seem too great*'. Four out of the five items will be asked negatively and will therefore need to be reversed when scoring the items.

Checking the KMO value in the factor analysis and the Barlett's Tests of Sphericity for significance gives us respectively the values of .748 and P<.001 which means these assumptions are met. However, the communalities check showed some problems concerning item 5. The value after extraction is 0.22 (<.3) which means this item will be deleted. After one iteration, the KMO and Barlett's Tests of Sphericity of significance values: .757 and P>.001. The total variance explained table shows one factor explaining 64% (>60%) of variance. Furthermore, when checking the Cronbach's Alpha, we find a value of .803 which indicated a high level of reliability.

Control variables. In this thesis the researcher will take the following control variables into consideration; age, gender, level of education and type of contract. The current literature states that that these variables seem to be related to either the independent variables or the dependent variable in some manner. Also, the addition of the moderating variable, career

resilience can be of relevance to these control variables. Luhmann et al. (2020) state that both age and gender can be of significance in the research on career shocks. Akkermans (2018) confirm that age can be relevant in the examination of career shocks related to perceived employability. Rummel et al. (2019) state in their work that the level of education can also be of significance of and how the individual perceives a certain career shock. Ngo, Liu and Cheung (2017) write about how the type of contract the individual possess might be of relevance in their perception of employability. According to Field (2018) these variables should then be taking into consideration. These variables will be questioned at the start of the questionnaire to give the individual a little introduction before the main variables as seen in the conceptual model will be questioned.

Analysis

Prior to the analysis in SPSS, I first prepared the dataset. By preparing the dataset we screened the data for any missing values or outliers. The missing values were found while checking the data view in SPSS. The check for any outliers is done using the 'frequencies' option in SPSS (Hollenbaugh, 2016). There was no missing value greater than the 10-15% norm which meant no further actions were necessary (Hollenbaugh, 2016).

After the factor analysis was done, the multiple regression analysis was conducted using the PROCESS add-on in SPSS, using Model 1 (moderation) (Hayes, 2013). This model was selected because of the exploration of the moderator effect (Field, 2018). The multiple regression analysis is suitable to test the relation between the COVID-19 pandemic, measured using the characteristics of a career shock, and the perceived employability. Due to the fact that in this research there are three independent variables, a multiple linear regression analysis is needed. Furthermore, the multiple linear regression analysis allows to check whether the moderator in this research, career resilience, moderates the relationship between the independent and the dependent variables. In order to conduct the moderating analysis, the SPSS add-on macro PROCESS is used. This macro contains several different models, but in this research, we use model 1 (Field, 2018). The moderating analysis was conducted three times while there are three independent variable that undergo the moderation effect. The dependent variable, perceived employability was implemented as the 'Y' variable. The moderating variable, career resilience was implemented as the 'Moderation W' variable. During this regression analysis the independent variables were all implemented in the 'X' variable, one after each other, while al the remaining variable including the control variables were implemented as Covariates. PROCESS standardises all variables in this analysis, meaning that there is no need to check for assumption a priori (University of Twente, 2013). Furthermore,

PROCESS automatically avoids any multicollinearity and homoscedasticity (University of Twente, 2013).

4 Research results

Preliminary analysis

The correlations, the means and the standard deviations of the five variables and four control variables are visualized in table 2. This table shows both the correlations that are significant and those that are not significant. Career shock impact is negatively associated with gender (r = -.165, p = .033), career shock valence (r = -.266, p < .001) and career resilience (r = -.302, p < .001). However, career shock impact is positively associated with type of contract (r = .182, p = .018) and career shock emotional significance (r = .575, p < .001). Furthermore, career shock emotional significance is negatively associated with gender (r = -.297, p < .001). Also, career shock valence is negatively associated with career shock emotional significance (r = -.241, p = .002). And last, career resilience is negatively associated with career shock emotional significance (r = -.254, p < .001) and positively associated with career shock valence (r = .155, p = .044). This correlation table thus provides the suggestion that career resilience is affected by all three of the career shock variables or vice versa. Another interesting finding is that career shock valence has a significantly lower mean compared to the other independent variables. All items concerning career shock valence were questioned negatively which means that the respondents had a negative association with the COVID-19 pandemic. Furthermore, Table 2 shows that age is significantly associated with the type of contract. In this thesis these variables act as control variable and are not hypothesized

Table 2

Mean, SD & correlations of significant variables and control variables

Variable name	M	SD	1	2	3	4	5	6	7	8	9
1 Perceived employability	3.66	.54									
2 Career shock impact	3.47	.82	-0,083								
3 Career shock emotional significance	3.37	.75	-0,071	**.575****							
4 Career shock valence	2.00	.65	0,136	**-.266****	**-.241****						
5 Career resilience	3.47	.77	0,013	**-.302****	**-.254****	**.155***					
Control variables											
6 Gender	1.39	.49	0,118	**-.165***	**-.297****	0,069	-0,024				
7 Age	35.66	14.36	-0,131	-0,132	0,040	0,097	-0,023	0,070			
8 Type of Contract	1.53	.64	0,000	**.182***	-0,002	0,005	-0,065	**-.201****	**-.288****		
9 Educational level	2.51	.67	0,013	0,027	0,036	0,028	0,018	-0,097	0,100	-0,064	

Note: ***p < .01 (2-tailed), *p < .05 (2-tailed); N = 168*

Regression analysis

In order to test the hypotheses in this study, the PROCESS add-on in SPSS is used for the exploration of the moderating effect (Field, 2018). The result from this analysis can be found in table 3, including the control variables.

The first (H1) hypothesis expected a negative association between the career shock-characteristic 'impact' and perceived employability; however, no significant effect is found (b = -.053, p = .43). Therefore, hypothesis H1 is not confirmed. The second hypothesis (H2) expected a negative association between the career shock-characteristic 'emotional significance' and perceived employability. Table 3 however, shows no significant effect (b = .261, p = .34). Subsequently, hypothesis H2 is not confirmed. The third hypothesis (H3) expected a negative association between career shock-characteristic 'valence' and perceived employability. The results show no significant effect (b = .113, p = .10). This means that hypothesis H3 is not confirmed.

Hypotheses H4, H5 and H6 expected that career resilience moderated the relationship between the different career shock characteristics in such a way that when the career resilience is high, the negative relationship between the career shock characteristics and perceived employability is weakened. Subsequently, Table 3 (Model 1) provides the results from the interaction effect concerning the variable career shock impact, and shows no significance (b = -.01, p = .92). Hence hypotheses H4 is not confirmed. Table 4 (Model 2) and Table 5 (Model 3) provide the results concerning the interaction effect of career resilience of respectively career shock emotional significance and career shock valence. The interaction effect concerning the variable career shock emotional significance shows no significance (b = -.06, p = .38). Hence hypothesis H5 is not confirmed. Table 5 (Model 3) provides the interaction effect concerning the variable career shock valence and shows also no significance (b = -.01, p = .91). Although not hypothesized, the control variable of age turned out to be significant in all three models.

Table 3

Results for the moderated analysis with career resilience as moderator moderating the career shock impact (Model 1)

Outcome: Perceived employability (Model 1)			
Model summary	R^2	F	*p*
	.059	1.106	.362
Predictor variable	*b*	**SE**	*p*
Career shock impact	-.031	.227	.893
Career shock emotional significance	.032	.073	.662
Career shock valence	.114	.068	.095
Career resilience	.007	.227	.977
Career resilience x Career shock impact	-.006	.061	.916
Gender	.137	.094	.147
Age	-.007	.003	.039
Type Contract	-.008	.073	.919
Education	.032	.064	.620

Note: N=168

Table 4

Results for the moderated analysis with career resilience as moderator moderating the career shock emotional significance (Model 2)

Outcome: Perceived employability (Model 2)			
Model summary	R^2	F	*p*
	.064	1.1968	.301
Predictor variable	*b*	SE	*p*
Career shock impact	-.053	.067	.428
Career shock emotional significance	.261	.270	.335
Career shock valence	.113	.068	.098
Career resilience	.2073	.260	.427
Career resilience x Career shock emotional significance	-.063	.071	.379
Gender	.134	.093	.151
Age	-.006	.003	.045
Type Contract	-.006	.072	.930
Education	.030	.064	.428

Note: N=168

Table 5

Results for the moderated analysis with career resilience as moderator moderating the career shock valence (Model 3)

Outcome: Perceived employability (Model 3)			
Model summary	R^2	F	*p*
	.059	1.106	.361
Predictor variable	*b*	SE	*p*
Career shock impact	-.053	.0671	.427
Career shock emotional significance	.032	.074	.668
Career shock valence	.146	.295	.620
Career resilience	.001	.167	.995
Career resilience x Career shock valence	-.009	.080	.910
Gender	.136	.094	.147
Age	-.007	.003	.038
Type Contract	-.009	.072	.903
Education	.031	.064	.626

Note: N=168

5   Conclusion and Discussion

This research was conducted to examine the association between the COVID-19 pandemic and the perceived employability of individuals and to examine if career resilience had an influence on this association. In this research there is a lack of significant effects. The COVID-19 pandemic is not associated with perceived employability; neither was the effect of career resilience on this association. Consequently, all hypotheses are rejected.

Discussion

The results show no significant direct relation between the career shock characteristics and the perceived employability. This can be explained by several factors which shall be discussed in this section. In this research, career shocks are viewed as predictors of perceived employability. The theory of Luhmann (2018), which was mainly used in this research, views a career shock as a psychological outcome. Luhmann (2018) state that to sufficiently account for the psychological outcome of the experienced major life event, a distinction must be made between different characteristics of that event. In her work, Luhmann (2018) made a distinction between nine different characteristics in order to test how the event affected the individual. In this research the researcher followed Luhmann's (2020) distinction of characteristics, but only choose three characteristics. The characteristics that were chosen were based on the theory of Akkermans (2018) regarding career shocks. The three characteristics used were; impact, emotional significance and valence. Luhmann (2018) state that of these three characteristics the first two, impact and emotional significance, refer to the perceived consequences of the event, while only valence refers to the event itself. The other six characteristics that were not implemented in this research were: change in world views, social status change, predictability, extraordinariness, external control and challenge. Although some of these characteristics can be linked to the COVID-19 pandemic, the definition of Akkermans (2018) only withdrew a match with three characteristics. The absence of the other six characteristics Luhmann (2018) used in her research could explain why the associations in this research were not significant. The reason behind this is that if you only use a portion of the theory and the validated model provided by the original author, it can be anticipated that the results can also be skewed in the wrong direction (Field, 2018). Subsequently, only one characteristic referred to the event itself (valence) and two referred to the perceived consequences (impact and emotional significance),

while the full model of Luhmann et al. (2018) had a division where five characteristics referred to the event itself and four referred to the perceived consequences. Furthermore, Luhmann (2020) stated in a later published work that the inclusion of consequence-focused and event-focused characteristics introduces conceptual problems. Luhmann (2020) stated that evaluating a situation or event based on the consequences is problematic due to the fact that this can cause circularity problems (Luhmann, 2020; Rauthmann, 2015). Circular reasoning happens in an argument in which the proposition is supported by the premises, which is supported by the proposition. Luhmann (2020) states that these circularity problems could be avoided by measuring the perceived event characteristics and psychological outcomes, such as perceived employability, at a different time. In this research, the researcher followed a cross-sectional path by gathering all the data at the same time. According to Luhmann (2020) this means that circularity problems may appear and cause issues in testing the composed variable (Rauthmann, 2015). Also, a methodological flaw occurred concerning the cross-sectionality of the research because this prohibited the option to examine the variables during a certain time period (Sedgwick, 2014). A cause-and-effect examination was hereby impossible (Sekaran & Bougie, 2016). This might be relevant due to the fact that this research examines the state of the individual' employability and to what extent the individual experiences a career shock due to COVID-19, a shift of experience is possible during an event that lasts over 15 months. Furthermore, this research examined the perceived consequences of an event while the event was still happening. According to Luhmann (2020) this could be problematic and causing several problems. First of all, examining the consequences of an event while it is still happening could mean that individuals may not experience any consequences, yet.

The moderating effect in this study, career resilience, was hypothesized to weaken the negative relationship between a career shock caused by the COVID-19 pandemic and the perceived employability. However, no significant effect was found. However, the results show a significant relation between career resilience and all three characteristics of career shocks. However, there appears to be a discrepancy in the direction of these relations. Career Resilience seems to be negatively related to career shock characteristics impact and emotional significance and positively related to career shock characteristics valence. The relation between these variables might be relevant for future research, due to the fact that this subject is relatively new and could be of relevance for individuals during future career shocks. Furthermore, in this research we already used the COR theory of Hobfoll (2001) to better understand the way different variables influence each other. In this study the researcher viewed career resilience as a skill that an individual may, or may not possess in different levels. Coetzee et al. (2015) said

that career resilience can be viewed as a psychosocial resource, which an individual can acquire or lose over time. In this case, if career resilience is indeed viewed as a resource, as Coetzee et al. (2015) confirm, career resilience might in fact not be an independent variable, but a dependent variable, influenced by the amount of resources an individual possess. The reasoning behind this is that if the occurrence of the COVID-19 pandemic indeed caused a career shock and results in a depletion of resources, this will automatically impact the level of career resilience of the individual because this is also impacted by the level of resources (Coetzee et al. 2015). This could mean that conceptual model used in this research is wrongly implemented and should be reassessed during future research. The variable career resilience might be more suitable as a mediating variable. The researcher did check the possibility of a significant mediating association between the variables, but no significant association was found.

Furthermore, Luhmann (2020) stated that to examine the impact of a career shock and the psychological outcomes, the data gathering must take place at different times in order to prevent circularity possibilities. At the time the data was gathered and the questionnaires were conducted, the COVID-19 pandemic was still present and consequences might not be revealed for the individual yet. There might be a possibility that the individual did not experience a career shock at the moment the questionnaire was filled in, but will experience this later on.

Limitation and possibilities for future research

There are several limitations present in this research. The first one is the cross-sectionality of this study. As already discussed in the previous paragraph, a longitudinal study would be more convenient in terms of reliability (Sekaran & Bougie, 2016). If the same individual would be questioned on their level of perceived employability and experience of a career shock, a trend showing results over time would be possible. The second limitation is the fact that the researcher used convenience sampling in order to gather the data. This method increases the possibility of over or underrepresentation in the data sample (Etikan et al., 2016). Checking the data, we found that this is in fact happening. The results of the control variable 'education' show an overrepresentation of individual with a higher educational background. Although this might not be relevant, this is very disproportional compared to the population of the Netherlands. The third limitation and also a possible direction for future research is the addition of adding the sector the individual is working in as a control variable. Although not added in this research, there are signs in the literature that there is in fact a correlation between the experience of a career shock and the level of perceived employability associated with the sector the individual is operating in (Akkermans, 2020; Richardson & Kraimer, 2020; Mckenna, 2021). Akkermans,

2020 mentions that individual working in sectors that would benefit from a lockdown would most likely experience a higher perceived employability. Examples are the supermarket industry and the delivery sector. Further possible future research concerns the moderating variable used in this research, career resilience. As the data reveals, there is a correlation between career shocks and career resilience. Future research might be able to find a possible significant mediating role for career resilience on the direct association between career shocks and career outcomes, such as perceived employability. Considering the fact that it is likely that in the future another pandemic will occur, the theory concerning this subject should be extended.

Practical implications

Practical implications resulting from this research refer to both individuals and organizations. As stated in the introduction, the responsibility of employability is shifting from the organization to the individual (Clarke, 2009). The decrease of demand on the labour market, combined with the COVID-19 pandemic happening makes this shift even more relevant. If the level of career resilience is indeed associated with the degree in which a career shock affects the individual, as mentioned in the previous paragraph, individuals could benefit from this information by strengthening their level of career resilience. This way individual could protect themselves during future major life events.

In addition, pandemics and global outbreaks will occur more frequently in the future Lindahl and Grace (2015). Although the findings in the research were not significant, organizations could translate the intentions of this research from micro level to macro level by securing their operations during future pandemics by being resilient through differentiation of their operations. By showing resilience on macro level organizations may safeguard future sales. For instance, KLM (Royal Dutch Airlines), which was heavily impact by governments restrictions, could try to focus more on parcel delivery in order to prevent a total depletion of sales when future pandemics break out. Although this may sound far-fetched, a recurrence of the 2020 sales year would be something organizations like KLM would drastically try to prevent. On micro level, again using KLM as an example, organizations could stimulate employees to increase their resilience by showing the importance and providing training.

References

Akkermans, J., Seibert, S.E., & Mol, S.T. (2018). Tales of the unexpected: Integrating career

shocks in the contemporary careers literature. SA Journal of Industrial Psychology/SA

Tydskrif vir Bedryfsielkunde, 44(0), a1503. https://doi. org/10.4102/sajip.v44i0.1503

Baarda, B. (2014). *Dit is onderzoek! Handleiding voor kwantitatief en kwalitatief onderzoek.*

Groningen: Noordhoff Uitgevers bv.

Becker, G. (1993) Human Capital: A Theoretical and Empirical Analysis with Special

Reference to Education, 3rd edn. Chicago, IL: The University of Chicago Press.

Berntson, E., Sverke, M. and Marklund, S. (2006), "Predicting perceived employability: human

capital or labor market opportunities?", Economic and Industrial Democracy, Vol. 27,

pp. 223-44.

Blokker, R., Akkermans, J., Tims, M., Jansen, P., & Khapova, S. (2019). Building a

sustainable start: The role of career competencies, career success, and career shocks in

young professionals' employability. Journal of Vocational Behavior, 112, 172–184.

https://doi.org/10.1016/j.jvb.2019.02.013.

Borland, J., Charlton, A. (2020). "The Australian Labour Market and the Early Impact of

COVID-19: An Assessment". The Australian Economic Review, vol. 53, no. 3, pp. 297–

324.

Carson, K. D., & Bedeian, A. G. (1994). Career Commitment: Construction of a Measure and

Examination of Its Psychometric Properties. Journal of Vocational Behavior, 44(3),

237–262. doi:10.1006/jvbe.1994.1017

Caza, B. B., & Milton, L. P. (2012). Resilience at work: Building capability in the face of

adversity. In K. S. Cameron & G. M. Spreitzer (Eds.). The Oxford handbook of positive

scholarship, (pp. 895-908). Oxford: Oxford University Press.

Clarke, M. (2009), "Plodders, pragmatists, visionaries and opportunists: career patterns and

employability", Career Development International, Vol. 14, pp. 8-28.

Coetzee, M., Mogale, P. M. ., & Potgieter, I. L. . (2015). Moderating role of affectivity in career

resilience and career anchors. Journal of Psychology in Africa, 25(5), 438–447.

doi:10.1080/14330237.2015.1101272

De Cuyper, N., Bernhard-Oettel, C., Berntson, E., De Witte, H. and Alarco, B. (2008),

"Employability and employees' well-being: mediation by job insecurity", Journal of

Applied Psychology: An international Review, Vol. 57 No. 3, pp. 488-509.

De Cuyper, N., De Witte, H., Kinnunen, U. and Na¨tti, J. (2010), "Job insecurity and employability in Finnish temporary versus permanent employees: associations with well-being", International Studies of Management & Organization, Vol. 40, pp. 57-73.

De Cuyper, N., Van der Heijden, B. I., & De Witte, H. (2011a). Associations between perceived employability, employee well-being, and its contribution to organizational success: a matter of psychological contracts? The International Journal of Human Resource Management, 22, 1486–1503.

DiRenzo, M.S. and J.H. Greenhaus (2011), 'Job search and voluntary turnover in a boundaryless world: A control theory perspective', Academy of Management Review, 36, 567–89.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling an purposive sampling. *American journal of theoretical and applied statistics*, *5*(1), 1-4. doi: 10.11648/j.ajtas.20160501.11

Field, A. (2018). *Discovering statistics using SPSS* (5th). London: Sage

Forrier, A., & Sels, L. (2003a). The concept employability: a complex mosaic. International Journal of Human Resources Development and Management, 3(2), 102-124.

Forrier, A., & Sels, L. (2003b). Temporary employment and employability: training opportunities and efforts of temporary and permanent employees in Belgium. Work, Employment & Society, 17(4), 641-666.

Forrier, A., L. Sels and D. Stynen (2009), 'Career mobility at the intersection between agent and structure: A conceptual model', *Journal of Occupational of Organizational Psychology*, 82, 739–59.

Fugate, M., A.J. Kinicki and B.E. Ashforth (2004), 'Employability: A psychosocial construct, its dimensions, and applications', *Journal of Vocational Behavior*, **65**, 14–38.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. American Psychologist, 44, 513–524.

Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: advancing conservation of resources theory. Applied Psychology, 50, 337–421.

Hobfoll, S. E. (2002). Social and psychological resources and adaptation. Review of General Psychology, 6, 307–324.

Hollenbaugh, M. (2016, 9 May). *Missing Data SPSS Tutorial* [Video file]. Retrieved from https://www.youtube.com/watch?v=jgFKK6H_mJk

Jager, J., Putnick, D. L., & Bornstein, M. H. (2017). More than just convenient: the scientific

merits of homogeneous convenience samples. *Monographs of the Society for Research in Child Development*, *82*(2), 13–30. doi: 10.1111/mono.12296

Kinnunen, U., Mäkikangas, A., Mauno, S., Siponen, K., & Nätti, J.. (2011). Perceived employability. *Career Development International*. Career Development International. http://doi.org/10.1108/13620431111115604

Lindahl, J. F., Grace. D. (2015). The consequences of human actions on risks for infectious diseases: a review, Infect. Ecol. Epidemiol. 5 (1) (2015) 30048.
McQuaid, R. W., Lindsay, C. (2005). The concept of employability. Urban studies, Vol. 42, No 2, 197-219, February 2005

McKenna, S. (2021). Career shock: the profound effect of COVID-19 on four Australian middle managers. LSE Business Review (07 May 2021). Blog Entry.

Mishra, P., & McDonald, K. (2017). Career Resilience: An Integrated Review of the Empirical Literature. *Human Resource Development Review*, *16*(3), 207–234.

Moorhouse, A., & Caltabiano, M. L. (2007). *resilience and unemployment: exploring risk and protective influences for the outcome variables of depression and assertive job searching. Journal of Employment Counseling, 44(3), 115–125.*

Ngo, Hang-Yue & Liu, Huimin & Cheung, Francis. (2017). Perceived employability of Hong Kong employees: its antecedents, moderator and outcomes. Personnel Review. 46. 17-35. 10.1108/PR-01-2015-0015.

Rauthmann, J. F. (2015). Structuring situational information: A road map of the multiple pathways to different situational taxonomies. *European Psychologist, 20*(3), 176-189. doi:10.1027/1016- 9040/a000225

Rochat, S., Masdonati, J., & Dauwalder, J. P. (2017). Determining career resilience. In K. Maree (Ed.), Psychology of career adaptability, employability and resilience (pp. 125–141). Springer.

Rothwell, A. and Arnold, J. (2007), "Self-perceived employability: development and validation of a scale", Personnel Review, Vol. 36, pp. 23-41.

Rummel, Sophie & Akkermans, Jos & Blokker, Rowena & Gelderen, Marco. (2019). Shocks and entrepreneurship: a study of career shocks among newly graduated entrepreneurs. Career Development International. ahead-of-print. 10.1108/CDI-11-2018-0296.

Rutter, M. (1987). *Psychosocial resilience and protective mechanisms. American Journal of Orthopsychiatry, 57(3), 316–331.* doi:10.1111/j.1939-0025.1987.tb03541.x

S. Lakshmi Priyadarsini, M. Suresh, Donald Huisingh. (2020). What can we learn from

previous pandemics to reduce the frequency of emerging infectious diseases like COVID-19?, Global Transitions, Volume 2, 2020,

Sedgwick, P. (2014). Cross sectional studies: advantages and disadvantages. *BMJ: British Medical Journal (Online)*, *348,* 1-2. doi: 10.1136/bmj.g2276

Seibert, S. E., Kraimer, M. L., & Heslin, P. A. (2016). Developing career resilience and adaptability. Organizational Dynamics, 45(3), 245–257. https://doi.org/10.1016/ j.orgdyn.2016.07.009

Seibert, S. E., Kraimer, M. L., Holtom, B. C., & Pierotti, A. J. (2013). Even the best laid plans sometimes go askew: Career self-management processes, career shocks, and the decision to pursue graduate education. Journal of Applied Psychology, 98(1), 169– 182. https://doi.org/10.1037/a0030882.

Sekaran, U. S., & Bougie, R. J. (2016). *Research Methods for Business: A Skill-building Approach.* United Kingdom: John Wiley & Sons.

University of Twente (2013). *Handleidingen statistiek – moderator en mediator analyse met p rocess.* Retrieved from http://orsp.kean.edu/documents/Moderation_Meditation.pdf

Van der Heijde, C.M. and B.I.J.M. Van der Heijden (2006), 'A competence-based and multidimensional opera- tionalization and measurement of employability', *Human Resource Management*, 45, 449–76.

Vanhercke, D., N. De Cuyper, E. Peeters and H. De Witte (2014), 'Perceived employability: A conceptual review', Personnel Review, 43, 592–605.

Vîrga, D., De Witte, H. & Cifre, E. (2017) The Role of Perceived Employability, Core Self-Evaluations, and Job Resources on Health and Turnover Intentions, The Journal of Psychology, 151:7, 632-645, DOI: 10.1080/00223980.2017.1372346

Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of nursing measurement*, *1*(2), 165–178.

Wallinder, Y. (2018). Perceived employability among foreign-born employees, before and during crisis. *Economic and Industrial Democracy*. https://doi.org/10.1177/0143831X18804355

Appendix

Appendix A: Questionnaire

Bedankt dat u mee wilt doen aan dit onderzoek!

Met behulp van uw antwoorden zal ik onderzoeken in hoeverre de COVID-19 pandemie invloed heeft uitgeoefend op uw inzetbaarheid op de arbeidsmarkt. Daarnaast ga ik kijken in hoeverre persoonlijke veerkracht hier een mogelijke invloed op heeft. Dit zal ik onderzoeken door u een aantal stellingen te tonen waarna u kunt aangeven in hoeverre de stelling voor u van toepassing is. De antwoordmogelijkheden lopen van 1 (helemaal niet mee eens) tot 5 (helemaal mee eens). Per stelling krijgt u de mogelijkheid om één antwoordmogelijkheid in te vullen. Alle responses zullen zorgvuldig door mij persoonlijk geanalyseerd worden, en zullen niet terug te herleiden zijn naar een individu.

De eerste vragen zullen bestaan uit een paar algemene vragen die mijn onderzoek ook zullen ondersteunen. Daarna volgen de stellingen betreffende de COVID-19 pandemie. In totaal zal het invullen van de enquête u ongeveer 5 minuten aan tijd kosten.

Voor vragen of opmerkingen kunt u mij eventueel bereiken via mijn mail; P.h.deboer@student.ru.nl.

Perceived Employability	
Rothwell, A. and Arnold, J. (2007), "Self-perceived employability: development and validation of a scale", Personnel Review, Vol. 36, pp. 23-41.	
Item	**Schaal**
Ik heb het gevoel dat ik elke baan kan krijgen zolang mijn vaardigheden en ervaringen redelijk relevant zijn	1 ('Helemaal niet mee eens') tot 5 ('Helemaal mee eens')

Ik heb over het algemeen vertrouwen in een succesvolle uitkomst bij sollicitatiegesprekken en selectie-evenementen	1 ('Helemaal niet mee eens') tot 5 ('Helemaal mee eens')
De vaardigheden en capaciteiten die ik bezit, is waar werkgevers naar op zoek zijn	1 ('Helemaal niet mee eens') tot 5 ('Helemaal mee eens')
Ik kan gemakkelijk kennis vergaren over kansen in mijn gekozen vakgebied	1 ('Helemaal niet mee eens') tot 5 ('Helemaal mee eens')
De vaardigheden die ik in mijn huidige baan heb opgedaan, kan ik inzitten in een eventuele toekomstige baan	1 ('Helemaal niet mee eens') tot 5 ('Helemaal mee eens')
Ik zou me gemakkelijk kunnen omscholen om mezelf elders beter inzetbaar te maken.	1 ('Helemaal niet mee eens') tot 5 ('Helemaal mee eens')

Career shock-characteristic 'impact'	
Luhmann, M., Fassbender, I., Alcock, M., & Haehner, P. (2020). A Dimensional Taxonomy of Perceived Characteristics of Major Life Events. *Journal of Personality and Social Psychology*, http://dx.doi.org/10.1037/pspp0000291.	
Item	**Schaal**

De COVID-19 pandemie had een grote impact op mijn leven.	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')
De COVID-19 pandemie had veel gevolgen voor mijn dagelijks leven.	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')
De COVID-19 leidde tot veranderingen in mijn sociale, gezins- of werkrollen.	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')
Ik moest mijn leven veranderen door de COVID-19 pandemie.	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')

Career shock-characteristic 'emotional significance'

Luhmann, M., Fassbender, I., Alcock, M., & Haehner, P. (2020). A Dimensional Taxonomy of Perceived Characteristics of Major Life Events. *Journal of Personality and Social Psychology*, http://dx.doi.org/10.1037/pspp0000291.

Item	Schaal
De COVID-19 pandemie heeft me erg geraakt.	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')

De COVID-19 pandemie riep sterke gevoelens op.	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')
De COVID-19 pandemie had GEEN emotionele impact op mij. (-)	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')
De COVID-19 pandemie was emotioneel belangrijk voor mij.	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')
Ik was onverschillig voor de COVID-19 pandemie. (-)	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')
Ik word vaak aan de COVID-19 pandemie herinnerd	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')

Career shock-characteristic 'valence'	
Luhmann, M., Fassbender, I., Alcock, M., & Haehner, P. (2020). A Dimensional Taxonomy of Perceived Characteristics of Major Life Events. *Journal of Personality and Social Psychology*, http://dx.doi.org/10.1037/pspp0000291.	
Item	**Schaal**
De COVID-19 pandemie was voor mij gunstig.	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')

De COVID-19 pandemie was voor mij positief.	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')
De COVID-19 pandemie was vreugdevol.	1 ('Helemaal niet van toepassing') tot 5 ('Volledig van toepassing')

Career Resilience	
Carson, K. D., & Bedeian, A. G. (1994). Career Commitment: Construction of a Measure and Examination of Its Psychometric Properties. Journal of Vocational Behavior, 44(3), 237–262. doi:10.1006/jvbe.1994.1017	
Item	**Schaal**
De nadelen die samenhangen met het werk in mijn mijn vakgebied lijken soms te hoog. (-)	1 ('Helemaal onwaar') tot 5 ('Helemaal waar')
Gezien de problemen die ik in mijn huidige vakgebied tegenkom, vraag ik me soms af of ik er genoeg uit haal. (-)	1 ('Helemaal onwaar') tot 5 ('Helemaal waar')
Gezien de problemen die ik in mijn huidige vakgebied tegenkom, vraag ik me soms af of de persoonlijke last het waard is. (-)	1 ('Helemaal onwaar') tot 5 ('Helemaal waar')
De ongemakken die samenhangen met mijn huidige vakgebied lijken soms te groot. (-)	1 ('Helemaal onwaar') tot 5 ('Helemaal waar')
De voordelen van dit vakgebied zijn groter dan de kosten.	1 ('Helemaal onwaar') tot 5 ('Helemaal waar')

Control variables	
Item	**Schaal**
Geslacht	0 = Man 1 = Vrouw 2 = Overig
Leeftijd	In jaren:…
Soort contract	0 = Vast contract 1 = Tijdelijk contract 2 = Uitzendcontract
Niveau opleiding	1 = MBO 2 = HBO 3 = WO 4 = Overig

Appendix B: Output Factoranalysis

KMO and Bartlett's Test

Kaiser–Meyer–Olkin Measure of Sampling Adequacy.		.822
Bartlett's Test of Sphericity	Approx. Chi–Square	845.548
	df	66
	Sig.	<.001

Communalities

	Initial	Extraction
CS_I_Q1	1.000	.777
CS_I_Q2	1.000	.732
CS_I_Q3	1.000	.540
CS_I_Q4	1.000	.622
CS_ES_Q1	1.000	.571
CS_ES_Q2	1.000	.698
CS_ES_3_rr	1.000	.700
CS_ES_Q4	1.000	.564
CS_ES_5_rr	1.000	.580
CS_V_Q1	1.000	.673
CS_V_Q2	1.000	.804
CS_V_Q3	1.000	.337

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.708	39.230	39.230	4.708	39.230	39.230
2	1.635	13.622	52.853	1.635	13.622	52.853
3	1.256	10.467	63.320	1.256	10.467	63.320
4	.981	8.178	71.498			
5	.781	6.508	78.006			
6	.561	4.678	82.683			
7	.534	4.446	87.130			
8	.426	3.550	90.680			
9	.321	2.675	93.355			
10	.315	2.623	95.978			
11	.277	2.310	98.287			
12	.206	1.713	100.000			

Extraction Method: Principal Component Analysis.

Reliability Statistics

Cronbach's Alpha	N of Items
.757	12

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CS_I_Q1	33.2500	27.410	.680	.704
CS_I_Q2	33.2738	28.607	.543	.722
CS_I_Q3	33.0238	29.425	.523	.726
CS_I_Q4	33.4345	28.942	.529	.724
CS_ES_Q1	33.5536	28.177	.579	.717
CS_ES_Q2	33.6250	27.876	.641	.710
CS_ES_Q4	33.6905	29.293	.553	.723
CS_ES_3_rr	33.0774	28.000	.606	.714
CS_ES_5_rr	32.7857	30.972	.367	.744
CS_V_Q1	34.3274	36.533	-.159	.801
CS_V_Q2	34.6190	35.662	-.078	.788
CS_V_Q3	35.1964	36.051	-.111	.781